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The Impact of Capital Structure on the Financial Performance of A-Share Manufacturing Listed Companies

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Abstract. In terms of financing decisions, capital structure refers to the proportion of equity capital and debt capital in a firm, which influences its financing costs, financial risk, and profitability. By examining the link between capital structure and corporate performance, this paper analyzes the debt financing of A-share listed manufacturing companies. Based on this analysis and relevant capital structure theories, the study utilizes literature review, case analysis, and inductive approaches to examine how debt financing scale and debt maturity structure affect corporate financial performance. The results indicate that moderate debt financing can enhance firm performance through tax shield and financial leverage effects; however, high debt levels increase interest burdens and bankruptcy risks. In addition, a high proportion of short-term debt intensifies liquidity pressure, while a balanced long-term debt structure better fits the long-term needs of fixed asset investment in manufacturing. Based on these findings, the paper further proposes four pathways for optimizing capital structure, including debt scale optimization, debt structure adjustment, diversification of financing channels, and establishment of risk control mechanisms, to help manufacturing enterprises reduce financial risks and improve operational performance.

Keywords: Capital structure, listed manufacturing companies, financial performance, debt financing, optimization pathways

1. Introduction

As China's capital market continues to grow, A-share listed manufacturing companies often rely on debt financing to expand production and upgrade equipment. Manufacturing is a capital-intensive industry that requires large and long-term investment in factory construction, equipment purchase, and technology upgrades, which largely have long payback periods. This inherent feature makes manufacturing firms rely heavily on debt financing. However, whether a firm's capital structure is well designed directly affects its financing costs, financial risk, and profitability. In recent years, as external financing environments have evolved and financial regulatory requirements have tightened, manufacturing firms face the pressing challenge of securing necessary operating funds while effectively managing financial risks, optimizing the scale and maturity structure of debt financing to align with asset return cycles. Against this backdrop, this paper focuses on the capital structure of A-share manufacturing listed companies, analyzing the internal mechanisms through which debt financing scale and maturity structure influence corporate development. Specifically, the study uses

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literature review to summarize relevant theoretical findings on capital structure, case analysis to examine actual financial data from enterprises, and inductive analysis to derive optimal pathways for capital structure improvement. The research aims to add to existing research on capital structure and firm performance while providing practical suggestions for listed manufacturing companies to improve financing decisions, reduce financial risks, and enhance operating performance.

2. Capital structure theory and financing structure of A-share manufacturing listed companies

2.1. The connotation and composition of capital structure

In financial terms, capital structure refers to the mix and share of different sources of capital in a firm. It mainly consists of equity and debt capital. Equity financing is raised by issuing stocks or bringing in investors. It does not require regular repayment of principal, but it may dilute the control rights of existing shareholders. In contrast, debt financing is raised via bank loans, bond issuance, and other forms. And it usually has lower financing costs and provides a tax shield through interest expenses, but firms must bear fixed debt payments.

For A-share manufacturing listed companies, the choice of capital structure is closely related to the enterprise's operating characteristics. To meet their large funding needs for factory construction, equipment purchase, and technology upgrades, manufacturing firms generally have long payback periods for these investments. Therefore, firms need to set a proper mix of equity and debt financing based on their asset structure and operating conditions. This helps them meet their funding needs, reduce financing risks, and maintain a stable capital structure.

2.2. Capital structure theory and financing decision

Capital structure theory mainly explains the capital allocation and financing behavior of enterprises from the perspectives of enterprise value, financing costs, and information asymmetry. The MM theory holds that in a fully capital market, capital structure does not affect the enterprise value. Due to taxes, transaction costs, and information asymmetry in the real market, later theories further examine the impact of capital structure on firms' financing behavior and operating performance. The trade-off theory believes that debt financing can reduce financing costs through the interest tax shield, but excessive debt will increase financial risks and bankruptcy costs. As a result, enterprises need to balance the benefits and risks of debt financing. This balance is reflected in the relationship between capital structure and financial performance. Studies have found that a reasonable debt level can improve firm performance, while excessive debt may reduce profitability [1, 2].

The pecking order theory explains firms' financing choices from the perspective of information asymmetry, suggesting that firms usually prefer internal financing, followed by debt financing and, finally, equity financing. Due to the information cost of external financing, the choice of financing method will affect the capital structure arrangement. Existing studies have demonstrated that debt financing scale and debt maturity structure affect firms' financial performance. In particular, the total debt ratio and long-term debt ratio can affect firms' return on assets (ROA) [3].

2.3. Debt structure characteristics of A-share manufacturing listed companies

Due to their large capital needs, long investment cycles, and slow capital recovery, manufacturing firms have distinct financing needs. Therefore, their debt structure needs to be matched with the asset maturity. Since factory construction, equipment purchase, and technology upgrades have long

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payback periods, manufacturing firms need to balance long-term and short-term debt to meet the needs of long-term investment and daily operations.

