

Review on Financial Risk Early Warning of NEEQ Enterprises in China

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Abstract: The New OTC Market is an over-the-counter market for the financing of China's growing and innovative small and medium-sized enterprises. In recent years, the Chinese government has also put forward higher requirements for the financial risk control of NEEQ enterprises. In view of the above situation, this paper summarizes the research on the financial risks of NEEQ enterprises. The following conclusions are drawn: (1) the research focusing on the financial risk of NEEQ enterprises is mostly empirical qualitative research; (2) The research on quantitative early warning of NEEQ enterprises financial risk is not in-depth.

Keywords: NEEQ enterprises, New OTC Market, Financial risk early warning, Research overview.

1. Introduction

As the economic bodies with the largest number and underbalanced development in China, small and medium-sized enterprises are one of the main bodies of the market economy in China, which raises the employment rate[1]. However, different from listed companies and other large enterprises, the number of small and medium-sized enterprises, financial accounting is not standard and other characteristics are the primary factors restricting their development[2]. To that end, the Chinese government approved the establishment of a third National stock Exchange, the National Equities Exchange and Quotations, in 2012. The low listing threshold of the New OTC Market can help enterprises to list and trade efficiently, so it is favored by many small and medium-sized enterprises[3]. Statistics from the National Bureau of Statistics show that since the New OTC Market expanded in 2013, the number of listed companies has surged, with more than 10,000 financing, providing support to an increasing number of enterprises.

The Enterprises listed and traded in the New OTC Market are called NEEQ Enterprises. They are one of the main bodies of our country's market economy[4]. But at the same time, it is worth noting that the low entry threshold of the New OTC Market on the one hand attracts a large number of enterprises to be listed, but also causes the status quo of uneven development of enterprises. In addition, the complex and changeable external market environment also intensifies the business risk of enterprises. In addition, the epidemic has caused a significant decline in enterprise output and investment, which is more obvious for the NEEQ enterprises with poor anti-risk ability

1.1. Research background

As a platform for financing transactions of small and medium-sized enterprises, the New OTC Market plays an incubator role in the process of breeding high-quality enterprises to go public. However, it is worth noting that the low entry threshold and loose listing mechanism of the New OTC Market also lead to the influx of a large number of high-risk enterprises, resulting in increased risk of financing transactions in the New OTC Market. Many research data also

show that with the rapid expansion of the New OTC Market, enterprises exposed to financial risks emerge in endlessly.

In addition, the impact of the complex and changeable economic environment on the NEEQ enterprises cannot be ignored. In recent years, especially under the influence of the novel coronavirus epidemic, the flow of domestic production factors such as labor and assets has slowed down, seriously affecting the normal operation of enterprises. The epidemic has led to a significant decline in enterprise output and investment, and this negative impact is more obvious for the NEEQ enterprises with poor anti-risk ability. According to official statistics, nine companies listed on the New OTC Market were marked as financial risks in 2015, while the number has increased to 145 in 2019, with the proportion of risky enterprises also rising from 0.18 percent to 1.62 percent from 2015 to 2019. Since 2015, more and more domestic scholars have focused on the study of financial risk of NEEQ enterprises.

Specifically, Chinese scholars' research on the NEEQ enterprises focuses on the market development stage, innovation and financing efficiency of the New OTC Market. For example, He Muyuan et al [4] studied the New OTC Market from the perspective of the development, present situation and problems of the market, emphasized the importance of the market in our multi-level capital market, and put forward countermeasures and suggestions to the existing problems of the market. Zhang Xindong et al compared the differences and similarities between GEM and NEEQ enterprises in the field of innovation investment through disposal effect and panel regression model[5]. Liu Rongmao et al. took the low financing efficiency of NEEQ enterprises into account, and summarized the differences and causes of the efficiency of such enterprises before and after financing [6].

1.2. Research significance

The stability of market entities is related to the healthy and stable development of the market. As one of the main participants in the New OTC Market, venture enterprises on the one hand squeeze the financing opportunities of high-quality enterprises, but also affect the stable development of the market. At the same time, the financial risks exposed by

more and more enterprises not only greatly reduce the investment enthusiasm of the market, but also bring great control pressure to the regulatory authorities, hindering the sustainable and healthy development of the market. The New OTC Market is at an important stage of comprehensively deepening reform, and the goal of this stage is to continue to improve the market's attraction, radiation and coverage. In this context, by establishing and improving a complete financial risk early warning system, the potential financial risks of enterprises can be effectively identified and controlled, so as to achieve the goal of improving the quality and stability of the New OTC Market.

