



Research on the Financing Risk Control Problem of High-tech Enterprises — Taking SuperMap Software Technology Company as an Example

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Abstract: With the rapid development of the global science and technology industry, high-tech enterprises have gained more and more attention around the world. These companies are often at the forefront of innovation-driven and technology-intensive industries, becoming an important part of national economies. However, due to their unique business model and product characteristics, such enterprises face many challenges and risks in financing. Therefore, it is particularly important to study the financing risk of high-tech enterprises. This paper will take SuperMap as an example, start with the concept of risk, and deeply discuss the risks and challenges faced by high-tech enterprises in the financing process, and try to put forward corresponding solutions, aiming to provide reference and reference for similar enterprises in the financing process, and promote their sustainable development

Keywords: high-tech, enterprises, financing, risk, SuperMap

1. Introduction

The high-tech industry, as a knowledge-intensive technology cluster based on the latest scientific achievements and leading the direction of social productivity, is characterized by distinct innovation, strategic importance, added value, permeability, and risk. The main research content of this paper is divided into three parts. The first part analyzes the current financing status of SuperMap Software Technology Co., Ltd., such as debt financing and equity financing. The second part summarizes the financing risks faced by SuperMap Software Technology Co., Ltd., including the imbalance in the ratio of long-term to short-term borrowing, and a significant funding gap. The third part proposes risk management strategies for financing in SuperMap Software Technology Co., Ltd., such as optimizing bank-enterprise relationships to obtain long-term loans, and alleviating cash flow pressure. The innovation point of this paper is its new research perspective.

2. The overview of SuperMap's financing situation

2.1 Enterprise profile

SuperMap Software Co., Ltd. was founded in 2001 and is a leading provider of Geographic Information System (GIS) and spatial information technology solutions in China. SuperMap Software focuses on the research and development of GIS software, providing solutions for government departments, enterprises, and individuals in areas such as digital city construction, geospatial big data analysis, and smart transportation. Its products, including SuperMap GIS and iDesktop, are widely used in urban planning, resource and environmental management, public safety, and other fields. In 2022, SuperMap's revenue reached 1.8 billion RMB, with over 4,000 employees. Its main business areas include: basic GIS software, digital application systems, digital enterprise application systems, and special business segments. Additionally, SuperMap is continuously building an ecosystem of partners, leveraging more than 3,000 ecosystem partners to provide comprehensive information support to companies across dozens of industries[1].

2.2 SuperMap's main financing requirements.

2.2.1 Debt financing requirements

Debt financing refers to the process by which companies or individuals raise funds through issuing debt securities (such as bonds). In this scenario, investors purchase bonds and provide capital to the issuer. In return, the issuer agrees to pay interest at an agreed rate and repay the principal when the bond matures. This form of financing allows issuers to quickly obtain funds, while investors profit from the interest they earn. Debt financing typically helps businesses expand their operations, invest in projects, or meet urgent funding needs. As shown in the table below, it is evident that SuperMap Software has had relatively low short-term and long-term borrowings over the past five years. Short-term borrowings increased from 0.07 billion yuan in 2018 to 0.12 billion yuan in 2022, while long-term borrowings decreased from 0.06 billion yuan in 2018 to 0.02 billion yuan in 2022. This indicates that SuperMap Software currently has a lower reliance on debt financing.

Table 1. Credit financing situation of SuperMap software

Expiry date	Short-term borrowings (in billions of yuan)	Long-term borrowing (100 million yuan)
In 2018	point zero seven	point zero six
2019	point zero seven	point zero six
2020	point zero seven	point zero three
In 2021	point zero six	point zero one
In 2022	point one two	point zero two

Data source: SuperMap Software financial statements

2.2.2 Equity financing situation

Equity financing refers to the method by which companies raise funds through issuing stocks or other equity instruments. This type of financing allows investors to become shareholders in the company, enabling them to share in the company's profits and have certain voting rights in corporate governance. This distinguishes equity financing from debt financing, which involves raising funds through loans or bond issuance. As shown in the table below, SuperMap Software's equity financing situation over the past five years is as follows: from capital reserves, it increased from 830 million yuan in 2018 to 1.615 billion yuan in 2022, doubling; from surplus reserves, it rose from 48 million yuan in 2018 to 91 million yuan in 2022, showing a slow upward trend overall; from undistributed profits, it fluctuated over the past five years, increasing from 612 million yuan in 2018 to 993 million yuan in 2021, then declining to 618 million yuan in 2022. Overall, SuperMap Software's current equity financing mainly relies on capital reserves. Although surplus reserves have shown an increasing trend in recent years, the total amount remains small, while undistributed profits have remained relatively stable.