From the perspective of the debt structure of A-share manufacturing listed companies, there are significant differences in the debt level and debt term configuration of enterprises. On the one hand, the overall debt ratio of manufacturing listed companies is around 40%. However, some firms have much lower debt ratios, while others have ratios above 70%. This difference reflects variations in firms' financing strategies and risk preferences. On the other hand, manufacturing listed companies generally have a high share of short-term debt and a low share of long-term debt. Relevant data show that the average short-term debt ratio of A-share manufacturing listed companies is around 35%, while the average long-term debt ratio is only about 7%. This gap shows that firms rely more on short-term borrowing and operating liabilities, while long-term funding sources remain limited. Studies of Chinese manufacturing listed companies also find a mismatch in debt maturity structures [4].

3. The impact of capital structure on the financial performance of A-share manufacturing listed companies

3.1. Debt financing scale and enterprise financial performance

The debt financing scale reflects the extent to which firms use debt funds to support their business operations. Its impact on financial performance depends on the balance between the returns and costs of debt financing. At a proper level, debt can reduce financing costs through tax shield effects and use financial leverage to improve fund use efficiency. As a result, it can help improve firm performance. Nevertheless, when the debt scale exceeds the reasonable range, interest expenses and debt repayment pressure increase, and financial risks rise, which may reduce the firm's profitability and the ability to invest continuously.

Previous studies have shown that there is a non-linear relationship between debt financing scale and enterprise financial performance. Based on studies of Chinese manufacturing listed companies, leverage has been found to have a curvilinear relationship with operating performance. At moderate levels, higher debt can improve firm performance, but beyond a certain level, further increases in debt may reduce performance [1]. This finding is also consistent with international studies, which suggest that the relationship between capital structure and financial performance is non-linear. Once debt exceeds a reasonable level, the costs of debt gradually outweigh its benefits [1, 2]. In addition, some studies have found that the debt-equity ratio is negatively correlated with asset return rate, and a higher proportion of equity capital is conducive to improving enterprise performance [5]. Thus, the impact of debt financing scale on financial performance depends on whether the debt level is within the reasonable range.

3.2. Debt maturity structure and enterprise operational stability

The debt maturity structure reflects the proportion of long-term and short-term debts of enterprises. Its core lies in the matching degree between the debt repayment period and the asset return cycle. Compared with the debt financing scale, debt maturity structure has a greater impact on the stability of firms' fund use. This is because manufacturing firms make large investments in fixed assets and often have long payback periods. For this reason, a proper mix of long-term and short-term debt can reduce maturity mismatch risk and improve fund use efficiency.

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In terms of short-term debt, it offers fast access to funds and greater flexibility, hence making it suitable for firms' daily operating needs. However, if enterprises overly rely on short-term debts to support long-term asset investment, it is likely to lead to a mismatch between the asset return cycle and the debt repayment period, increase debt rolling pressure, and increase liquidity risks when the financing environment changes. Relevant studies found that an improper debt maturity structure can increase financial pressure and reduce operating stability [3, 5, 6]. Long-term debt, by comparison, has a longer repayment period and is more suitable for supporting the long-term investment needs of manufacturing firms. Increasing long-term funding sources can reduce short-term debt repayment pressure and improve the stability of fund use. However, long-term debt usually has higher credit requirements, so firms need to adjust the mix of long-term and short-term debt based on their own operating conditions.

3.3. The mechanism of capital structure affecting financial performance

Through financing costs, financial risks, and corporate governance, capital structure mainly affects firms' financial performance. Different financing methods have different costs. Debt financing can lower financing costs through the interest tax shield. However, excessive debt increases interest expenses and repayment pressure, which can raise financial risks and reduce firms' profitability. At the same time, reasonable debt financing can exert the supervisory role of creditors, restrain the behavior of management, and improve the efficiency of fund utilization; but when the debt level exceeds the reasonable range, debt constraints may limit the investment activities and operational adjustment capabilities of the enterprise, thereby affecting its long-term development.

Further relevant studies have shown that the impact of capital structure on financial performance is also influenced by the enterprise's development stage and investment decisions. From a firm life cycle perspective, studies show that firms at different stages have different financing needs and risk tolerance. For example, growth-stage firms depend more on external financing, while mature firms need to pay more attention to debt risk control [7]. Furthermore, the capital structure exerts an influence on enterprise performance by affecting investment efficiency. Excessive debt may restrict investment in research and development as well as technological upgrades, thereby weakening the long-term competitiveness of the enterprise [8]. When considering asset allocation, the allocation of assets also affects the link between capital structure and firm performance. In particular, a high share of long-term financial assets may divert resources from the main business and weaken firms' ability to grow [9].

