

An Analysis of Optimal Decision on Capital Structure

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Abstract. Achieving optimal financial performance is the ultimate objective for enterprises when crafting their capital structure. This pursuit, however, is far from one-size-fits-all, as the intricacies of various industries and the idiosyncrasies of host countries contribute to the diversity in capital structure configurations. Leveraging the foundational concepts of the Modigliani and Miller (M&M) theorem, this article delves into a comprehensive exploration of the intricacies surrounding capital structures in distinct industry segments. Capital-intensive industries, labor-intensive industries, and research and development (R&D) sectors are scrutinized under the analytical lens to decipher the unique considerations at play. Moreover, this study extends its purview to encompass the dichotomy between the financial markets of developing and developed nations. By doing so, it unveils key distinctions in capital market dynamics, risk profiles, and financing opportunities. These insights offer enterprises a roadmap for making well-informed decisions pertaining to their optimal capital structure. In essence, this article provides a valuable reference point, enabling companies to align their financial strategies with the precise needs of their industry and the nuances of their operating environment.

Keywords: Capital Structure, Debt and Equity, Optimal Decision-Making.

1. Introduction

With the continuous changes in the global business landscape, the common goal pursued by enterprises is to achieve optimal financial performance by building a capital structure. Because key decisions in capital structure have a prominent impact on the cost of capital, risk profile, and overall value of the company. The optimal capital structure is estimated through a combination of debt and equity, minimizing the company's weighted average cost of capital (WACC) while maximizing market value.

Huawei is a multinational company focused on telecommunications and technology, and as one of the most prominent participants in the technology industry, it has done a great job in exploring capital structure decisions. Huawei needs to respond to changes in the international political situation, and its capital structure includes equity capital, debt capital, and internal capital. As a technology company, its capital structure ensures that Huawei has sufficient funds to invest in research and innovation to meet the constantly changing market demands. Huawei's global expansion plan requires a large amount of capital, and its capital structure provides financial support for the company, helping it consolidate its international market position while attracting more investors [1]. Through a reasonable capital structure, Huawei's financial risk is reduced, which helps the company cope with market uncertainty.

From the perspective of optimal capital structure, Huawei's decision not to go public is primarily because it can help the company avoid market pressure. Currently, Huawei does not need to fulfill shareholder expectations and prioritizes meeting short-term profit targets. Huawei's privatization status allows the company to focus more on long-term strategies. Secondly, listed companies rely on debt financing to meet their expansion plans, allowing Huawei to freely manage its debt and reduce financial risks. Thirdly, listed companies need to publicly disclose financial information and business strategies. From this perspective, Huawei attaches great importance to the protection of intellectual property rights to ensure its core competitive advantage, which may lead to the leakage of technology and knowledge [2]. Therefore, although going public helps the company's development, the above decisions help Huawei maintain its stable capital structure and long-term development.

Therefore, for different industries, the emphasis on optimal capital structure varies. Huawei's private status contributes to the company's flexibility and autonomy and can optimize its capital structure. This article takes Modigliani and Miller's theorem (M&M theorem) as the theoretical framework, and by studying the capital structure of different industries and different market environments, it clarifies how companies make the best choice strategy and considerations for their capital structure.

2. Theoretical Framework

The theoretical basis of this article is the M&M theorem, which completely changes people's understanding of the dynamics of capital structure. The M&M theorem establishes a fundamental framework for comprehending how a company's value relates to its capital structure. This theorem consists of two key propositions. With the presence of taxes, a company's value remains manageable regardless of its choice between debt or equity capital for raising funds. This selection has no impact on the company's overall market worth. Therefore, if a company prefers debt financing under certain conditions, the risk increases as the debt ratio increases, which is reflected in the decline in stock prices [3]. The advantages gained by a company through debt financing are counterbalanced by the decrease in stock prices, resulting in the company's total value (combining stocks and debt) remaining constant. In the presence of corporate tax, the optimal capital structure involves maximizing debt utilization, as businesses can be tax-free through interest payments on debt. Therefore, due to the protective effect of taxation, companies with more debt are usually considered more valuable.

