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Development of the corporate bond market in Vietnam: Policy recommendations

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ABSTRACT

This study examines the determinants of corporate bond market development in Vietnam and provides policy recommendations to improve market sustainability. Based on survey data from 176 market participants, the study evaluates five groups of factors: legal framework and market supervision, market infrastructure and pricing mechanisms, investor structure and financial intermediaries, issuance procedures and costs, and disclosure and transparency. Cronbach's alpha is used to test the reliability of the scales, while Confirmatory Factor Analysis (CFA) is applied to validate the measurement model. Subsequently, multiple linear regression is employed to test the proposed hypotheses. The findings indicate that market infrastructure and pricing mechanisms, together with investor structure and financial intermediaries, have positive and significant effects on corporate bond market development. Issuance procedures and costs have a marginally significant positive effect, while the legal framework and market supervision, and disclosure and transparency, do not show clear direct effects. The study suggests improving market infrastructure, developing institutional investors, reforming the issuance process, and strengthening the legal framework and disclosure requirements in the long term.

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1. Introduction

Within modern financial systems, the corporate bond market plays a crucial role in providing medium- and long-term funding for enterprises while reducing reliance on bank-based financing. Globally, corporate bond issuance has increased significantly over the past two decades, particularly in Asia. Over this period, the corporate bond market in Asia has grown substantially and now accounts for approximately 33% of global corporate debt (OECD, 2024). For emerging economies, the development of the corporate bond market not only reflects capital market maturity but is also closely linked to improving resource allocation efficiency, diversifying funding sources for enterprises, reducing concentration risks in bank-dependent systems, and enhancing resilience against financial shocks. A growing body of empirical literature suggests that a well-developed corporate bond market plays a vital role in supporting sustainable economic growth, especially in the context of global financial cycles and tightening bank credit conditions (Gu and Kowalewski, 2016; Smaoui et al., 2017).

Over the past decade, corporate bond markets in emerging economies have expanded rapidly, associated with financial liberalization, improvements in legal frameworks, and increased demand for long-term funding. However, research also indicates that this development often comes with structural risks, such as information asymmetry, limited risk assessment capacity, insufficient investor diversity, and weak secondary market liquidity (Ayala et al., 2017; Bessembinder and Maxwell, 2008). When global financial conditions change, or domestic policies adjust, these weaknesses may quickly surface, leading to volatility in corporate bond markets and spillover effects to the banking and financial sectors.

Vietnam represents a typical emerging economy undergoing capital market development, where the corporate bond market has increasingly been emphasized as a supplementary funding channel alongside bank credit. The development of this

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market has occurred alongside institutional reforms, legal improvements, and international financial integration. However, similar to other emerging markets, Vietnam's corporate bond market faces several challenges related to disclosure quality, credit risk assessment mechanisms, investor structure, and the effectiveness of secondary market operations. These issues raise important questions regarding the sustainability of market development and the balance between expansion and financial stability (Adusei and Adeleye, 2021; Li et al., 2023). Given these research gaps, this paper aims to evaluate the development of Vietnam's corporate bond market in recent years using a quantitative approach, placing Vietnam within the broader context of emerging economies and referencing international research findings.

The remainder of this paper is organized as follows. Section 2 reviews the theoretical background and empirical studies, and develops the research hypotheses. Section 3 presents the data and research methodology. Section 4 provides an overview of Vietnam's corporate bond market and discusses the empirical results. Section 5 proposes policy recommendations, while Section 6 concludes the paper.

2. Literature review

2.1. Theoretical background

The development of the corporate bond market can be explained through financial market development theory and institutional economics. In a developed financial system, the corporate bond market provides firms with medium- and long-term capital, reduces excessive dependence on bank credit, and improves resource allocation efficiency. Previous studies suggest that bond market development is closely associated with economic growth, financial stability, and the diversification of funding channels, particularly in emerging markets (Gu and Kowalewski, 2016; Smaoui et al., 2017).

Another crucial basis for comprehending the evolution of the corporate bond market is provided by institutional economics. According to Gu and Kowalewski (2016), creditor protection and legal enforcement are essential because investors are more willing to hold corporate bonds when their rights are protected. Begum and Kamal (2018) demonstrated that bond market development is positively impacted by the quality of the legal environment, particularly in emerging nations. Reducing uncertainty, lowering transaction risks, and boosting market trust may be achieved by clear legislation, efficient market supervision, predictable enforcement, and sufficient investor protection. In this way, the institutional basis for the expansion of the corporate bond market is formed by the legislative framework and market monitoring mechanism.

Market microstructure theory also highlights the importance of infrastructure, price mechanisms, and information transparency. Efficient secondary markets, trading and settlement systems, benchmark yield curves, credit rating agencies, and transparent disclosure procedures all contribute to reduced information asymmetry, better price discovery, and increased market liquidity. These requirements are especially critical in corporate bond markets, where investors require accurate data to assess credit risk and issuer repayment capability (Bessembinder et al., 2006; Bessembinder and Maxwell, 2008; Edwards et al., 2007).

