THE CHOICE BETWEEN BOND ISSUANCE AND OTHER CAPITAL STRUCTURE DECISIONS: EVIDENCE FROM LISTED COMPANIES IN VIETNAM

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Abstract: ***This study examines the factors influencing firms' decisions to issue bonds versus other capital structure options, based on a panel of 325 firms and 1,662 firm-year observations from 2016 to 2024. Results show that firms with negative return on assets (ROA), but strong liquidity, large size, and high leverage are more likely to issue bonds. These traits suggest that large, debt-experienced firms with stable liquidity prefer bond financing. Regression analysis also highlights the role of macroeconomic conditions. GDP growth positively affects the likelihood of bond issuance, while inflation has a negative effect; both are significant at the 10% level. Additionally, bond market development, measured by the bond market size-to-GDP ratio, positively influences bond issuance at the 1% level. In contrast, the long-term domestic credit balance has a significant negative impact at the 1% level. The findings offer policy implications for firms seeking financing strategies and for policymakers promoting capital market development.***

• Keywords: *corporate bond, capital structure decision, pecking order theory, firm characteristics, macroeconomic development.*

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Introduction

Corporate bonds constitute an important financing channel for firms to meet strategic funding needs, including business expansion, debt refinancing as an alternative to bank loans, and project financing. Bond issuance enables firms to diversify funding sources without diluting existing ownership. From an investor perspective, corporate bonds offer relatively predictable income through periodic interest payments and principal repayment at maturity. Compared to shareholders, bondholders are creditors rather than owners and therefore enjoy higher priority claims on firm assets in the event of bankruptcy.

Despite the growing relevance of corporate bonds, empirical evidence on the determinants of corporate bond issuance in Vietnam remains limited. This study is grounded in the pecking order theory, trade-off theory, and institutional theory. According to Myers and Majluf (1984), firms prioritize internal financing, followed by debt issuance, and resort to equity issuance only as a last option due to adverse selection concerns. The trade-off theory further suggests that firms choose an optimal capital structure by balancing the benefits of debt against its associated costs (Myers, 1984), implying that bond issuance depends critically on firms' financial capacity to manage risk. In addition, institutional theory emphasizes that financing decisions are also shaped by institutional constraints and legitimacy considerations rather than purely by economic optimization.

Accordingly, this paper examines both firm-level and macroeconomic determinants of corporate bond issuance relative to other capital structure choices, such as bank loans and equity financing. Empirical results indicate that firms with weak operating performance, reflected by negative return on assets (ROA), but strong liquidity, large size, and high leverage are more likely to issue corporate bonds.

This study contributes to the literature by extending research on capital structure decisions in Vietnam, an emerging market where the corporate bond market remains underdeveloped and faces limited investor and policy attention. The findings provide practical implications for corporate managers in selecting financing strategies and for regulators seeking to promote the development of the domestic capital market.

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The remainder of the paper is organized as follows. Section 2 presents the theoretical framework and hypothesis development. Section 3 describes the research design and data. Section 4 reports and discusses the empirical results. Section 5 concludes the study and outlines policy implications.

1. Literature review and hypothesis development

1.1. Theoretical background and related literature

Capital structure decisions have been extensively explained by several theoretical frameworks, notably the pecking order theory, trade-off theory, and institutional theory. According to the pecking order theory, firms do not pursue an optimal capital structure but instead follow a financing hierarchy driven by information asymmetry (Myers and Majluf, 1984). Firms prioritize internal funds, such as retained earnings, and resort to debt financing only when internal resources are insufficient, while external equity is avoided due to adverse selection concerns and negative market signals. Consequently, firms with higher profitability tend to rely less on external financing, whereas debt issuance may signal financial discipline, particularly when supported by collateral.

The trade-off theory provides an alternative explanation by emphasizing the existence of an optimal capital structure achieved through balancing the marginal benefits and costs of debt (Myers, 1984). Within this framework, debt financing, including corporate bond issuance, allows firms to exploit interest tax shields. Firms with strong profitability, tangible assets, and stable cash flows are therefore more likely to use debt instruments such as bank loans or corporate bonds. In contrast, firms with high earnings volatility, excessive leverage, or limited access to capital markets may restrain bond issuance due to elevated financial distress costs. Moreover, firms are expected to consider macroeconomic conditions when committing to long-term debt instruments (Lemmon, Roberts, and Zender, 2008).