Table 2. Equity financing of supergraph software

Expiry date	Capital reserves (100 million yuan)	Surplus reserve (in billions of yuan)	Undistributed profits (100 million yuan)
2018	eight point three zero	point four eight	six point one two
2019	eight point three seven	point five three	seven point nine two
2020	eight point eight eight	point six seven	seven point four six
In 2021	sixteen point one four	point eight five	nine point nine three
In 2022	sixteen point one five	point nine one	six point one eight

Data source: SuperMap Software financial statements

3. The Analysis of the reasons for the financing risks of SuperMap software

3.1 The ratio of long-term and short-term bank borrowing is unbalanced

Through the data analysis of Table 1, it can be revealed that in the debt financing structure, long-term bank borrowing does not constitute a component part of corporate debt financing. Data show that in 2020 and 2021, enterprises raised short-term loans of RMB 45 million and RMB 10 million respectively through pledge; by 2022, the guaranteed loan amount was further increased to RMB 9 million, while long-term borrowing resources are obviously not fully utilized, which highlights the deficiencies in the diversification of financing channels.

3.2 Large gap in financing funds

According to annual report data, SuperMap Software's accounts receivable have been on the rise over the past five years, increasing from 530 million yuan in 2018 to 670 million yuan in 2022. At the same time, the turnover rate of accounts receivable has shown a downward trend, decreasing from 3.27 in 2018 to 2.21 in 2022. Due to low net cash inflows, the company's business scale continues to expand, leading to a higher debt-to-asset ratio. Consequently, the demand for working capital is increasing, and SuperMap Software not only needs to meet the growing working capital requirements but also needs to implement cash dividends, repay maturing debts, and fund future three-year investment plans and capital expenditures, resulting in a significant funding gap[2].

4. Financial risks control solutions of SuperMap software

4.1 Maintain the relationship between banks and enterprises to obtain long-term loans

Through the analysis of Supergraph Software Technology's credit business, it was found that due to information asymmetry between banks and companies, Supergraph Software Technology has a low credit rating. To maintain a good

relationship between banks and enterprises, first of all, SuperMap Software Technology Co., Ltd. should try its best to pay off all the money borrowed from banks on time, even if it is a little tight at hand, it should not affect the image of the company because of the small profit at hand.

4.2 Alleviate cash flow pressures

Only by ensuring the company's operating income and net income, it guarantees sufficient working capital to cope with various issues. According to financial reports, SuperMap Software saw a noticeable decline in order volumes in 2019 and 2020 due to external market conditions and financing environment. Additionally, the pandemic caused delays in project start times, extending construction periods and increasing costs. When the external environment cannot be reversed, the company must face this pressure and seek opportunities for new contracts to boost operating income. At the same time, consider selling projects with low profit margins and long payment cycles to liquidate them quickly, thereby alleviating the current shortage of liquidity capital and improving capital utilization efficiency. This will help control expenses during different periods, reduce financing risks, and enhance refinancing capabilities. However, companies should also be cautious not to blindly sign poor-quality projects just to improve performance, as this could have greater negative impacts on the company.

5. Conclusion

Compared to traditional enterprises, high-tech companies in our country have higher technical requirements, faster technological progress, and higher costs for technology development. Additionally, the uncertainty of R&D outcomes often leads many investors to be cautious about investing in high-tech sectors. In terms of the duration of financing, all financing is resolved in the current period, which does not provide experience for companies that continue to seek financing in the future. Research on risk control in financing is insufficient, limited to financial indicators alone. Further research could be conducted on management capabilities and historical data. Moreover, focusing solely on a specific industry can only offer some reference for companies within that industry. Due to the varying actual situations of each company, it is difficult to establish a unified standard for financing decisions and methods. Therefore, this should only serve as a reference, and more in-depth investigations are needed.

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