Investor structure and financial intermediaries play an important role in the growth of the corporate bond market. According to Ayala et al. (2017), domestic market circumstances and investor structure are crucial factors in the growth of corporate bond markets in emerging nations. This indicates that a diverse investor base, particularly one comprised of institutional investors, may provide consistent demand and enhance market discipline. At the same time, financial intermediaries such as securities companies, banks, underwriters, and consulting organizations assist issuers in connecting with investors, analyzing credit risk, and increasing market liquidity.

Finally, issuance criteria and disclosure clarity are both potentially important. Jahur and Quadir (2010) contended that complex issuance procedures and high issuing costs may stifle bond market development in underdeveloped nations. Meanwhile, Adusei and Adeleye (2021) demonstrated that corporate disclosure is favorably connected with credit market development. As a result, the evolution of the corporate bond market should be viewed in terms of interactions between legal quality, market infrastructure, investor structure, issuance circumstances, and information transparency. This theoretical framework serves as the foundation for constructing the study's research hypotheses.

2.2. Empirical studies

The development of the corporate bond market has long been considered an important indicator of capital market maturity and the ability of an economy to diversify financing channels. Unlike bank credit, the corporate bond market enables firms to access medium- and long-term funding through market mechanisms, while also contributing to risk diversification within the financial system and improving resource allocation efficiency. However, international experience suggests that the development of this market is not the result of a single factor but rather the product of interactions among institutional conditions, market structure, and participant behavior.

Several studies highlight that the legal framework and market supervision mechanisms serve as institutional foundations determining the formation, operation, and expansion of the corporate bond market. Smaoui et al. (2017), examining both developed and emerging economies, found that strong institutional conditions are positively

associated with bond market development. This finding implies that an effective legal environment not only reduces transaction costs but also enhances market credibility. Similarly, Gu and Kowalewski (2016) argued that creditor protection and strong legal enforcement mechanisms are prerequisites for corporate bond market development, as investors are only willing to hold debt instruments when they trust that their rights will be protected in the event of disputes or default risks.

From a more specific perspective, Jahur and Quadir (2010) pointed out that in developing markets, complex, inconsistent, and non-transparent legal procedures are among the main reasons for slow corporate bond market development. Begum and Kamal (2018) also found that the quality of legal frameworks has a statistically significant positive effect on bond market development. From an institutional economics perspective, this finding is consistent with theoretical expectations: when regulations governing issuance, trading, disclosure, and enforcement are clearly designed and predictable, policy uncertainty declines, compliance costs become more manageable, and investor confidence is strengthened.

In addition, market infrastructure and pricing/reference mechanisms are essential conditions for corporate bond market development. Jahur and Quadir (2010) argued that the lack of secondary markets, market makers, and pricing support institutions constitutes a major barrier to bond market development in developing economies. Bessembinder et al. (2006) showed that improving market information quality can generate positive liquidity externalities, thereby reducing institutional investors' trading costs. Edwards et al. (2007) also demonstrated that greater price transparency is associated with lower transaction costs in corporate bond markets. From a market design perspective, strong infrastructure helps reduce information asymmetry, supports price discovery, and facilitates both primary issuance and secondary market trading.

Unlike equity markets, corporate bonds require advanced credit analysis, risk pricing, and portfolio management capabilities. Therefore, institutional investors such as investment funds, insurance companies, pension funds, and banks play particularly important roles. Ayala et al. (2017) found that the surge in corporate bond issuance in emerging economies after the global financial crisis reflected not only favorable international financial conditions but also domestic factors, including investor structure and local currency market development. Financial intermediaries also help reduce information asymmetry and search costs, thereby promoting issuance and secondary market trading. Moretti et al. (2024) further suggested that factors increasing investor demand can reduce yields and stimulate issuance, highlighting the importance of investor demand for market expansion.

Jahur and Quadir (2010) emphasized that complicated issuance procedures and high costs are key obstacles preventing bond market expansion in developing countries. Issuance costs should be understood broadly, including advisory fees, underwriting costs, listing fees, disclosure requirements, and compliance costs, as well as indirect costs such as higher interest rates resulting from information risks or discounts needed to attract investors.

Finally, transparency and information disclosure are core conditions for sustainable corporate bond market development. Corporate bond investment involves exchanging future cash flows for credit risk exposure. Therefore, insufficient disclosure of financial conditions, debt obligations, capital use purposes, collateral, and repayment capacity creates significant difficulties for investors in risk assessment. Adusei and Adeleye (2021) found that corporate disclosure levels are positively associated with credit market development, including corporate bond markets. Cavallo and Valenzuela (2010) also demonstrated that transparency reduces capital costs and expands firms' access to debt financing.

Furthermore, transparency affects not only initial investment decisions but also secondary market liquidity. Bessembinder and Maxwell (2008) argued that transparency improves market efficiency by enhancing price discovery and reducing information asymmetry. Goldstein et al. (2007) also found that increasing transparency improves, or at least does not harm, liquidity across many types of bonds. In emerging markets, where credit rating systems and disclosure discipline are still developing, transparency becomes even more critical.

