

A Research on the Causes of Credit Risk of Urban Construction Investment Bond in China

Shengbo Lin

School of Economics, Yunnan University, Kunming, 650500, China
Corresponding author: linshengbo@stu.ynu.edu.cn

Abstract:

Through the review of credit risk of local government debt in foreign countries, and the combing of relevant theoretical analysis and empirical research on the credit risk causes of municipal bonds with Chinese characteristics, this paper summarizes the theoretical results of the credit risk management practice of local government debt in developed countries, and bases on the unique local government debt problem in China, namely, urban investment debt. The causes of credit risk of China's municipal bonds are complex and diversified, and they have gathered the problems of information asymmetry of irregularities in municipal investment financing platform companies, the contradiction between hidden guarantees and the solvency of the actual responsible subjects, etc. It is urgent to carry out a new round of innovative researches on the basis of existing researches on the future development of municipal bonds under the background of the huge total amount of municipal bonds and the difficulty of solving the downward cycle of the economy.

Keywords: Urban Construction Investment Bond; Credit Risk; China's Bond Market.

1. Introduction

Since China's reform and opening up, the country's economy has developed rapidly and urbanization has accelerated considerably. As the construction of public products and services such as infrastructure is generally characterized by a long investment return cycle and low investment returns, there is less participation of social and private capital; according to the Budget Law of the People's Republic of China, the issuance of debt by local governments is also subject to a variety of restrictions, and thus local governments appear to be overwhelmed by the construction of the city. At this time, urban investment bonds came into being, which were issued by entrusted institutions, with local governments as guarantors, as a kind of "quasi-municipal bonds", able to avoid the restrictions of the budget law, and the funds raised were mainly used for infrastructure construction, and eventually became an important financing tool for local governments, which was gradually extended to the whole country [1]. After the financial crisis in 2008, China issued a four trillion yuan economic stimulus plan containing a series of documents to support local governments to form local financing platforms, making the national municipal bond issuance scale increased dramatically, and in the following more than a

decade have maintained a phenomenal growth rate, from the annual 391.4 billion yuan in 2009 to more than 12 trillion yuan in 2021. Due to limited local revenues and restricted financing channels, local governments rely more and more on urban investment bonds to promote the construction of urban infrastructure and various public services. Such fixed asset investment brought about by land appreciation and other impacts make the local government from the real estate market boom has gained considerable financial income, and the government's financial level directly affects the repayment ability of urban investment bonds. However, in recent years, the elimination of overcapacity, the real estate market cold and other new situations weakened the above chain, the bond market gradually lost confidence in urban investment bonds, many local government financing platforms issued urban investment bonds in trouble. The urban investment bonds that once brought about the prosperous development of urban economy have become a huge hidden danger to the local economy, which is a problem that cannot be avoided.

At present, the reality of credit risk of municipal investment bonds has been a number of risk-concentrated outbreaks of events, such as Yunnan Urban Investment Property Company Limited, as a typical local government financing platform company, by the Yunnan Provincial

State-owned Assets Supervision and Administration Commission actual control, for three consecutive years to divest the real estate assets in order to solve the problem of tens of billions of dollars of debt, in an attempt to reverse losses and reduce the level of credit risk from the ratings downgraded, or even delisted from the downfall of the market. Situations such as these urgently need to be studied to solve the actual problem of credit risk of municipal investment bonds. The research content has generated new hot and difficult issues, and there is an urgent need to make new research to keep up with the new situation. The study of credit risk of municipal investment bonds helps to verify whether the previous theories are still valid under the current situation, and has the theoretical value of promoting the updating of theories and adapting to the reality. Urban investment bonds are large in volume and heavy in the local debt chain, and once the risk breaks out, it may trigger regional systemic financial risks, generate crises that seriously jeopardize the stability of local economic development, and reduce the credibility of the government. Therefore, studying the credit risk of municipal investment bonds is crucial to the smooth and healthy operation of the local economy. In addition, the study of credit risk of urban investment bonds helps to improve the pricing ability of investors such as funds, insurance and banks on urban investment bonds, and helps to improve the evaluation ability of external credit assessment organizations on the risk factors of urban investment bonds. At the same time, the development of cities in different regions of China varies greatly, and the sources of repayment ability of urban investment bonds are different, but there are also some common points. By summarizing the research of various scholars on the causes of credit risk of municipal bonds through the literature review, it can help the studies to find unique pain points from different perspectives, adopt targeted recommendations, and find the commonality of the causes of municipal bonds across the country, so as to learn from each other and take effective policy measures to solve and prevent the risks.