The optimal capital structure of a company varies across different industries and market environments due to differences in tax policies, risk preferences, industry characteristics, and market conditions. However, the limitation lies in the fact that the M&M theorem ignores deviations from reality, assuming the complexity of taxation, bankruptcy costs, and market defects, as well as ignoring specific industry factors.

3. Capital Structure across Industries

3.1. Capital-Intensive Industries

The capital structure decisions of real estate enterprises are usually influenced by the market environment, the enterprise's risk management level, and the national market's tax policies. The capital sources of enterprises in this industry typically include equity and debt. Real estate developers typically raise funds through equity, which provides financial flexibility for companies but typically requires companies to analyze future profits and control rights. As a characteristic of a capital-intensive industry, the rapid development of the real estate industry requires a large amount of financial support, and the company's own funds and equity financing funds are often difficult to meet its development and expansion needs [4]. Real estate companies also borrow funds through debt capital to support the development and operation of projects. Debt capital typically provides a tax advantage for businesses and requires interest payment and principal repayment. Some governments or financial institutions provide low-interest loans and financing plans specifically designed for real estate enterprises, enabling developers to obtain necessary funds on favorable conditions and reduce financing costs. This has also led to the development model of "high leverage, high debt, and high turnover" in real estate enterprises. By leveraging financial leverage and borrowing to operate, enterprises maintain high-speed expansion while also generating high risks. This not only hinders the stable operation of enterprises but also easily leads to market fluctuations and financial risks.

In a study by Ngoc et al., a survey was carried out on 25 real estate industry firms that were listed on HOSE from 2011 to 2018 [5]. The findings revealed a detrimental effect of capital structure on the performance of real estate companies. Furthermore, the study highlighted that the presence of a higher level of tangible fixed assets within a listed real estate company leads to improved performance efficiency. Enterprises in the real estate industry can improve their performance by using leverage.

When using leverage, companies can gain tax protection benefits from interest and find a threshold for debt utilization. Before making investment decisions, investors should consider the debt ratio of real estate industry enterprises. Additionally, tangible assets positively influence the performance of these enterprises. The real estate sector can enhance long-term investments and is inclined to upgrade machinery and equipment to enhance product quality. This, in turn, aids companies in boosting their market competitiveness, profits, and overall business performance. At the same time, the research results of Ngoc also indicated that larger companies are more likely to bear debt, as they can diversify risk and thus leverage the tax protection benefits of optimal interest loans to improve business performance.

3.2. Labor-Intensive Industries

The capital structure of retail enterprises exhibits diversified characteristics. With the retail market's gradual maturity, enterprises' profit level is gradually increasing, and the amount of self-owned funds is constantly increasing [4]. However, the own funds of small and medium-sized retail enterprises with smaller capital scales still need to improve, so they are more inclined towards capital market financing. In terms of equity financing, going public is the main channel for retail enterprise financing. In terms of debt financing, loans are the main tool for retail enterprise financing, but there are still significant risks in the business process. The working capital of retail enterprises mainly comes from equity financing, debt financing, and self-owned funds. Among them, self-owned funds are the main source of funds for retail enterprises and the cornerstone of their operations. Equity financing and debt financing are financing methods developed by retail enterprises to address factors such as fund shortages or investment expansion, which can effectively improve the scale of enterprise funds and financing capabilities. As a labor-intensive industry, the retail industry usually relies on a large amount of labor as its main resource. Therefore, retail enterprises usually tend to adopt a relatively low-leverage capital structure to reduce financial risk and ensure stable cash flow. The industry typically needs to maintain a high level of liquidity to meet daily operational needs such as employee salaries and inventory maintenance, and its optimal capital structure typically requires restructured liquidity to cope with market fluctuations.