Despite the important theoretical and empirical contributions of previous studies, several limitations remain. First, many international studies focus on macro or cross-country analyses, which may not fully reflect specific institutional characteristics and market behaviors in individual countries. Second, studies often examine factors separately rather than evaluating them within an integrated analytical framework. Third, in Vietnam, existing studies mainly focus on issuance drivers, sector-specific risks, investor psychology, or specialized segments such as green bonds, while few studies simultaneously quantify the impact of institutional, infrastructure, investor, issuance, and transparency factors. Based on the literature review, five hypotheses are proposed to examine the impact of key factors on the development of the corporate bond market, as follows:

H1: Legal framework and market supervision have a positive impact on corporate bond market development.
H2: Market infrastructure and pricing mechanisms have a positive impact on corporate bond market development.
H3: Investor structure and financial intermediaries have a positive impact on corporate bond market development.
H4: Issuance procedures and costs have a positive impact on corporate bond market development.

H5: Disclosure and transparency have a positive impact on corporate bond market development.

These hypotheses provide a comprehensive understanding of corporate bond market development, emphasizing that market expansion is not driven by a single factor. Instead, it depends on a combination of institutional quality, market infrastructure, investor structure, issuance conditions, and information transparency. This framework is particularly relevant to Vietnam, where the corporate bond market is undergoing restructuring and still faces challenges related to investor confidence, secondary market liquidity, and long-term sustainability.

3. Methodology

The research procedure, illustrated in Fig. 1, begins with a literature review and research gap identification, from which the research hypotheses are derived. A structured questionnaire is then designed to measure the key constructs of the proposed model. Following data collection, the dataset is screened and analyzed using descriptive statistics. Cronbach's Alpha is applied to assess the reliability of the measurement scales. Confirmatory Factor Analysis (CFA) is then used to validate the measurement model and examine the relationships between observed variables and latent constructs. Finally, multiple linear regression is conducted to test the hypotheses, followed by discussion of the findings and policy implications.

3.1. Data and variable measurement

The primary data used in this study were gathered from market participants who were either participating in or informed about Vietnam's corporate bond market using a structured questionnaire survey. The survey was conducted in 2025 before the empirical analysis was performed. Investors, issuing companies, financial intermediaries such as securities firms, banks, and advisory organizations, regulatory bodies, and other market-related actors are among the survey respondents. The purpose of this respondent structure is to gather a variety of viewpoints from the corporate bond market's supply, demand, intermediary, and regulatory sides.

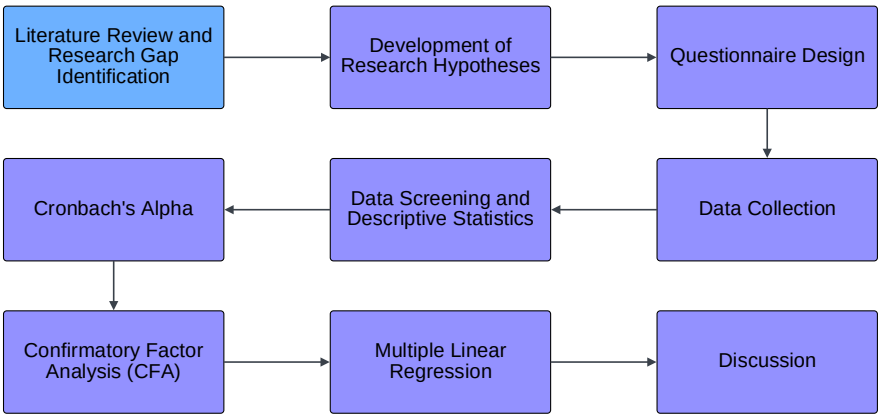


Fig. 1: Research procedure

There were 176 valid observations from the survey. Convenience sampling and simple stratification by participant group were used to select respondents in order to increase the coverage of various market participants. This sampling technique may have some representativeness issues even if it enables the study to get useful market-based judgments. The questionnaire was created based on earlier research on the evolution of the bond market and modified to take into account the corporate bond market in Vietnam. A five-point Likert scale, with 1 denoting strongly disagree and 5 denoting strongly agree, was used to measure the observed variables. Because the primary constructs in this study are latent variables that cannot be directly observed and must instead be measured through a variety of observed indicators, the use of Likert-scale items is appropriate. The observed variables and measurement scales used to measure each construct (BMD, REG, INF, INV, ISS, DIS) are presented in Table 1.

Corporate Bond Market Development (BMD) is the dependent variable. In terms of its capacity to satisfy medium- and long-term financing needs, serve as a crucial financing channel alongside bank credit, draw in a variety of issuing companies, support secondary market liquidity, and enhance capital allocation and financial stability, this construct represents the perceived development level of Vietnam's corporate bond market.

Five categories of factors make up the independent variables:

- First, the efficacy, stability, predictability, and clarity of legislative laws and supervisory processes are reflected in the legal framework and market supervision (REG).
- Second, the availability of price reference data, benchmark yield curves, trading and settlement systems, and credit rating or advising organizations is captured by market infrastructure and pricing mechanisms (INF).

- Third, the capability of financial intermediaries, the participation of institutional investors, and the variety of the investor base are all reflected in investor structure and financial intermediaries (INV).
- Fourth, the procedural and cost-related circumstances that businesses encounter while issuing corporate bonds are captured by issuance procedures and costs (ISS).
- Fifth, the quality of issuer disclosure, financial reporting, market openness, and the contribution of information disclosure to bolstering investor confidence are all reflected in disclosure and transparency (DIS).