The purpose of this research paper is to analyze foreign studies first through the literature review, and then analyze the situation in China, to find the relevant factors affecting the occurrence of credit risk of municipal investment bonds in the operation process of municipal investment platform enterprises. Analyze the issue, use and management of municipal investment bonds. Reflecting on the scientific rationality of the analysis of the factors affecting the risk of municipal investment bonds in previous studies, for interested researchers to serve as a reference for studying and researching from the aspects of issuance, investment, and management of municipal investment

bonds by the government, enterprises, and investors. It seeks to promote the progress of related research, promote the resolution of urban investment bond risk, help urban investment bond companies market-oriented transformation, and stabilize the local economy.

2. Foreign Studies of Urban Construction Investment Bond

2.1 The Theory of Foreign Local Government Municipal Bond Issuance

Foreign countries' bond credit risk causes of research is basically from the real local government issued bonds to carry out, and cannot be completely applied to China's municipal bonds on the issue of municipal bonds, municipal bonds is unique to China, the characteristics of the local government debt, relatively speaking, with hidden characteristics. However, a group of foreign scholars have analyzed the municipal bonds, which can be used as the basis and inspiration for China's research on municipal bonds. In the classic theory of fiscal federalism, Mr. and Mrs. Musgrave explained that a multi-level government financial system can better provide members of the society with perfect public goods and public services. In other words, it is necessary to form a mechanism of distribution and coordination of fiscal responsibilities among various levels of government to achieve effective distribution of resources, provision of public services and stable economic development. Fiscal decentralization is one of the important initiatives, implying the decentralization of fiscal powers, including the power of local governments to issue public debt, to the local government level, so that local governments can decide and manage some of their financial resources and expenditures on their own. This helps to better meet the needs of local residents and enhances the management efficiency and accountability of local governments [2]. Stigler, on the other hand, suggests that local governments have a better understanding of local residents and, compared to the central government, have an information advantage over the central government in terms of local residents' demand for public goods and services. By giving local governments a certain degree of financial autonomy, local governments can effectively utilize the information advantage and can improve the efficiency of local construction. In the process of local construction, the fiscal power of local governments can allow them to finance by borrowing [3]. These foreign studies mainly argue the feasibility of local government debt issuance, which can undoubtedly be used as the theoretical support for the Chinese local government as the main body, issuing debt to participate in infrastructure construc-

tion.

2.2 The Quality of Municipal Bonds

The likelihood that a municipal bond will incur credit risk and not be repaid is included in the description of the bond's quality. With regard to the factors affecting bond quality, Hempel defined "the probability of not suffering a loss due to bond default" as the credit quality of a bond. Based on the statistical base of his field research, he proposed that credit quality is a function of the debt of the issuing entity, the net revenues available for debt service, and its willingness to service the debt. By studying the quality of state and local debt in the United States after the experience of World War II, he empirically analyzes the important pattern: the volume of local government debt is negatively related to the credit quality of bonds. At the same time, he mentions that the purpose of state and local bond issuance may not be purely for the provision of public goods, such as bond issuance to obtain funds to provide subsidies to private developers or investors, which not only increases the amount of debt, but also reduces the willingness of the local government to repay the debt, and corruption significantly affects the willingness to repay the debt and the total amount of debt. Therefore, intuitively, under the influence of various mechanisms, the issuance of local government bonds tends to be highly negatively correlated with the credit quality of the bonds, which increases the credit risk [4].

2.3 Causes of Municipal Bond Risk

Zimmerman and others suggest that municipal bonds are affected by government macro policies and therefore have even greater credit risk compared to similar corporate bonds. It highlights that changes in tax policy may also affect the revenue structure of local governments, which in turn affects their debt servicing capacity. For example, tax cut policies may stimulate economic growth in the short term, but may reduce fiscal revenues in the long term, exacerbating the repayment pressure on municipal bonds [5]. Kidwell and Trzcinka argued that municipal bond issuance tends to have specific role limitations and is influenced by government macro policies [6]. Scholars' studies have found that municipal bond issuance regulations, restrictions on the use of funds, and local government debt management policies may affect the creditworthiness of municipal bonds. The central government's tight control of local government debt to reduce systemic financial risks may also trigger a short-term credit crunch, putting some municipal bond issuers under liquidity pressure. Although the impact of policy changes on municipal bond market interest rates during major fiscal crises, such as the one in New York City, is also short-term, these short-term

impacts still imply a temporary increase in credit risk for investors in municipal bonds [6].

