A Study of China's Credit Rating and Financial Bond Cost

Xinping Guo

Monash University, Australia

2482516799@qq.com

Abstract. The article incorporates the nature of ownership variables into the framework of the relationship between credit ratings and bond financing costs, based on the theory of information asymmetry. It begins with a definition of credit ratings and an overview of the Chinese bond and corporate bond markets. The article further introduces the economic theory of information asymmetry and emphasizes the impact of credit ratings on bond financing costs through the assumptions outlined in the discussed research. Subsequently, it highlights the research findings, provides policy recommendations, discusses the limitations of the study, and offers suggestions for future research.

Keywords: China bond market, corporate bonds, credit risk, information asymmetry

1 Introduction

In recent years, China's bond market has developed rapidly, especially corporate bonds have expanded the direct financing channels for enterprises. However, this has been accompanied by a steep increase in credit risk, frequent bond defaults, increased financing costs and greater difficulty in raising capital, all of which have harmed the interests of investors and issuing companies and made the bond market unfair. This is related to asymmetric information, adverse selection and moral hazard in the bond market. In this paper, we use theoretical and empirical analysis to investigate the impact of credit ratings and reputation mechanisms on bond financing costs from the perspective of information asymmetry. Credit rating and auditing play an important role in information disclosure. By studying the relationship between credit ratings and bond financing costs, the credibility of the credit rating system in the Chinese market is discussed, providing a theoretical basis for further improvement of the credit rating mechanism Previously, scholars have studied the relationship between credit ratings and bond financing costs from the perspectives of guaranteed mechanisms, surplus management and internal control of companies, etc. This paper enriches the literature research related to credit ratings and bond financing costs by putting the nature of property rights factors into the model of the relationship between the two influences[1].

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2 Overview of The Bond and Corporate Bond Market in China

Currently, China's bond market is in a stage of vigorous development, ranking second in the world in terms of market size. According to the "2020 Statistical Analysis Report on the Catastrophic Bond Market" published by the China Bond Exchange, the total issuance of bonds in the Chinese bond market in 2020 was 37.5 trillion yuan. In 2010, the total issuance of bonds in the Chinese bond market was 37.75 trillion yuan, with a year-on-year growth of 3.96%. By the end of 2020, the total amount of custody in the bond market reached 10.32 trillion yuan, an increase of 1.6 trillion yuan or 19.83% compared to the previous year. Overall, the characteristics of the Chinese bond market are continuous growth in bond issuance, steady growth in custody volume, expansion of trade settlement volume, and continuous attention to credit risk.

At present, the macro-policy environment of China's bond market is relatively optimistic, with the government relaxing restrictions and actively promoting reforms in the credit bond registration system, improving bond default handling mechanisms, and unifying the credit bond information disclosure system. Therefore, in recent years, there has been an acceleration of product innovation in the bond market, with active innovation of bond types such as financial bonds and corporate bonds. At the same time, the opening-up of the bond market is also being comprehensively promoted, with optimization of policies for foreign institutions and increasing participation in the international bond market, while domestic and foreign institutions maintain communication and cooperation.

The second phase, from 2015 to the present, was a period of rapid development, with a cooling-off of the bond market in 2017. Specifically, in the corporate bond market, there were specific reasons for the decline, namely, the restricted financing channels for real estate enterprises, leading to a significant decrease in the issuance scale of corporate bonds in the real estate industry, resulting in an overall weakening trend in 2017 driven by enterprises[2].

2.1 Information Asymmetry Theory

The theory of information asymmetry was developed by the American economists Joseph Stiglitz, George Akerlof and Michael Spence. They argued that in a market economy, different players have different knowledge of relevant information, and that those who have sufficient information are often in a more favorable position, while those who have little information are in a less favorable position.