Table 1: Measurement scales of variables

Variable name	Symbol	Observed variables	Source
		Dependent variable	
Corporate bond market development (BMD)	BMD1	The current corporate bond market size is sufficient to meet medium- and long-term financing needs	Jahur and Quadir (2010) and Begum and Kamal (2018)
	BMD2	Corporate bonds serve as an important financing channel alongside bank credit	
	BMD3	Diverse participation of issuing firms	
	BMD4	Corporate bonds are easily traded in the secondary market (good liquidity)	
	BMD5	Corporate bond market development improves capital allocation and financial stability	
		Independent variables	
Legal framework and market supervision (REG)	REG1	Legal regulations are clear and easy to apply	Jahur and Quadir (2010) and Begum and Kamal (2018)
	REG2	Market supervision mechanisms operate effectively	
	REG3	Policy framework is stable and predictable	
	REG4	Investor protection regulations are adequate	
Market infrastructure and pricing mechanisms (INF)	INF1	Pricing reference information is accessible	Begum and Kamal (2018), Bessembinder et al. (2006), and Jahur and Quadir (2010)
	INF2	Existence of yield curve benchmark	
	INF3	Trading and settlement system efficiency	
	INF4	Credit rating and advisory institutions	
Investor structure and financial intermediaries (INV)	INV1	Large and diverse investor base	Ayala et al. (2017), Begum and Kamal (2018), and Jahur and Quadir (2010)
	INV2	Active participation of institutional investors	
	INV3	Competent financial intermediaries	
	INV4	Effective intermediary connections	
Issuance procedures and costs (ISS)	ISS1	Issuance procedures are time-consuming	Jahur and Quadir (2010)
	ISS2	High issuance costs	
	ISS3	Issuance conditions are appropriate	
	ISS4	Acceptable time-to-market	
Disclosure and transparency (DIS)	DIS1	Full disclosure by issuers	Adusei and Adeleye (2021), Begum and Kamal (2018), and Jahur and Quadir (2010)
	DIS2	Clear financial reporting	
	DIS3	Poor disclosure exists in the market	
	DIS4	Transparency improves investor confidence.	

3.2. Model structure

Based on the literature review and previous empirical studies by Begum and Kamal (2018) and Jahur and Quadir (2010), this study proposes a research model in which the development of the corporate bond market is influenced by five key groups of factors, including legal framework and market supervision, market infrastructure and pricing mechanisms, investor structure and financial intermediaries, issuance procedures and costs, and disclosure and transparency. The initial model is specified as follows:

$$BMD_i = \beta_0 + \beta_1 REG_i + \beta_2 INF_i + \beta_3 INV_i + \beta_4 ISS_i + \beta_5 DIS_i + \varepsilon_i$$

where, BMD: Corporate bond market development. REG: Legal framework and market supervision. INF: Market infrastructure and pricing mechanisms. INV: Investor structure and financial intermediaries. ISS: Issuance procedures and costs. DIS: Disclosure and transparency. β_0: Intercept. β_1, β_2, β_3, β_4, β_5: Regression coefficients. ε_i: Random error term

3.3. Estimation techniques

This study applies a quantitative estimation procedure to examine the determinants of corporate bond market development in Vietnam.

First, descriptive statistics are used to summarize the characteristics of the survey sample and provide an overview of the collected data. Second, Cronbach's Alpha is employed to assess the internal consistency of the measurement scales. Constructs with Cronbach's Alpha values above the commonly accepted threshold of 0.7 are considered reliable for further analysis. Third, CFA was conducted to evaluate the measurement model. Following common SEM practice, model fit was assessed using CMIN/df, CFI, TLI, and RMSEA (Kline, 2016). The model was considered acceptable when CMIN/df was below 3, CFI and TLI were above 0.90, and RMSEA was below 0.08 (Hair et al., 2013). Standardized factor loadings above 0.50 were considered acceptable, while loadings above 0.70 indicated stronger item reliability (Hair et al., 2013).

Finally, after the measurement model is validated, multiple linear regression is employed to test the proposed hypotheses. The regression model evaluates the effects of legal framework and market supervision, market infrastructure and pricing mechanisms, investor structure and financial intermediaries, issuance procedures and costs, and disclosure and transparency on corporate bond market development. Statistical significance, regression coefficients, adjusted R^2, and multicollinearity indicators are used to assess the explanatory power and reliability of the estimated model.

4. Results

4.1. Overview of Vietnam's corporate bond market in recent years

During the 2023–2024 period, Vietnam's corporate bond market experienced greater diversification in bond types. Private placements continued to account for the majority of total issuance value, with several successful issuances, particularly in 2024 when issuance volume increased significantly over the previous year. In addition, public corporate bond issuance has gradually gained popularity due to improved transparency and broader accessibility for individual investors, although it continues to account for a relatively small share of total issuance value. Furthermore, green bonds – issued to finance environmentally friendly projects – emerged as a new trend and recorded strong growth in 2024, with issuance reaching VND 6.87 trillion, representing a 275% increase compared to the previous year.

4.1.1. Bond maturity

During 2023–2024, Vietnam's corporate bond market witnessed notable changes in issuance maturity. The average maturity of newly issued corporate bonds in 2024 reached 4.0 years, slightly higher than 3.6 years in 2023. This increase reflects enterprises' growing preference – particularly among credit institutions and manufacturing firms – for longer maturities to meet medium- and long-term funding needs. However, the real estate sector recorded a decline in average maturity, reflecting a more cautious approach to balancing financial resources and project timelines.