3. China Studies of Urban Construction Investment Bond

3.1 The Origin of Municipal Bonds in China

The origin of China's municipal bonds starts from the issue of local finance, and the 1994 tax-sharing reform is the origin of the radical change in the means of financing local finance recognized by some Chinese scholars such as Hu, and also the origin of municipal bonds. However, scholars have different opinions about the impact of this reform in various aspects, which will not be discussed in this paper. The restriction on the issuance of public bonds by prefectural level municipalities in the 1995 Budget Law is another important reason for the emergence of municipal bonds, and the local governments have set up local financing platform companies to issue municipal bonds in order to achieve a similar effect as that of municipal bonds, which is an economic phenomenon of great Chinese characteristics [7].

3.2 Challenges and Solutions in Municipal Bond Expansion

Based on the knowledge that there is a negative correlation between the increase in the total amount of local debt and the quality of the corresponding municipal bonds, Chinese scholars have expressed considerable concern in the face of the high-speed expansion of the scale of municipal bonds mentioned in the previous article and explored the reasons for this high-speed expansion and the reasonable scale of municipal bonds. For example, Zhang studied the information asymmetry problem in the issuance process of municipal bonds from the perspective of information economics. It is proposed that the lack of supervision and standardized constraints on local government investment and financing platforms is an important reason for the rapid expansion of municipal investment bonds. Scholars are worried that the rapid development of urban investment debt will inevitably cause local governments to generate huge hidden debt, which will lead to the outbreak of debt crisis of local governments. It pointed out that this trend finally, the outbreak of credit risk of urban investment debt may bring huge systemic risk to each local social economy [8]. Combined with the characteristics of municipal investment bonds, scholars such as Li and Yan focus on how to reduce the credit risk caused by information asymmetry by strengthening the information disclosure and governance mechanism. Scholars recognize from the problem of information asymmetry, which

also involves the specific issue of corporate governance. Transparent information disclosure can enhance market confidence, reduce information asymmetry, and reduce the investor's lack of critical information due to the risk of miscalculation. However, in reality, some municipal investment enterprises have unsound information disclosure systems and non-transparent financial data, which may lead to investors' misjudgment of the true credit status of municipal investment bonds, thus increasing market volatility and credit risk. The lack of transparency of internal information due to the imperfect corporate governance structure of municipal investment bond issuing platforms may increase the information search cost of investors, which in turn may affect the accuracy of credit evaluation and the reasonableness of market pricing of the municipal investment bond issuing platform companies. Deficiencies in corporate governance may lead to problems such as poor decision-making, opaque financial information, and management moral hazard. When the classic principal-agent problem occurs and management pursues its own interests while ignoring creditors' rights and interests, it may lead to problems such as excessive leverage and high risk appetite, increasing the possibility of municipal investment bond defaults. In addition, these scholars argue that most municipal investment companies are mostly held by local governments, and that the equity structure and board composition of municipal investment enterprises are also important components of the governance structure. A reasonable equity structure can promote the long-term stable development of the enterprise, while the professionalism and independence of the board of directors directly affects the rationality of decision-making. When CICs rely excessively on local governments or have too many government representatives on their boards of directors, it may lead to over-administrative decision-making, ignoring the laws of the market and increasing credit risk. For example, some municipal investment enterprises are directly or indirectly controlled by local governments, which may make the corporate governance structure favor the short-term goals of local governments rather than long-term financial health, increasing the credit risk of municipal investment bonds. Information asymmetry is also reflected in the lack of understanding by outsiders of the projects to which urban investment bond funds are applied. The rigor and reasonableness of the project selection and investment decision-making process, and even the lack of standardized and effective internal and external supervision mechanisms for the later project implementation and management, the project's benefits and risks cannot be reasonably assessed, and the same strikes the confidence of the rating agencies and the bond market in

the municipal investment bonds, resulting in bond pricing problems [9]. Wen and Li have also studied the problem of information asymmetry of urban investment bonds as the "hidden debt" of local governments that is not clearly divided. In addition to affirming the necessity of municipal bonds, these scholars also believe that municipal bonds, which are issued by local government-controlled companies, need to be transitioned to a form of local public debt issuance recognized by the central government, so as to bring local government debt more into the formal financial regulatory system, and to overcome the problem of opacity of information on local government debt, which leads to the downgrading of credit ratings by rating agencies on municipal bond issuers and other problems [10].