Beyond firm-level optimization, institutional theory highlights the role of the institutional environment in shaping corporate bond issuance decisions. Prior studies argue that the development of corporate bond markets depends critically on legal quality, investor protection, contract enforcement, and information transparency (La Porta et al., 1997, 1998). In countries with effective legal systems and transparent information disclosure, investor confidence is enhanced, facilitating bond market participation and expansion. Conversely, weak institutional frameworks, information asymmetry, and distorted credit assessments raise financing costs and reduce the attractiveness of bond issuance relative to bank lending. Empirical evidence further suggests that institutional characteristics play a particularly important role in emerging economies, where policy biases and state ownership may influence firms' financing behavior (Claessens et al., 2007).

1.2. Macroeconomic and firm-specific determinants

Macroeconomic conditions exert a significant influence on corporate bond issuance by shaping firms' financing needs, risk perceptions, and investor demand. Economic growth reflects the scale of economic activity and supports the establishment of market infrastructure necessary for bond market development (Mu et al., 2013). Inflation, by contrast, is commonly associated with macroeconomic instability. Lower inflation environments tend to support bond market development, while high inflation reduces the attractiveness of bond issuance and alters government financing behavior (Claessens et al., 2007).

At the firm level, empirical studies identify several key characteristics influencing bond issuance decisions, including firm size, profitability, leverage, liquidity, and asset structure (Mizen et al., 2008). Larger firms are more likely to issue bonds due to their greater financing needs, lower information asymmetry, and better access to capital markets (Datta et al., 2000; Dennis and Mihov, 2003). Higher leverage is often associated with increased bond issuance, reflecting rollover needs and refinancing demand (Mizen et al., 2008). Liquidity also plays a positive role, as firms tend to accumulate liquid assets prior to issuing bonds to signal repayment capacity. In contrast, consistent with the pecking order theory, highly profitable firms are less inclined to issue bonds, relying instead on internal funds for operational and investment activities.

1.3. Hypothesis development

Based on the theoretical arguments and prior empirical evidence, this study proposes the following hypotheses:

H1: Firm-specific financial characteristics significantly influence firms' decisions to issue corporate bonds within their capital structure choices.

H2: Macroeconomic conditions significantly affect firms' decisions to issue corporate bonds relative to other financing options.

2. Methodology

Data collection

This study analyzes data from listed firms on the HoChiMinh Stock Exchange (HOSE) between 2016 and 2024. With factors affecting the decision to issue bonds of enterprises in capital structure decisions, data for each year will be collected for each enterprise with decisions and activities related to capital structure decisions including: issuing additional bonds, issuing additional shares, borrowing additional capital from banks. The results from data collection show that there are 325 company codes with data, corresponding to 1662 observations.

Data related to internal factors (firm characteristics) and firm decisions were manually collected from financial statements and annual reports available on the HOSE websites, along with data from the FIINGROUP Vietnam source. Data on external factors were sourced from the annual the Vietnam Statistical Yearbook published by the General Statistics Office and Vietnam Bond Market Association.

Research model

$$Choice\ of\ Bond_{i,t} = \alpha_0 + \alpha_1 * ROA_{i,t} + \alpha_2 * Lev_{i,t} + \alpha_3 * Liq_{i,t} + \alpha_4 * Fixasset_{i,t} + \alpha_5 * Firmsize_{i,t} + \alpha_6 * Shares_{i,t} + \alpha_7 * GDP_t + \alpha_8 * Inf_t + \alpha_9 * MC_Growth_t + \alpha_{10} * LTOCredit_t + \alpha_{11} * Bondmarket_t + \alpha_{12} * AvgInterestRate_t$$

Where:

$Choice\ of\ Bond_{i,t}$	is a binary variable equal to 1 if the company issues bonds, 0 otherwise
$ROA_{i,t}$	Return on total assets of firm i in year t
$Liq_{i,t}$	the value of current assets of firm i divided by current liabilities in year t
$Lev_{i,t}$	Total liabilities to total assets of firm i in year t
$Fixasset_{i,t}$	The proportion of fixed assets to total assets of company i in year t, calculated by the original price of fixed assets to total assets
$Firmsize_{i,t}$	Logarithm of total assets of firm i in year t
$Shares_{i,t}$	The size of the listed company of company i in year t, corresponding to the natural logarithm of the number of outstanding shares of company i in year t
GDP_t	GDP growth in year t
Inf_t	Inflation in year t
MC_Growth_t	Growth rate of stock market capitalization value in year t
$LTOCredit_t$	Long-term domestic credit balance, corresponding to the natural logarithm of the long-term domestic credit balance (measured in trillions)
$Bondmarket_t$	Bond market size relative to gross domestic product year t
$AvgInterestRate_t$	Average interbank lending interest rate for medium and long term in year t