4.1.2. Issuer structure

Between 2023 and 2024, Vietnam's corporate bond issuer structure shifted noticeably (Fig. 2). Banks remained dominant, with their issuance share rising from 56.72% in 2023 to 67.61% in 2024, reflecting stronger capital mobilization needs. In contrast, real estate firms saw their share decline from 23.82% to 20.73%, due to tighter credit conditions, stricter transparency requirements, and weaker market confidence after the 2022 bond incidents. Securities companies continued to account for less than 2%, while non-financial firms dropped significantly from 17.79% to 10.03%, indicating continued caution among non-financial enterprises under stricter market regulations.

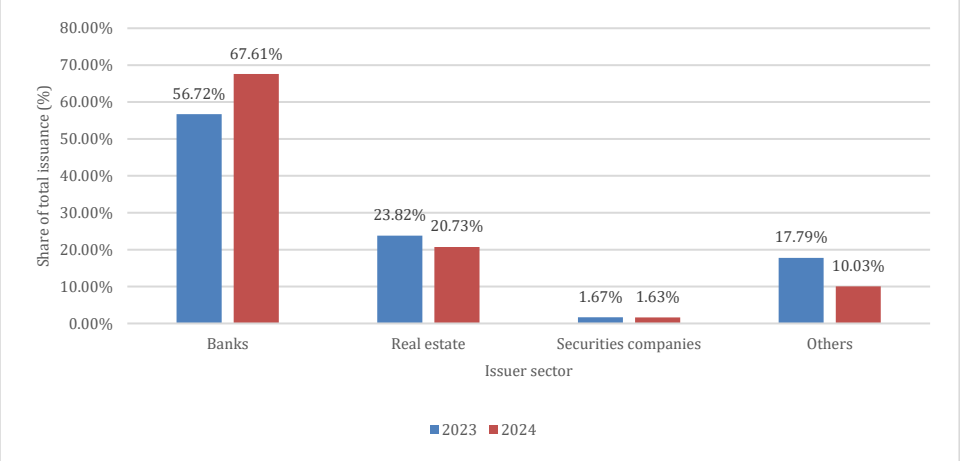


Fig. 2: Corporate bond issuance structure, 2023–2024

Overall, the corporate bond market is undergoing restructuring, with increased concentration in the financial and banking sectors, while corporate participation remains constrained by confidence and issuance capability challenges.

4.1.3. Investor structure

During 2023–2024, Vietnam's corporate bond market recorded notable developments, particularly in the secondary market. As of October 27, 2023, the total trading value of private corporate bonds reached VND 43.3 trillion, with an average of VND 627.5 billion per trading session. Investors remain predominantly financial institutions such as banks, investment funds, and insurance companies – entities with stronger risk assessment capabilities and greater capacity to provide market liquidity. Vietnam's capital market still lacks depth and institutional investor participation, limiting its effectiveness as a stable long-term financing channel. This structural limitation not only constrains sustainable development of the corporate bond market but also increases vulnerability to financial shocks. Therefore, expanding institutional investor participation is considered a key factor in improving market stability and developing long-term funding sources. Fig. 3 illustrates the limited diversity of professional investors in Vietnam's corporate bond market compared with selected regional markets.

4.2. Empirical results

The dataset includes 176 valid observations collected from senior managers and finance officers across enterprises (Table 2).

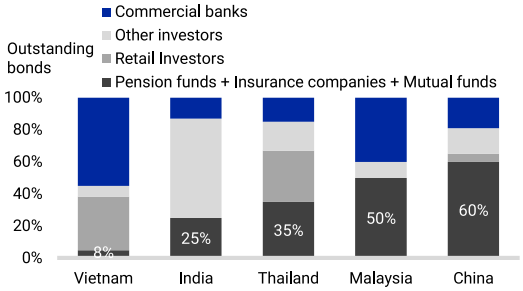


Fig. 3: The corporate bond market lacks diversity of professional investors

Table 2: Sample descriptive statistics

Indicator	Frequency	Percentage (%)
Current role		
Investor	33	18.75
Issuing enterprise	36	20.45
Intermediary organization (securities firms, banks, advisors)	40	22.73
Regulatory authority	26	14.77
Others (researchers, consultants, market observers, etc.)	41	23.3
Years of experience related to corporate bonds		
< 1 year	16	9.09
1-3 years	31	17.61
3-5 years	56	31.82
> 5 years	73	41.48
Frequency of monitoring the corporate bond market		
Occasionally	24	13.64
Monthly	29	16.48
Weekly	58	32.95
Daily	65	36.93

Before conducting CFA and multiple linear regression, the reliability of the measurement scales was assessed using Cronbach's Alpha. The results indicate that all measurement scales in the model exhibit high Cronbach's Alpha values. Specifically, the Cronbach's Alpha coefficients for BMD, REG, INF, INV, ISS, and DIS are 0.885, 0.888, 0.837, 0.856, 0.925, and 0.861, respectively (Table 3). All of these values exceed the commonly accepted threshold of 0.7, indicating that the measurement scales demonstrate good reliability and are suitable for subsequent analyses.