Information asymmetry can lead to adverse selection and moral hazard. In the corporate bond market that is the focus of this article, issuers have detailed knowledge of their own financial and operational reality and are well-informed, but investors, as outsiders to the company, often do not have a full understanding of the issuer and the financial instruments it issues, and may even be misinformed, making them poorly informed. These poorly equipped issuers are prone to moral hazard and are likely to default on the bonds they issue. Therefore, from a macro perspective, it is important and

necessary to reduce information asymmetry in order to maintain the healthy development of financial markets.

From a micro perspective, when a company wants to use the capital market to raise capital by issuing corporate bonds, it must also find ways to reduce the level of information asymmetry and attract as many investors as possible to buy the bonds it issues to ensure the successful completion of the debt financing round. In this process, the company can communicate its information to investors through financial disclosure, social responsibility disclosure and the involvement of reputable auditors and law firms in the bond issuance process[3].

2.2 The Impact of Credit Ratings on The Cost of Bond Financing

According to information asymmetry theory, there is a serious information asymmetry problem between bond investors and bond issuers, with the latter having far more information of all kinds than the former. If the bond issuer is a listed company, the information asymmetry problem can be reduced to a certain extent as such companies are required to disclose their financial information on a mandatory basis. If the bond issuer is an unlisted company, the core financial information of such companies is only known internally by the company's management, and external investors do not have access to this valid information in the market, in which case the information asymmetry between the investor and the issuer becomes more serious. The existence of information asymmetry is detrimental to both the issuer and the investor. For the investor, it increases the risk of investing their capital, and because of the adverse selection problem, the investor will demand higher risk compensation, which means higher financing costs for the bond issuer. Therefore, both parties have an incentive to take the initiative to address information asymmetries, for example, investors do their best to gather information that is publicly available in the bond issuer's market, but according to transaction cost theory, a third-party service provider can do this more efficiently and at a lower cost than the opportunity cost of gathering information by the investor. At the same time, according to signaling theory, bond issuers will reduce this information asymmetry by actively disclosing more information to the market that signals the value of the company in order to reduce the cost of bond financing.

The existence of information asymmetry and transaction costs explains the economic reasons for the emergence of third-party credit rating agencies. As professional third-party service providers, credit rating agencies also have a huge advantage over investors in that they have more professional and comprehensive expertise than investors, which helps to make a reasonable assessment of the credit risk of a debt issuing company. Rating reports issued by third party rating agencies can therefore effectively reduce information asymmetry in the market and can be used as a basis for investors to judge various risk profiles of bonds.

Ziebar and Reiter (1992) argue that credit ratings can convey operational and financial information about a company to the capital market, which investors use to judge investment risks and make investment choices. Shen and Liao (2004) also argue that credit rating agencies can provide the market and investors with incremental infor-

mation about bond-issuing companies and bonds[4], and that positive incremental information reduces the cost of bond financing; and that this incremental information varies with the degree of information asymmetry between investors and developmentalism. He, Ping and Jin, Meng (2010) regress the impact of credit ratings and other factors on the cost of issuing bonds using a "true interest cost" model and find that the credit rating system can effectively provide investors with information about corporate credit risk, thus reducing information asymmetry in the market[5]; therefore, positive credit ratings reduce the cost of corporate bond financing, while negative credit ratings reduce the cost of corporate bond financing. As a result, a positive credit rating reduces the cost of corporate bond financing, while a negative credit rating increases this cost, with a significant negative correlation between the two.

3 Research outcomes

This paper groups the sample into state-owned listed companies and non-state-owned listed companies according to the nature of their property rights respectively, constructs multiple linear regression models, and conducts descriptive statistical analysis, correlation analysis as well as regression analysis, and finally draws the following conclusions:

First, there is a significant negative relationship between the level of accounting soundness and the cost of corporate bond financing: the level of accounting soundness can alleviate the problem of information asymmetry between bond-issuing companies and bond investors, and bond-issuing companies can reduce the cost of bond financing by improving their own level of accounting soundness.