3. Results

3.1. Descriptive statistics

Table 1. Descriptive statistics

Variable	Mean	Std. Dev.	Min	Max
Choice of Bond	0.174	0.380	0	1
ROA	0.059	0.064	(0.364)	0.508
LEV	0.511	0.194	0.001	1.294
LIQ	2.829	24.252	0.131	982.486
Fixasset	0.214	0.215	0.000	0.949
Firmsize	12.547	0.635	10.402	14.923
Shares	7.925	0.593	5	9.639
GDP (%)	0.060	0.069	0.026	0.081
Inf (%)	3.068	3.221	1.835	3.621
MC_Growth (%)	12.558	13	(32.7)	46.710
LTOCredit	8.273	8.274	7.741	8.728
AvgInterestRate	0.101	0.101	0.092	0.110
Bondmarket	0.109	0.110	0.050	0.170

Source: Authors data

Table 1 reports the descriptive statistics of the variables used in the empirical analysis. The mean value of the bond issuance dummy is 0.174, indicating that approximately 17.4% of firm-year observations involve bond issuance, suggesting a relatively low propensity for firms to choose bonds as a financing instrument.

Regarding firm-specific characteristics, return on assets (ROA) has a mean of 0.059 and exhibits substantial dispersion, ranging from -0.364 to 0.508, reflecting considerable heterogeneity in firm profitability. Financial leverage (LEV) shows a right-skewed distribution, with a mean of 0.511 and a maximum value exceeding unity, indicating that a subset of firms operates with high debt levels. Liquidity (LIQ) displays extremely high dispersion, with large maximum values observed in the sample; these values were verified against audited financial statements. Firm size, measured as the logarithm of assets, shows moderate variation across firms, while the fixed asset ratio averages 0.214, indicating differences in asset structure among sample firms.

Macroeconomic variables over the 2016-2024 period exhibit relative stability. GDP growth averages around 6%, and inflation remains low and stable. In contrast, stock market capitalization growth is highly volatile, reflecting fluctuations in market conditions. Long-term domestic credit and interest rates show limited variation, while the bond market size-to-GDP ratio averages approximately 11%, indicating a moderate level of corporate bond market development in Vietnam.

Overall, the descriptive statistics suggest a stable macroeconomic environment, alongside substantial heterogeneity in firm-level financial conditions.

Table 2. Collinearity diagnostics

Variable	VIF	SQRT VIF	Tolerance
Choice of Bond	1.19	1.09	0.8425
ROA	1.29	1.14	0.7725
LEV	1.69	1.3	0.5917
LIQ	1.02	1.01	0.9782
Fixasset	1.03	1.01	0.9728
Firmsize	4.69	2.17	0.2131
Shares	4.23	2.06	0.2363
GDP (%)	5.64	2.37	0.1773
Inf (%)	1.76	1.33	0.5688
MC_Growth (%)	5.08	2.25	0.1967
LTOCredit	2.4	1.55	0.4174
AvgInterestRate	2.54	1.59	0.3938
Bondmarket	4.55	2.13	0.2197
Mean VIF 2.85			

Source: Authors data

Table 2 shows all values of collinearity Diagnostics, having VIF less than 10 (O'Brien, 2007). Hence, the conclusion is that multicollinearity is not a significant concern in the research model.

3.2. Regression results

Outliers can heavily influence statistical analyses by distorting estimates and potentially leading to inaccurate conclusions (Cousineau and Chartier, 2010). To ensure the robustness of our findings, we perform analyses on both the complete dataset and a version with handling outliers. This dual approach helps confirm the stability of the results and safeguards against the influence of extreme values. To handle outliers, we applied a winsorization method. Winsorization replaces the smallest and/or largest values in a dataset with the nearest value within a certain percentile threshold, to reduce the distortion caused by outliers in regression and other statistical analyses. The model was then re-estimated based on the adjusted dataset..