Table 3: Cronbach's alpha test results

Variable name	Symbol	Cronbach's alpha
Corporate bond market development	BMD	0.885
Legal framework and market supervision	REG	0.888
Market infrastructure and pricing mechanisms	INF	0.837
Investor structure and financial intermediaries	INV	0.856
Issuance procedures and costs	ISS	0.925
Disclosure and transparency	DIS	0.861

These results indicate that all constructs have acceptable internal consistency and can be retained for CFA in Fig. 4. The standardized CFA results indicate that the measurement model has a good overall fit. The Chi-square/df value is 1.240, which is below the recommended threshold of 3. The CFI and TLI values are 0.978 and 0.975, respectively, exceeding the commonly accepted threshold of 0.90. In addition, the RMSEA value is 0.037, lower than 0.08, while PCLOSE is 0.955, further confirming the adequacy of the model fit. The standardized factor loadings are generally acceptable. Most observed variables have loadings above 0.70, indicating that they adequately represent their corresponding latent constructs. The BMD, REG, INF, INV, ISS, and DIS constructs all show satisfactory measurement quality. However, INF4 has a relatively lower loading of 0.58, but it remains above the minimum acceptable threshold of 0.50. Overall, the CFA results confirm that the observed variables are suitable for measuring the proposed latent constructs, allowing the study to proceed to regression analysis.

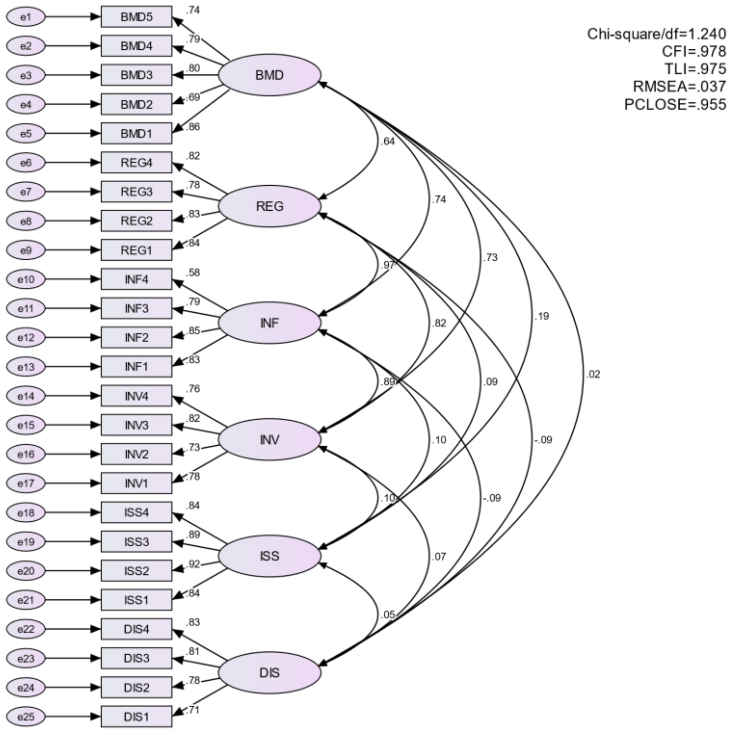


Fig. 4: Standardized CFA measurement model

The Pearson correlation matrix shows that BMD is positively and significantly correlated with REG, INF, INV, and ISS (Table 4). Among these variables, INV has the strongest correlation with BMD, followed by INF and REG. ISS has a weaker but still significant positive correlation with BMD, while DIS is not significantly correlated with BMD. Some correlations among independent variables are relatively high, especially between REG and INF, INF and INV, and REG and INV. Therefore, multicollinearity is further examined using VIF values in the regression model.

Table 4: The Pearson correlation matrix

Variable	BMD	REG	INF	INV	ISS	DIS
BMD	1					
REG	0.548**	1				
INF	0.616**	0.840**	1			
INV	0.635**	0.718**	0.781**	1		
ISS	0.170*	0.084	0.098	0.087	1	
DIS	0.029	-0.081	-0.063	0.054	0.048	1

**: Indicates significance at the 0.01 level; *: Indicates significance at the 0.05 level

In Table 5, the multiple linear regression results indicate that the model has acceptable explanatory power. The R-Squared value is 0.452, meaning that the five independent variables, including DIS, ISS, INV, REG, and INF, explain 45.2% of the variation in BMD. After adjusting for the number of predictors, the Adjusted R-squared is 0.436, indicating that the model remains relatively stable and meaningful.

The ANOVA test yields an F-value of 28.100 with a significance level of 0.000, which is less than 0.05 (Table 6). This result confirms that the regression model is well fitted to the data and is statistically significant overall. In other words, at least one of the independent variables in the model has a significant effect on the dependent variable, BMD.