Secondly, compared to the period of monetary policy easing, when there is a period of monetary policy tightening, the improvement of accounting robustness has a more significant effect on the reduction of corporate bond financing costs: during the period of monetary policy tightening, companies can improve their accounting robustness to identify risks and improve their balance sheets in a timely manner, and at the same time reduce the degree of information asymmetry and avoid the emergence of adverse selection problems, so as to gain the trust of bond investors This will enable the company to reduce the cost of financing its bonds[6].

Thirdly, the nature of ownership affects the role of accounting robustness in reducing the cost of bond financing, with non-state listed companies having a higher level of accounting robustness than state listed companies in reducing the cost of bond financing. Compared with the period of loose monetary policy, in the period of tight monetary policy, the increase in the level of accounting robustness of non-state listed companies can significantly reduce the cost of corporate bond financing, but this effect is not significant in state-listed companies. The nature of property rights is an important factor influencing the financing behaviour of listed companies in China due to the specificity of our institutional background. State-owned listed companies, protected by natural barriers, can gain the favour of bond investors and obtain lower financing costs, which makes them ignore the important role of accounting soundness in the operation process, and the incentive to improve the level of soundness is much lower than that of non-

state-owned listed companies which are subject to credit discrimination, therefore, the effect of improving the level of accounting soundness of state-owned listed companies on the reduction of bond financing costs is not obvious.

4 Policy Recommendations

From the analysis of the above findings, it is clear that the credit rating reports issued by China's credit ratings have strong credibility in the market, which can effectively alleviate the information asymmetry problem and significantly reduce the cost of bond financing. However, the nature of property rights has weakened this impact effect. Therefore, in response to the above findings, the following policy recommendations are made.

First, credible credit rating reports can reduce the information asymmetry problem in the capital market and effectively explain the cost of bond financing. Therefore, the scale of the bond market should be continuously expanded to alleviate the problem of difficult and expensive financing for SMEs in China through a bond market with a higher degree of marketisation. Based on this, government departments should simplify bond issuance procedures and relax the entry criteria for bond issuance to meet the financing needs of different types of enterprises, especially SMEs.

Second, the bond market should continue to promote market-oriented reforms. State-owned enterprises are able to obtain funds at a lower cost in the bond market, but their profitability is significantly lower than that of private enterprises, which undoubtedly distorts the market-based pricing mechanism and reduces the efficiency of resource allocation and capital use[7].

Third, with the bond market as the carrier, the credit rating market should also be continuously enriched and improved. Impartial third-party rating reports can effectively alleviate information asymmetry and reduce financing costs. Therefore, the regulator should, on the one hand, increase the number of credit rating agencies and promote reasonable competition among them to enrich the assessment of bonds by different rating agencies, so as to provide more reliable investment references for investors. On the other hand, the issuance fee model of credit rating reports should be improved, in which both credit rating agencies and debt-issuing enterprises have a strong profit incentive to issue exaggerated or even false rating reports to the market. Finally, we should also focus on the quality of the rating agencies, continuously improve the regulatory system related to the rating market and give the rating agencies appropriate external pressure to continuously improve their own service level[8].

5 Conclusion

The main issue investigated in this paper is the relationship between credit ratings and bond financing costs. Based on the literature related to credit ratings and bond financing costs, the nature of property rights is included as a moderating variable in the analytical framework, and the final empirical study confirms that this moderating effect of the nature of property rights does exist in the bond market. The findings enrich the analysis

of issues related to credit ratings and bond financing costs, but there are also many shortcomings: firstly, in measuring bond financing costs, the paper uses the difference between the coupon rate at the time of bond issuance and the yield on government bonds of the same maturity in the same period, without taking into account the intermediary costs of relevant third-party service providers such as accounting firms and underwriters. Secondly, due to the lack of data in some samples and the lack of relevant theoretical basis, there is much room for improvement in the selection of control variables in this paper. It is hoped that in future academic research, the credit rating industry and the development of SL in the capital market, fairer standards of comparison can be developed between private and state-owned enterprises, so as to stimulate the enthusiasm and vitality of private enterprises to participate in the capital market and promote the joint development of a multi-ownership economy.

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