3.3 The Contradiction Between Guarantee and Actual Repayment Capacity

Some scholars analyzed the implicit guarantee problem of municipal bonds, and based on the municipal bond issuance data and issuance of sampled years to conduct an empirical analysis and research, mainly comparing and analyzing the issuance interest rates of unsecured municipal bonds and municipal bonds with explicit third-party guarantees. From the results, scholars found and confirmed that there is no significant difference between the issuance rates of unsecured municipal bonds and those with explicit third-party guarantees. This reflects that in the bond market, market participants for all kinds of urban investment bonds is a general consensus that regardless of whether there is a guarantee, urban investment bonds are actually a local government behind the guarantee to increase credit, known as a "hidden guarantee" [10]. Zhong et al. believe that the local government's "implicit guarantee" is unspoken by the public, and the existence of the government's implicit guarantee expectations may lead to blind underestimation of the risks of urban investment platforms by investors, which makes the pricing of urban investment bonds deviate from the fundamentals, which leads to a reduction in the cost of urban investment platforms to issue debt, and contributes to the rapid expansion of the scale of local government implicit debt. The rapid expansion of the scale of local government hidden debt, bringing uncertainty and risk to the financial market [11]. In fact, the "implicit guarantee" in turn violates the Budget Law. Except as otherwise provided by law, local governments and their subordinate departments shall not provide guarantees in any form for the debts of any unit or individual. In addition to the relevant provisions of the Budget Law, there is also a striking problem of mutual guarantees among the various municipal bond companies. Scholars such as Zhang et al. have already

revealed the fact that urban investment bonds are currently being cleaned up by the central government. The introduction of the new Budget Law, “Document 43” and a series of subsequent deepening reform measures have greatly weakened the rigid payment mechanism originally enjoyed by municipal bonds. Although the purpose of the local hidden debt into the local government as the main body of the visible debt, while weakening the main body of the financial market on the city investment bond bonds behind the government’s implicit guarantee expectations, to promote the city investment platform financing companies to the market-oriented transformation, which is not good news for most of the city as a corporate investment platform. Local governments are not allowed to unlimited underwriting for the debt of urban investment platform, urban investment platform companies and urban investment bond purchasers need to face the possibility of urban investment bond debt default and even the bankruptcy of urban investment bond companies [12]. Liu, and Guo used the double-difference method to investigate the impact of exogenous policy shocks as the source of the decline in market expectations of implicit government guarantees on the liquidity of municipal investment bonds-which can be used to verify Zimmerman’s assertion [5, 13]. Liu and Guo find that the decline in the expectation of implicit government guarantees significantly triggers the phenomenon of liquidity deterioration of municipal bonds bonds, in which the increase in credit risk serves as a key messenger revealing the mechanism of action between government guarantees and bond liquidity deterioration [13]. Further, Liu and Guo’s study reveals that the policy change not only caused liquidity shock of municipal investment bonds in the primary market, but also spread to the secondary market like ripples, which greatly raised the credit spreads in the secondary market and the cost of borrowing for municipal investment bond companies; investors in the market would suffer a big shock in a short time, which triggered the concern and selling behavior, and would continue to cause the liquidity of municipal investment bonds to decline, creating a rising risk of default and a rising risk of default. level down, forming the linkage risk of rising default risk and deteriorating liquidity. Through this study, these scholars demonstrate the importance of gradually reducing the government’s implicit guarantee to the sound operation of the financial system, advocating that investors and the government should have an in-depth understanding of each other, eliminating the “superstition” of implicit guarantees among all the main players in the market; stabilizing the market’s expectations, through the government’s initiative to regulate the scale of the debt, the speed of the expansion of key indicators of credit risk

of the municipal bonds [1]. Stabilize market expectations and control the key indicators of credit risk of municipal investment bonds, such as the scale and expansion rate of debt by the government [13]. Xu and Wang studied the contradiction between the actual guarantee responsibility of municipal investment bonds and the main body of the guarantee responsibility believed by the market, and thought about how to reasonably solve this contradiction, and finally with Wen and other scholars on the same path, put forward the prospect that municipal investment bonds will eventually evolve into “formal municipal bonds” [10, 14].