The research of Komarudin & Affandi examined the impact of the capital structure of retail companies on corporate value, with a sample of 21 retail companies listed on IDX [6]. The research indicated that capital structure and profitability have a significant impact on corporate value, but the characteristics of the retail industry adjusted by disposable income have no significant impact on corporate value. The presence of debt in the capital structure is unlikely to exert a significant influence on the company's value. Therefore, the use of debt in the retail industry's asset structure will increase company value by saving taxes from interest (savings), thereby reducing post-tax capital costs. When the debt level of a retail enterprise is lower, the company's value is higher. Due to the reduced obligation of the company to repay its debts to creditors, the profits generated by the company increase, leading to an increase in the company's stock price. Therefore, the value of the company will also increase in the eyes of potential creditors or the market. Retail managers establish a company's reputation and image by motivating stakeholders and creating communities as part of investment decisions, thereby increasing the company's value.

3.3. Technology & Healthcare

High-tech enterprises typically have characteristics such as high risk, high growth, and high returns, so the optimal capital structure usually needs to include sufficient funds to cope with uncertainty. They hope to support innovation, expansion, and research and development by reducing debt and relying on equity financing. Banks with the main principle of "security" are usually unable to provide financial support for the industry. At the same time, venture capital, as an equity investment, is the main source of early funding for high-tech enterprises. At this stage, the company's debt ratio is relatively low. A balanced capital structure can help businesses manage risks by avoiding excessive leverage, but excessive leverage may lead to financial distress during economic downturns. The value

of technology companies depends on knowledge capital, so such companies may place more emphasis on internal investment, including research and development and talent cultivation.

The technology industry is developing rapidly, and industry competition is very fierce. Enterprises need to maintain flexibility to quickly respond to new market opportunities. Meanwhile, competing for market share requires large-scale investment. Therefore, its optimal capital structure needs to support market share expansion while emphasizing rapid decision-making and execution. Therefore, as technology companies gradually develop and mature, their cash flows become more predictable. These companies often incorporate debt financing into their expansion or acquisition funds and help optimize their capital structure by utilizing the tax advantages of interest reduction. At this stage, the company's debt ratio is medium to high. Technology companies with strong profitability will choose a zero-liability business model to minimize financial risks to the greatest extent possible. Technology companies typically have variable debt ratios, differentiated by business and department.

The research of Spitsin et al. found that the profitability of high-tech enterprises improves their capital structure, and the stronger the profitability, the lower the share of borrowing capital for enterprises [7]. However, as the company's assets or sales grow, its leverage ratio increases. With regard to asset growth, the collective effect of the aforementioned factors mitigates the adverse consequences of asset expansion. Most high-tech companies experience the need for increased debt capital, resulting in a deterioration of their capital structure and financial stability, especially during periods of super growth. Son & Kim analyzed the relationship between different technology departments and capital structure [8]. In the relationship between capital structure and supply chain management, the higher the strength of strategic alliances and horizontal integration among global suppliers, the lower the company's debt ratio. The debt ratio of first-tier suppliers is lower than that of second-tier suppliers. The greater the vertical integration between technology companies and ISAs, the more likely they will adopt lower debt ratio policies.

4. Capital Structure across Markets

4.1. Developed Countries vs Developing Countries

Financial markets in developing and developed countries exhibit significant disparities owing to variations in economic development, social and cultural contexts, and national economic governance systems. From the perspective of financial markets, the main differences between the two lie in their level of development, market size, diversity of financial instruments, regulatory systems, and market transparency. Firstly, the financial markets of developed countries have more advanced financial institutions and more complex financial instruments. Various types of financial instruments, such as stocks, bonds, futures, options, foreign exchange, etc., are used to meet different investment and risk management needs. Its developed and mature financial market has attracted more diverse market participants, including large banks, investment companies, insurance companies, and individual investors. Its market size is usually large, with more listed companies and market participants. However, financial markets in developing countries are usually small in scale, with limited financial instruments and services, and some markets may only be dominated by stocks and underlying bonds. Its financial infrastructure is less complete than developed countries. The number of listed companies in the financial markets of developing countries is relatively small, and market activities are restricted. In addition, developed countries usually have sound financial regulatory systems to protect investors' rights and maintain market stability. These regulatory agencies strictly adhere to standards and ensure an open, transparent, and fair market system. The market strictly discloses and discloses information in accordance with regulations, making it easier for investors to obtain information about the company and the market while also being more closely connected to the market. However, the regulatory environment in developing countries is relatively relaxed, and in some regions, inadequate regulation leads to higher regulatory risks.