4. The optimization path of capital structure for A-share manufacturing listed companies

4.1. Optimization of debt scale and debt structure

To address the problems of debt level and debt maturity structure in manufacturing listed companies, firms need to control their debt level based on their own operating conditions and improve the mix of long-term and short-term debt. In terms of debt scale, enterprises should keep debt at a proper level based on industry features, development stage, and cash flow to avoid overreliance on debt financing. Relevant studies show that there is a certain range relationship between the leverage level of Chinese manufacturing enterprises and their operating performance. Within a reasonable debt range, debt financing can play a positive role, but exceeding a certain level may increase financial pressure and reduce performance [4]. Therefore, enterprises should control the debt scale according to their own debt repayment capacity, especially for heavy asset enterprises, as fixed assets account

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for a high proportion and the recovery period is longer, they need to pay more attention to the matching between debt level and cash flow.

At the level of debt maturity structure, enterprises should optimize the allocation of long-term and short-term debts to alleviate the liquidity risks brought by the concentration of short-term debts due. In particular, long-term assets with long payback periods, such as factories and production lines, should be funded primarily by long-term loans and corporate bonds. By contrast, short-term borrowings and operating liabilities should mainly be used for daily working capital needs. Through these arrangements, the problem of mismatch between the asset return cycle and the debt repayment period can be reduced at the root.

4.2. Expansion of financing channels and improvement of structure

The financing channel structure affects the capital structure and financial risks of enterprises. At present, some A-share manufacturing listed companies still rely heavily on bank loans for financing, and their financing sources are relatively limited. And this makes them more likely to face capital pressure when the external financing environment changes. Therefore, enterprises need to optimize the financing structure and reduce their reliance on a single debt financing method.

For manufacturing enterprises with large capital needs and strong growth potential, they can appropriately increase the proportion of equity financing and introduce long-term capital to alleviate the debt financing-induced debt repayment pressure. Meanwhile, enterprises should reasonably control the scale of equity financing according to their own development stage and avoid excessive dilution of control rights. For firms with stable operations and long-term investment needs, issuing medium- and long-term bonds can increase long-term funding sources, improve the debt maturity structure, and reduce reliance on short-term financing. In addition, enterprises can reasonably utilize financing methods such as financial leasing, asset securitization, and supply chain finance based on the characteristics of assets and business needs, to improve financing flexibility and form a diversified financing system. By optimizing the financing channel structure, enterprises can reduce financing risks and improve the stability of the capital structure [4, 5].

4.3. Identification and control of financial risks

The changes in debt scale and debt structure will affect the debt repayment capacity and operational stability of enterprises. Therefore, in the process of optimizing the capital structure, manufacturing enterprises need to establish a financial risk identification and control mechanism.

Enterprises should establish a financial risk early warning system and dynamically monitor debt risks through indicators such as debt ratio, liquidity ratio, quick ratio, and interest coverage ratio. When abnormal changes occur in debt level or debt repayment capacity, the financing plan should be adjusted promptly, debt growth should be controlled, and the debt repayment pressure should be reduced by raising operating cash flow. Given the long investment cycles and slow cash recovery of manufacturing firms, good cash flow management is important for ensuring their ability to repay debt. Enterprises need to make good predictions and budget arrangements, improve the efficiency of fund use, and enhance the ability to cope with changes in the external financing environment. In addition, the capital structure should be adjusted based on changes in the enterprise's operating conditions and external environment. Firms should set a reasonable debt level based on profitability, asset structure, and development stage. This can help avoid high leverage over a long period, reduce financial risks, and improve capital structure stability [10].

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5. Conclusion

This paper conducts research on the capital structure issue of A-share manufacturing companies. Through literature review and case analysis, it examines the relationship between debt financing scale, debt maturity structure and corporate financial performance. The study shows that there is an inverted U-shaped relationship between debt financing scale and financial performance. Moderate debt financing can utilize the tax shield effect and financial leverage effect to enhance corporate performance, but excessive debt levels will increase interest burdens and financial risks, thereby reducing corporate profitability. At the same time, debt maturity structure also affects the stability of firm operations. In particular, a high share of short-term debt can increase liquidity pressure, while a reasonable share of long-term debt can better match the investment cycle of manufacturing fixed assets and reduce refinancing risk. Furthermore, capital structure also influences firm performance through financing costs, financial risks, and governance constraints. As a result, firms need to adjust their financing structure based on their stage of development. In practice, manufacturing firms listed on the stock market should control their debt level, improve their debt maturity structure, strengthen cash flow management, and diversify their financing channels to reduce financial risks and improve operating performance. However, the research mainly adopts literature analysis and case analysis methods, lacking large sample empirical tests, and does not further distinguish the differences in capital structure selection among different manufacturing sub-sectors. Future research can conduct empirical analysis using panel data models and further examine the impact of macroeconomic environment and industry characteristics on the optimization effect of capital structure.

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