4. Conclusion

The literature review of this paper introduces the current situation and problems faced by China’s municipal bonds, pointing out that China’s local government debt is currently facing new problems in the context of the global economic downturn and changes in China’s domestic policies related to municipal bonds. This paper argues that there is an urgent need for research on the new situation of current municipal investment debt, as well as a need to organize previous research. This paper summarizes the research of Chinese scholars on urban construction investment bonds of Chinese local governments in recent years, and also includes the useful research of foreign scholars on the issuance of municipal bonds by local governments. The classic foreign research results, from the multi-layer government finance system to the study of credit quality of local bonds and the strong influence of policies on local bonds, have been the basis of many later Chinese studies, which corroborate each other. Chinese scholars have paid attention to the history of economic reform with Chinese characteristics, explored the process of municipal bonds from flexible tools, to bloated crises since the reform of the tax sharing system, concentrated on the two aspects of the information asymmetry problem and the contradiction of the guarantee responsibility to analyze the reasons for the deterioration of the credit risk of the municipal bonds, and put forward the test from the perspective of the government. This paper reveals the complexity and multiplicity of the credit risk of municipal investment bonds. By summarizing and summarizing domestic and foreign studies, it expects to provide a clear review for future research on China’s local government debt problems, combs through the previous studies, and expects to provide a valuable reference for the government, enterprises, and investors in the issuance, investment, and management of municipal investment bonds, and to provide a valuable reference for the future direction of the research, and to promote theoretical innovations and empirical explora-

tions in the related fields, in order to realize the safe resolution of the risk of municipal investment bonds, promote the improvement of local finance, and adapt to the new challenges of the new era.

References

- [1] Li, J. (2022). Analysis of Risk Factors of Urban Investment Bonds Based on the Perspective of Urban Development, Institute of International Trade and Economic Cooperation, Ministry of Commerce.
- [2] Musgrave, R. A., & Musgrave, P. B. (1989). *Public finance in theory and practice* (5th ed.). McGraw-Hill Book Co.
- [3] Stigler, G. J. (1975). The Theory of Economic Regulation. In *The Citizen and the State: Essays on Regulation* (pp. 124–128). The University of Chicago Press.
- [4] Hempel, G. H. (1971). *Postwar Quality of State and Local Debt*, N.B.E.R. General Series No. 94. Columbia University Press.
- [5] Zimmerman, J. L. (1977). The Municipal Accounting Maze: An Analysis of Political Incentives. *Journal of Accounting Research*, 15, 107–144.
- [6] Kidwell, D. S., & Trzcinka, C. A. (1982). Municipal Bond Pricing and the New York City Fiscal Crisis. *The Journal of Finance*, 37(5), 1239–1246.
- [7] Hu, G. (2013). Research on Credit Risk of China's Urban Investment Bonds, *Southwestern University of Finance and Economics*.
- [8] Zhang, L. (2011). Research on the debt risk of local government investment and financing platforms in China. *Economy*, (04), 81–85.
- [9] Li, L., & Yan, T. (2014). Risk analysis and coping strategy of local financing platform. *Modern Economic Information*, (15).
- [10] Wen, L., & Li, T. (2019). Research on the clarification of the boundary of hidden debt and governance problems of local governments in China. *Journal of Central University of Finance and Economics*, (07), 18–26+114.
- [11] Zhong, N., Chen, S., Ma, H., et al. (2021). Evolution of debt risk of local financing platforms - Based on the measurement of "implicit guarantee" expectation. *China Industrial Economy*, (04), 5–23.
- [12] Zhang, M., Pan, Y., & Fan, Y. (2022). Tax reduction policy and local government debt—Evidence from VAT rate cut. *Economic Research*, 57(03), 118–135.
- [13] Liu, J., & Guo, L. (2024). Impact of implicit government guarantee on the liquidity of municipal bonds. *Journal of Shanghai University of Finance and Economics*, 26(02), 65–79.
- [14] Xu, G., & Wang, Y.-W. (2013). Bumps in the road, but the road goes on--an in-depth study of municipal bonds. *Financial Development Review*, (03), 70–97.