Due to the impact of COVID-19, the flow of domestic production factors such as labor and assets has slowed down, seriously affecting the normal operation of enterprises. By analyzing the business data of small and medium-sized enterprises, Wang Zhengwei et al [7]. found that the revenue and activity of small and medium-sized enterprises decreased significantly during the epidemic period compared with that in 2019. According to the official statistics of the New OTC market, in 2015, 9 listed enterprises on the New Third Board were marked as financial risks, while in 2019, the number has increased to 145. From 2015 to 2019, the proportion of venture enterprises also increased from 0.18% to 1.62% [8]. The number of financial risk enterprises on the New Third Board continues to increase, which intensifies the investment risks of investors, threatens the interests of many stakeholders [9], and directly affects the healthy development of the New Third Board market and even the national economy. Effective research on financial risk prediction of New Third Board enterprises can provide information support and decision-making reference for stakeholders of New Third Board enterprises, thus promoting the long-term and stable development of the New Third Board market. To sum up, it is urgent to discover and avoid financial risks of New Third Board enterprises in time and strengthen risk early warning. At the same time, we should guard against risks brought by market fluctuations.

However, compared with the main board market, the New OTC Market developed later, and its lower market entry threshold also makes the listed enterprises more unstable. At the same time, domestic research focusing on the financial risk of NEEQ enterprises is few, it is difficult to provide risk early warning guidance for enterprises and competent authorities in the actual market environment. Therefore, it is of great significance to deeply analyze and summarize the research status of financial risk of NEEQ enterprises.

2. Literature Review

2.1. Summary of the development status of the New OTC Market

The New Third Board market, as a platform for financing transactions of Chinese small and medium-sized enterprises, plays an incubator role in the process of breeding high-quality enterprises to go public[10]. However, it is worth noting that the low entry threshold and loose listing mechanism of the New Third Board market also lead to the influx of a large number of high-risk enterprises, resulting in increased risk of financing transactions in the New Third Board market. Many research data also show that with the rapid expansion of the New Third Board market, enterprises exposed to financial risks emerge in endlessly.

In addition, the impact of the complex and changeable

economic environment on the New Third Board enterprises cannot be ignored. In recent years, especially under the influence of the novel coronavirus epidemic, the flow of domestic production factors such as labor and assets has slowed down, seriously affecting the normal operation of enterprises. The epidemic has led to a significant decline in enterprise output and investment, and this negative impact is more obvious for the New Third Board enterprises with poor anti-risk ability. According to official statistics, nine companies listed on the New Third Board were marked as financial risks in 2015, while the number has increased to 145 in 2019, with the proportion of risky enterprises also rising from 0.18 percent to 1.62 percent from 2015 to 2019. Since 2015, more and more scholars in China have focused on the study of financial risk of enterprises on the New Third Board.

2.2. Review of financial risk research on the NEEQ enterprises

In order to further reduce the risks of enterprises on the New OTC Market and improve the business environment, the NEEQ system promulgated a new reform policy in 2018, including the rules of stock transfer and information disclosure of enterprises. Since then, the New OTC Market has entered the stage of quality improvement. Motivated by policies, more and more domestic researchers focus on the financial risk study of NEEQ enterprises. At present, mainly from the policy system control and enterprise internal risk two aspects of research.

In terms of the New OTC Market policy and institutional control, many Chinese scholars have put forward constructive suggestions. Zheng Jianming et al. studied the trading liquidity of the New OTC Market from the perspective of liquidity[11]. By analyzing the changes of the stock liquidity of the NEEQ enterprises before and after they enter the innovation layer, Zhao Chongbo et al believe that the hierarchical and differentiated regulatory system should be further optimized[12].

In terms of risk assessment of enterprises on the New OTC Market, Zhu Zongyuan et al. assessed enterprise risks based on Lasso-logistic model, found that enterprise risks were generally high, and put forward suggestions such as speeding up the integration of information platforms and strengthening enterprise supervision[13]. GUI Jiawei et al[14] evaluated the financial risks of enterprises by calculating financing efficiency from the perspective of regions and industry categories, and found that not all financial risks were related to financing efficiency or financial condition, and suggested strict control of potential financial risks. Tang Yifu[15] found that the financial risks of the New OTC Market agricultural loan companies are mostly caused by internal factors, suggesting that such enterprises further standardize the organization of internal management and strengthen the ability of risk control. Liang Weisen et al. built a Logistic model based on credit survey data to evaluate the credit default risk of agriculture, forestry, husbandry and fishery enterprises on the New Three Board[16]. The results showed that asset-liability ratio and short-term debt paying ability were two important indicators for judging the default risk of such enterprises.

Compared with the financial risk research of Chinese listed companies, domestic research on NEEQ enterprises this unique object needs further deepening. On the one hand, the late start of the New OTC Market leads to its immature market, and there are few domestic researches focusing on this aspect.

