Rule of Law and Bond Credit Risk: A Perspective Based on Debt Structure

Wentao Peng

School of Economics, Jinan University, Guangzhou, China

Email: jnupengwt@126.com

Abstract. Building a good legal environment is of great significance to the high-quality development of China's bond market. This article uses quasi natural experiments on the establishment of bankruptcy courts in various regions of China and uses the difference in differences method to identify the impact of legal strengthening on bond credit risk under different debt structures of enterprises. Research has found that the establishment of bankruptcy courts can significantly reduce the secondary market spread of local corporate bonds, and in the case of increased corporate bank debt, the establishment of bankruptcy courts will significantly increase the credit spread of bonds. The research conclusion of this article indicates that the construction of the rule of law environment should be combined with the reasonable adjustment of the debt structure of the issuing enterprises themselves in order to better play the role of institutional construction and promote the high-quality development of China's finance.

Keywords: Rule of Law; Bond Market; Creditor Protection; Information Asymmetry; Debt Structure

1 Introduction

As one of the most important financial risks, the prevention and resolution of default risk in the bond market are related to the healthy development of the entire financial industry and the maintenance of the ability of financial services to serve the real economy. Since the ST Super Japanese Bond Incident in 2014, bond defaults have gradually become normalized, and default risk events in the bond market have occurred frequently, resulting in a sharp increase in the scale of defaults. The increasing number of bond default events has generated huge economic operating costs, and corporate debt defaults have caused significant losses to investors[1][2], which is not conducive to the healthy development of the bond market[10].

However, banks and bondholders are both creditors of the enterprise, but due to significant differences in information acquisition, bargaining power, and claim order between the two, the legal protection effect for the two may differ. Therefore, in the event of a debt default, banks are in a more advantageous position relative to bondholders. With these advantages, they can effectively protect their own interests, min-

W. Zang and C. Xia (eds.), *Proceedings of the 2025 3rd International Conference on Digital Economy and Management Science (CDEMS 2025)*, Advances in Economics, Business and Management Research 336,
https://doi.org/10.2991/978-94-6463-770-0_72

imize their losses, and potentially engage in actions that harm the interests of bondholders. And bondholders are usually dispersed and lack cohesion. When a company encounters debt repayment difficulties, the negotiation cost of debt restructuring through private negotiations is relatively high. This means that once a company defaults on its bonds, bondholders usually choose to resort to legal means to solve the problem, relying more on legal protection from creditors. Based on this, the advantage of banks over bondholders will be weakened due to the strengthening of the rule of law, and their behavior of encroaching on the interests of bondholders will also be hindered by the strengthening of the rule of law. Banks may choose to shrink credit terms or withdraw loans in advance, which will further exacerbate the credit risk of bonds.

2 Theoretical Analysis and Research Hypotheses

In terms of legal enforcement for creditor protection, Jappelli et al. (2005) found in their study of Italy that obtaining credit is also more difficult in regions with longer judgment times or a backlog of judgments [3]. Xiao Min's (2008) study distinguished the heterogeneous impact of the establishment and implementation of laws on the cost of equity capital of companies, and pointed out that the establishment of laws has a limited effect, while the implementation of laws has a significant effect [9]. Qian Xianhang and Cao Tingqiu (2015) found based on survey data from Shandong Province that in areas where laws are well enforced, banks will lower their review requirements and have fewer non-performing loans [4]. Wang Yongqin and Xue Xiaoyang (2022) found that the establishment of bankruptcy courts in China has improved the efficiency of bankruptcy trials, reduced the cost of corporate bond financing, and increased bond financing [6].

Theoretical research indicates that the structure of corporate debt can affect the credit risk of bonds. Borrowing from banks and issuing bonds for financing are the most important sources of debt for enterprises, and existing literature mainly explores the impact of bank loans on bond credit risk. Bank loans may affect the credit risk of bonds through two channels. One is the cross supervision channel of banks, which alleviates the problem of information asymmetry by supervising company management and performance, benefiting bondholders and reducing bond credit risk [7]. The second is the channel for conflicts of interest among creditors. Banks are more likely to obtain internal information about companies compared to bondholders, and bank loans are generally secured or guaranteed loans, which usually have a higher priority in claims [5]. In the case of fixed total debt, an increase in the proportion of bank financing will reduce the expected default recovery rate of bondholders and increase bond credit risk. Based on this, this paper proposes the following assumptions:

H1: The establishment of bankruptcy courts can reduce the credit spreads of bonds.

H2: The establishment of bankruptcy court for different creditors will aggravate the conflict of interest between creditors, thus increasing the spread of the secondary bond market.

3 Research Design

3.1 Data Sources and Sample Selection

This article selects corporate bonds, corporate bonds, and medium-term notes issued from 2007 to 2023 as research samples. The data used includes bond trading data and financial statement data of bond issuers. On this basis, this article screened the samples as follows: firstly, samples with credit spreads less than 0 were excluded; Secondly, exclude bonds issued by financial institutions and real estate companies; Thirdly, exclude urban investment bonds; Fourth, exclude debt with rights; Fifth, exclude bonds with interest rate types of "floating rate" and "progressive rate", and only retain bonds with "fixed rate" types. The data on the establishment of financial trial courts, collegiate panels, and bankruptcy courts in various regions was manually compiled by the author based on the websites of the Higher People's Court and intermediate people's courts at the local level. In order to eliminate the influence of extreme values, this article performed a 1% truncation process on all continuous variables.