In their study, Sabir et al. analyzed data spanning from 1996 to 2016, including low-income, middle-income, upper-middle-income, and high-income countries [9]. The findings indicate that

financial markets in developed countries exert more significant control coefficients on government effectiveness, political stability, regulatory quality, and the rule of law compared to their counterparts in developing nations. The research of Podrugina and Tabakh shows that with the low-interest rates and loose fiscal policies in the market, the cost of regulatory compliance in developing and developed countries has increased [10]. The technological development of developed countries has enabled some sectors of the financial market to break free from regulation and enter unregulated business areas. At the same time, the pressure on banks will also be reduced. The financial systems of developing countries are also more stringent, with a greater emphasis on modern technology and self-discipline.

4.2. Among Developing Countries

Due to differences in economic development level, regulatory framework, and financial infrastructure, there are also differences in financial markets in developing countries. Taking China and Vietnam as examples, China's financial market is one of the world's largest and most dynamic markets. It has the world's largest stock exchanges: the Shanghai Stock Exchange and the Shenzhen Stock Exchange. China's well-established banking system and bond market provide various financing options for market participants. Moreover, the financing tools in the Chinese financial market are very abundant, and the mature bond market has obvious advantages compared to Vietnam. Compared to China, Vietnam has a smaller financing market. The scale of its stock market and stock exchange is relatively small, and the banking industry plays an important role in Vietnam's financial market, with state-owned banks dominating. However, Vietnam is the new and most promising market according to the World Bank statistics [11].

From the perspective of investors, China's investor base is stable, including diversified investors such as domestic individual clients, institutional investors, and foreign investors. In coordination with this, China's regulatory framework is very complex and strict, controlling capital flows and foreign investment. Domestic investors in Vietnam dominate the market, with limited participation from foreign investors. Compared to China, Vietnam's market atmosphere is relatively closed, and its regulatory environment has taken measures to relax industry restrictions to attract foreign investment. In addition, the market transparency of both countries is gradually improving, and Vietnam still has a lot of room for improvement compared to China.

Some research indicates that as Southeast Asia is rapidly becoming a target for investors, East Asian countries such as South Korea and Japan have increased their investment in Vietnam in recent years, with Singapore being their largest investor. Vietnam has a rapidly growing economy, young digital technology, a constantly growing workforce, a cost-competitive production base, a stable government committed to growth, infrastructure development, and numerous free trade zones that have attracted foreign investment. And the country benefited from the Sino US trade war, and in order to avoid high tariffs, Chinese investors shifted their business to Vietnam. Hung believes that the fluctuations in the Chinese market have had a significant positive impact on the Vietnamese market [12]. The financial markets of China and Southeast Asian countries such as Vietnam are interdependent and have a sustained correlation. The Chinese stock market plays a prominent role and significant impact in most Southeast Asian stock markets and has led to a significant reduction in opportunities for international portfolio diversification [13].

5. Conclusion

The capital structure decisions of capital-intensive industries are usually influenced by market environment, enterprise risk management level, and national market tax policies. The sources of funding for enterprises in this type of industry typically include equity and debt, which can be leveraged to improve performance. Larger companies can diversify risk and utilize the tax protection benefits of optimal interest loans to improve business performance. The capital structure of labor-intensive industries is more diversified, and they are more inclined towards capital market financing,

listing financing, and loan financing. Labor-intensive industries typically tend to adopt relatively low-leverage capital structures to reduce financial risks and ensure stable cash flows. The R&D industry usually has the characteristics of high risk, high growth, and high return, so the optimal capital structure usually needs to include sufficient funds to cope with uncertainty. They support innovation, expansion, and research and development by reducing debt and relying on equity financing, and venture capital is a commonly used means of equity investment. In addition, there are significant differences in financial markets between developing and developed countries due to differences in economic development levels, social and cultural backgrounds, and national economic management systems. From the perspective of financial markets, developed countries' financial markets are more complex but their regulatory systems are more comprehensive, ensuring a more diverse range of financial services while also increasing transparency.

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