Most of the research objects of enterprise financial risk early warning are listed companies, while quantitative early warning studies focusing on NEEQ enterprises are few. In addition, the existing research on the theoretical foundation of early warning model is relatively weak, and the analysis of the factors and mechanism of financial crisis is insufficient.

In view of the unique field of NEEQ enterprises, there are also many difficulties in the study of financial risk early warning. First of all, the late development of the New OTC Market leads to immature management system, such as the imperfect financial information disclosure system and other practical problems increase the difficulty of financial risk early warning research; In addition, the proportion of risk enterprises and normal enterprises is seriously unbalanced, which is another difficult problem in early warning research. Finally, the current situation of poor market liquidity and low turnover rate increases the difficulty of information collection, and the early warning method of financial risk of listed enterprises is difficult to achieve the expected effect in the early warning of financial risk of enterprises on the New OTC Market. Therefore, mining multidimensional information of NEEQ enterprises is the key to improve the financial risk warning effect.

2.3. Review of financial risk evaluation indicators

Enterprise financial risk early warning related indicators can be divided into financial indicators and non-financial indicators. Among them, the financial index is used to reflect the enterprise's financial performance and solvency. In view of this, some studies have focused on the impact of financial indicators on the risk assessment of firms. Hosaka's study found that firms' total asset turnover, liquidity ratio and operating margin are effective default warning indicators.

However, small and medium-sized enterprises generally exist financial data disclosure is not standard, incomplete and other problems, these problems increase the difficulty of risk prediction. Therefore, some scholars focus on the role of non-financial indicators in enterprise risk early warning. Studies have proved that non-financial indicators of enterprises can not only reflect the operating status of enterprises, but also predict the future development of enterprises. Another study also proved that adding non-financial indicators to the early warning model improved its predictive performance. In this regard, many researches extend their horizons to non-financial information of enterprises to assess their financial risks. Park et al[17] proved through research that the change of major shareholders' equity is an important indicator affecting corporate financial risk. Helbing[18] explores and finds that high level of corporate governance or high transaction volume can reduce the probability of enterprises falling into financial risks. Wang et al[19] extracted company text information into non-financial indicators and integrated it with traditional financial indicators to give early warning of financial risks of listed companies. The inclusion of indicators such as Li and the composition of the board of directors in the risk warning model significantly improves its discriminant ability[20].

To sum up, it is found by summarizing domestic and foreign studies on corporate financial risk that early corporate financial risk evaluation indicators are mostly composed of single dimension financial indicators. Although studies considering financial indicators and non-financial indicators have emerged in recent years, researches on the NEEQ

enterprises still focus on qualitative studies such as policy, institutional control and so on. In addition, the lack of mature management and information disclosure mechanism of NEEQ enterprises makes it difficult to obtain information, which poses a great challenge for quantitative research on corporate financial risks.

3. Summary

According to the research findings in Section 2.2 and 2.3, the uniqueness of New Third Board enterprises leads to many difficulties in the study of financial risk early warning: (1) the late development of the New OTC Market leads to immature management system, such as the imperfect financial information disclosure system and other practical problems increase the difficulty of financial risk early warning research; (2) the proportion of risk enterprises and normal enterprises is seriously unbalanced, which is another difficult problem in early warning research. (3), the current situation of poor market liquidity and low turnover rate increases the difficulty of information collection, and the early warning method of financial risk of listed enterprises is difficult to achieve the expected effect in the early warning of financial risk of enterprises on the New OTC Market. Therefore, mining multidimensional information of NEEQ enterprises is the key to improve the financial risk warning effect.

In the aspect of index research, it is found by summarizing domestic and foreign studies on corporate financial risk that early corporate financial risk evaluation indicators are mostly composed of single dimension financial indicators. Although studies considering financial indicators and non-financial indicators have emerged in recent years, researches on the NEEQ enterprises still focus on qualitative studies such as policy, institutional control and so on. In addition, the lack of mature management and information disclosure mechanism of NEEQ enterprises makes it difficult to obtain information, which poses a great challenge for quantitative research on corporate financial risks.

Throughout the whole text, this paper summarizes the research on the financial risks of NEEQ enterprises. Compared with the financial risk research of Chinese listed companies, domestic research on the unique object of NEEQ enterprises needs further in-depth. On the one hand, the late start of the New OTC Market leads to its immature market, and there are few domestic researches focusing on this aspect. Most of the research objects of enterprise financial risk early warning are listed companies, while quantitative early warning studies focusing on NEEQ enterprises are few. In addition, the existing research on the theoretical foundation of early warning model is relatively weak, and the analysis of the factors and mechanism of financial crisis is insufficient. The following conclusions are drawn: (1) the research focusing on the financial risk of NEEQ enterprises is mostly empirical qualitative research; (2) The research on quantitative early warning of NEEQ enterprises financial risk is not in-depth.

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