3.2 Model Specification

This section examines the impact of strengthened rule of law on bond credit spreads. The specific model settings are as follows:

$$CS_{i,t} = \alpha_0 + \beta_1 Law_{i,t} + \beta_2 Controls_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad (1)$$

Among them, subscript i represents bonds, and t represents quarters. The dependent variable represents a measure of bond credit risk, namely bond credit spread. It is a dummy variable established by the bankruptcy court. If the city where the issuer of bond i in period t is located has already established a bankruptcy court, this variable is set to 1; otherwise, it is set to 0.

In order to further investigate the impact of strengthened rule of law on bond credit risk in the context of increased bank debt, this section adds an interaction term between the establishment of bankruptcy courts and debt structure based on model (1). The specific model settings are as follows:

$$CS_{i,t} = \alpha_0 + \beta_1 Bankdebt_{i,2018q4} * Law_{i,t} + \beta_2 Law_{i,t} + \beta_3 Controls_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad (2)$$

Among them, the proportion of a company's bank debt to total liabilities in the quarter before the establishment of the bankruptcy court (Q4 2018) represents the conflict between the bank and bondholders. The larger the loan amount, the more likely the bank is to encroach on the interests of bondholders [8].

4 Empirical Analysis

Table 1 shows the regression results of the impact of bankruptcy court establishment and issuer debt structure on bond credit spreads. The coefficient of the interaction term between bankruptcy court establishment variables and debt structure is significantly positive at the 5% level. The results of the fourth column show that after adding enterprise and bond characteristic variables, the coefficient of the interaction term is significantly positive at the 1% level, indicating that the heterogeneity of the protection effect of bankruptcy court establishment on different creditors exacerbates the conflict of interest between banks and bondholders, thereby increasing bond credit spreads. The bond spread of the experimental group increased by 40.3 basis points compared to the control group. The above results indicate that strengthening the rule of law can significantly reduce the interest spread in the secondary bond market. However, considering the issuer's debt structure, with an increase in the proportion of corporate bank debt, strengthening the rule of law will exacerbate conflicts of interest among different creditors, thereby increasing bond credit spreads.

Table 1. Basic regression results

	(1)	(2)	(3)	(4)
	CS	CS	CS	CS
Law	-0.0615*	-0.0846***	-0.1747***	-0.2193***
	(-1.92)	(-2.72)	(-2.92)	(-4.17)
Law*BankDebt			0.3377**	0.4026***
			(2.13)	(3.13)
Constant	1.8142***	4.1778***	1.7451***	4.1737***
	(216.60)	(13.35)	(196.27)	(12.89)
Observations	104,799	100,366	98,867	96,290
R-squared	0.749	0.740	0.738	0.736
Control Variable	NO	YES	NO	YES
Time FE	YES	YES	YES	YES
Individual FE	YES	YES	YES	YES

Note: The numbers in parentheses are t-statistics, * * *, * *, * * represent significance levels of 1%, 5%, and 10%, respectively.

5 Conclusions

The establishment of a bankruptcy court aims to improve the efficiency of bankruptcy trials, provide institutional guarantees for the smooth performance of debt contracts, and protect the interests of creditors. However, after considering the debt structure of the enterprise, the establishment of a bankruptcy court may lead to a higher risk of default on the enterprise's debt, resulting in the interests of bond investors not being truly protected. In view of this, this article systematically studies the impact of strengthening the rule of law on bond credit risk under different debt structures of enterprises, using the quasi natural experiment of establishing bankruptcy courts in China. Research has found that establishing bankruptcy courts can significantly reduce the secondary market spread of local corporate bonds, which is consistent with previous research findings. After considering the debt structure of the issuing entity, that is, in the case of an increase in corporate bank debt, the establishment of bankruptcy courts significantly increases the risk of bond default, manifested as a significant increase in bond credit spreads.

References

1. Beneish, M. D. & Eric Press. (1995). The Resolution of Technical Default. The Accounting Review, 70(2), 337–353.
2. Davydenko, S. A., Strebulaev, I. A., & Zhao, X. (2012). A Market-Based Study of the Cost of Default. The Review of Financial Studies, 25(10), 2959–2999.
3. Jadiyappa, N., & Shrivastav, S. (2022). Bankruptcy law, creditors' rights, and cash holdings: Evidence from a quasi-natural experiment in India. Finance Research Letters, 46, 102261.
4. Qian Xianhang, Cao Tingqiu Law, Credit, and Bank Loan Decision Making: Investigation Evidence from Shandong Province [J]. Financial Research, 2015 (05): 101-116.
5. Wang Hongjian, Wu Jinghua, Cao Yuqiang Creditor protection and corporate risk-taking: a quasi natural experiment based on the implementation of the Bankruptcy Law and the Property Law [J]. Financial Research, 2023 (02): 189-206.
6. Wang Yongqin, Xue Xiaoyang Rule of law construction and high-quality financial development: evidence from China's bond market [J]. Economic Research, 2022,57 (10): 173-190.
7. Wang, S., Wang, X., Wang, Y., & Zhang, X. (2021). How does the creditor conflict affect bond IPO underpricing? The Journal of Finance and Data Science, 7, 67–93.
8. Weston, J., & Yimfor, E. (2023). Bank loans and bond prices. Journal of Corporate Finance, 80, 102406.
9. Xiao, M. (2008). Legal establishment, legal implementation and the cost of equity capital. China Industrial Economics, (3), 40-48.
10. Yang Guochao, Jiang Anxian The 'protective shield' for bond investors or the 'domino' of debt defaults: an analysis of the cross default system for bonds. China Industrial Economics, 2022, (05): 140-158.