In the linear regression results, the VIF values range from 1.013 to 4.383, all below the commonly accepted threshold of 5, indicating that multicollinearity does not pose a serious problem in the regression model. The regression coefficient results show that INF has a positive and statistically significant effect on BMD, with B = 0.317 and p = 0.016 < 0.05. This indicates that better market infrastructure and pricing mechanisms are associated with higher corporate bond market development. INV also has a positive and highly significant effect on BMD, with B = 0.430 and p = 0.000 < 0.05. Among the independent variables, INV has the largest standardized coefficient (Beta = 0.380), suggesting that investor structure and financial intermediaries make the strongest contribution to corporate bond market development. In addition, ISS shows a weak positive tendency and is considered marginally significant at the 10% level, with B = 0.108 and p = 0.066 > 0.05. Therefore, H2 and H3 are supported at the 5% significance level, while H4 is weakly supported at the 10% level (Table 7). In contrast, REG is not statistically significant, with B = 0.027 and p = 0.808 > 0.05, indicating insufficient evidence that Legal Framework and Market Supervision directly affect BMD in this model. DIS is not statistically significant, with B = 0.024 and p = 0.686 > 0.05, suggesting that disclosure and transparency do not show a clear direct effect on BMD in the current sample.

Table 5: Multiple linear regression results

Model	R	R-squared	Adjusted R-squared	Std. error of the estimate	Durbin-Watson
1	0.653[a]	0.452	0.436	0.60159	1.622

a: Predictors: (Constant), REG, INF, INV, ISS, and DIS; Dependent variable: BMD

Table 6: ANOVA

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	50.849	5	10.170	28.100	0.000[b]
	Residual	61.525	170	0.362		
	Total	112.374	175			

b: Predictors: (Constant), REG, INF, INV, ISS, and DIS; Dependent variable: BMD

Table 7: Linear regression results

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity statistics	
		B	Std. error	Beta			Tolerance	VIF
1	(Constant)	0.300	0.411		0.729	0.467		
	REG	0.027	0.111	0.026	0.244	0.808	0.283	3.532
	INF	0.317	0.130	0.289	2.432	0.016	0.228	4.383
	INV	0.430	0.106	0.380	4.050	0.000	0.365	2.736
	ISS	0.108	0.058	0.106	1.852	0.066	0.987	1.013
	DIS	0.024	0.058	0.023	0.405	0.686	0.959	1.043

Based on the estimated coefficients, the regression equation of the model is specified as follows:

$$BMD = 0.3 + 0.317INF + 0.43INV + 0.108ISS$$

This result indicates that BMD is mainly driven by market infrastructure and pricing mechanisms, and investor structure and financial intermediaries. In addition, issuance procedures and costs show a marginally significant positive effect at the 10% level, while the legal framework, disclosure, and transparency are not clearly supported in the current model. The hypothesis testing results are summarized in Table 8.

5. Discussion

The empirical results provide several important insights into the determinants of Vietnam's

corporate bond market development. The findings suggest that, in the Vietnamese context, market development is more strongly associated with operational infrastructure, investor participation, and intermediary capacity than with regulatory and disclosure-related factors alone.

First, the significant positive effect of market infrastructure and pricing mechanisms supports previous studies emphasizing the role of secondary markets, pricing systems, settlement mechanisms, and credit rating institutions in bond market development. Jahur and Quadir (2010) argued that the absence of active secondary markets, market makers, and reliable pricing mechanisms is a major barrier to bond market expansion in developing economies. Similarly, Bessembinder et al. (2006) and Edwards et al. (2007) showed that market transparency and price information can reduce transaction costs and improve liquidity. In Vietnam, this finding is highly relevant because the corporate bond market has been undergoing restructuring after the confidence shocks in 2022. As shown in the market overview, secondary market trading has improved, but the market still requires better pricing references, trading platforms, settlement systems, and credit rating mechanisms to support sustainable development. Therefore, the significant role of INF suggests that technical and institutional infrastructure provides a practical foundation for improving liquidity, price discovery, and investor confidence.

Table 8: Results of hypothesis testing

Hypothesis	Statement	Results
H1	Legal framework and market supervision have a positive impact on corporate bond market development.	Not supported
H2	Market infrastructure and pricing mechanisms have a positive impact on corporate bond market development.	Supported
H3	Investor structure and financial intermediaries have a positive impact on corporate bond market development.	Supported
H4	Issuance procedures and costs have a positive impact on corporate bond market development.	Weakly supported
H5	Disclosure and transparency have a positive impact on corporate bond market development.	Not supported

Second, investor structure and financial intermediaries have the strongest effect on corporate bond market development. This finding is consistent with Ayala et al. (2017), who highlight the importance of domestic investor structure and local market development in explaining the expansion of corporate bond markets in emerging economies. It is also consistent with Moretti et al. (2024), who suggested that stronger investor demand can reduce yields and stimulate issuance. In the Vietnamese context, the importance of INV is especially evident. As discussed in Section 4.1, Vietnam's corporate bond market still lacks a deep and diversified institutional investor base. Investors remain concentrated among banks, investment funds, insurance companies, and other financial institutions, while long-term investors such as pension funds and specialized bond funds remain underdeveloped.

Fig. 3 also shows that Vietnam has a lower participation of professional long-term investors compared with several regional markets. This explains why investor structure and intermediary capacity strongly influence market development: without professional investors and competent intermediaries, the market cannot develop stable demand, risk assessment capacity, or sustainable liquidity.

Third, issuance procedures and costs show a weak but positive effect at the 10% significance level. This result partially supports Jahur and Quadir (2010), who argued that complicated issuance procedures and high issuance costs can restrict bond market development in developing countries. In Vietnam, issuance conditions matter, but their impact appears weaker than infrastructure and investor-related factors. This may reflect the fact that firms' ability to issue bonds depends not only on procedures and costs, but also on market confidence, investor appetite, and intermediary support. During the 2023–2024 period, the market experienced a shift in issuer structure, with banks increasing their issuance share from 56.72% in 2023 to 67.61% in 2024, while real estate firms and non-financial firms reduced their participation. This suggests that firms with stronger reputations and financial capacity, especially banks, are still able to access the bond market, whereas weaker issuers remain constrained by investor confidence and regulatory requirements. Therefore, issuance procedures may influence market development, but their effect is conditional on broader market conditions.

The insignificant effects of legal framework and market supervision (REG) and disclosure and transparency (DIS) differ from previous studies, which emphasize the roles of legal quality, creditor protection, regulatory enforcement, and disclosure and transparency in bond market development (Adusei and Adeleye, 2021; Begum and Kamal, 2018; Bessembinder and Maxwell, 2008; Gu and Kowalewski, 2016; Smaoui et al., 2017). However, this does not mean that regulation and transparency are unimportant.

In Vietnam, frequent legal adjustments after the 2022 bond-related incidents may have created short-term uncertainty, while investor behavior may still be driven more by yields, intermediary recommendations, issuer reputation, and market confidence. Therefore, REG and DIS may not yet show strong direct effects in the current model, but they remain important for long-term market stability. This suggests that Vietnam should not rely solely on regulatory tightening or disclosure requirements, but should also prioritize improving market infrastructure, expanding institutional investors, strengthening intermediary quality, and enhancing secondary market liquidity. Overall, the findings suggest that Vietnam's corporate bond

market development is currently driven more by practical market-enabling conditions than by regulatory and disclosure factors alone. Market infrastructure, pricing mechanisms, investor structure, and intermediary capacity appear to be the most direct drivers of market development, while issuance procedures play a supporting but weaker role.

Although the legal framework and transparency do not show significant direct effects in the current model, they remain essential foundations for restoring confidence and ensuring long-term sustainability. Therefore, the development of Vietnam's corporate bond market requires a balanced approach that combines infrastructure improvement, investor base expansion, intermediary strengthening, and continued legal and disclosure reforms.

First, Vietnam should strengthen market infrastructure and pricing mechanisms. The significant role of market infrastructure suggests that the corporate bond market needs more reliable trading, settlement, and pricing systems. A centralized and transparent secondary trading platform should be further developed to improve liquidity and reduce transaction costs. In addition, benchmark yield curves and bond pricing reference systems should be strengthened so that investors and issuers can assess bond values more accurately.

Second, the investor base should be expanded toward greater professionalism and long-term orientation. Since investor structure and financial intermediaries have the strongest effect on market development, Vietnam should promote the participation of institutional investors such as insurance companies, pension funds, bond investment funds, and asset management companies. These investors can provide stable long-term demand and improve market discipline through better risk assessment.

Third, issuance procedures should be simplified while maintaining necessary investor protection. The results show that issuance conditions have a marginally significant positive effect, suggesting that procedural and cost-related factors still matter. Therefore, issuance documentation should be standardized, administrative procedures should be made more transparent, and approval processes should become more predictable. However, such simplification should not lead to weaker supervision.

Fourth, legal stability and disclosure quality should continue to be improved as long-term foundations for market sustainability. Although the legal framework and disclosure transparency do not show significant direct effects in the regression model, they remain essential for rebuilding investor confidence following recent bond-related incidents. Regulatory changes should follow a clear roadmap to avoid creating uncertainty for issuers and investors. In addition, issuers should be required to disclose clear information regarding financial conditions, debt obligations, collateral, the use of proceeds, and repayment sources.

6. Conclusion

This study examines the determinants of corporate bond market development in Vietnam using survey data from 176 market participants. Cronbach's Alpha, CFA, and multiple linear regression are applied to assess the measurement scales and test the proposed hypotheses. The results show that market infrastructure and pricing mechanisms, together with investor structure and financial intermediaries, have positive and significant effects on corporate bond market development. Issuance procedures also show a weak positive effect at the 10% significance level, while the legal framework, market supervision, and disclosure and transparency do not show clear direct effects. These findings suggest that Vietnam should prioritize improving market infrastructure, expanding institutional investors, strengthening financial intermediaries, and simplifying issuance procedures. Although regulation and disclosure are not statistically significant in this model, they remain important foundations for long-term market stability and investor confidence. This study is limited by its modest sample size and survey-based data. Accordingly, future research may expand the sample and apply additional diagnostic or robust estimation methods.

List of abbreviations

ANOVA	Analysis of variance
BMD	Corporate bond market development
CFA	Confirmatory factor analysis
CFI	Comparative fit index
CMIN/df	Chi-square divided by degrees of freedom
DIS	Disclosure and transparency
df	Degrees of freedom
INF	Market infrastructure and pricing mechanisms
INV	Investor structure and financial intermediaries
ISS	Issuance procedures and costs
OECD	Organisation for economic co-operation and development
PCLOSE	P-value for testing close fit
REG	Legal framework and market supervision
RMSEA	Root mean square error of approximation
SEM	Structural equation modeling
TLI	Tucker–Lewis index
VIF	Variance inflation factor
VND	Vietnamese dong

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Compliance with ethical standards

Ethical considerations

Participation was voluntary, informed consent was obtained, and responses were collected anonymously.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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