Table 3. Regression results of the choice between bond issuance and capital structure decisions

Variables	Full model (Marginal effect)	Model robustcheck(Winsorization) (marginal effect)
ROA	-0.6120***	-0.7361***
	[0.1229]	[0.1011]
LEV	0.1494*	0.1448*
	[0.0823]	[0.0798]
LIQ	0.0003**	0.0003**
	[0.0001]	[0.0001]
Fixasset	-0.2571***	-0.2586***
	[0.0428]	[0.0427]
Firmsize	0.1143***	0.1120***
	[0.0381]	[0.0385]
Shares	0.0651	0.0687
	[0.0415]	[0.0420]
GDP	1.5142*	1.5944*
	[0.8521]	[0.8277]
Inf	-0.0276*	-0.0282*
	[0.0157]	[0.0158]
MC_Growth	0.0009	0.0009
	[0.0006]	[0.0006]
LTOCredit	-0.1596***	-0.1634***
	[0.0423]	[0.0413]
Bondmarket	1.7903***	1.8295***
	[0.4040]	[0.3930]
AvgInterestRate	-1.4213	-1.5228
	[2.3486]	[2.3657]
N	1662	1662
Pseudo R2	0.1817	0.1833
Prob > chi2	0.0000	0.0000
Likelihood-ratio test	LR chi2(12) = 279.64	LR chi2(12) = 282.09
Goodness-of-fit test	Hosmer-Lemeshow chi2(8) = 9.79	Hosmer-Lemeshow chi2(8) = 7.97
Correctly classified	84.78%	84.78%

Source: Authors data

Table 3 reports the Logit regression results examining the determinants of corporate bond issuance relative to other capital structure choices. The results remain consistent and robust when the model is re-estimated using the Winsorization method.

Regarding firm-specific characteristics, return on assets (ROA) has a negative and statistically significant effect at the 1% level, indicating that firms with higher profitability are less likely to issue bonds. This result supports the pecking order theory, suggesting that firms with sufficient internal funds tend to rely less on external debt financing. The fixed asset ratio (Fixasset) also negatively affects the probability of bond issuance, implying that firms with asset structures concentrated in fixed assets may prefer bank loans over bond financing.

In contrast, financial leverage (LEV), liquidity (LIQ), and firm size (Firmsize) exhibit positive and significant effects on bond issuance decisions. Highly leveraged firms are more likely to issue bonds, possibly reflecting refinancing needs or accumulated experience in debt financing. Firms with stronger liquidity positions are also more inclined to access the bond market, as adequate liquidity enhances investor confidence in repayment capacity. Firm size has a strong positive impact, consistent with lower information asymmetry, better governance, and reduced issuance costs for larger firms. The variable Shares does not show a statistically significant effect.

With respect to macroeconomic factors, GDP growth positively influences the likelihood of corporate bond issuance, while inflation has a negative effect; both are significant at the 10% level. These findings suggest that favorable economic conditions encourage long-term financing through bonds, whereas higher inflation increases

borrowing costs and reduces the attractiveness of bond issuance.

At the market level, bond market development, measured by the bond market size-to-GDP ratio, has a positive and highly significant impact on bond issuance decisions. Conversely, long-term domestic credit availability exerts a negative effect, indicating that easier access to bank credit reduces firms' reliance on bond financing. The average interest rate is not statistically significant.

Overall, the results underscore the combined influence of firm financial characteristics, macroeconomic conditions, and financial market development on corporate bond issuance decisions.

4. Conclusion

This study investigates the determinants influencing firms' choices between corporate bond issuance and other capital structure decisions, using a panel dataset of 325 firms with 1,662 firm-year observations over the period 2016-2024.

The empirical findings support the threshold effects documented by Mizen and Tsoukas (2014) and Pham et al. (2020). Firms with weak operating performance, reflected by negative ROA, but possessing strong liquidity, large size, and high leverage are more likely to issue corporate bonds. This suggests that access to the bond market depends not only on financing needs arising from low profitability but also on firms' capacity to satisfy issuance requirements and investors' expectations regarding financial stability. The results are consistent with the pecking order theory, indicating that highly profitable firms tend to rely on internal financing rather than external debt. Moreover, firms with greater size, higher leverage, and stronger liquidity appear to have better access to bond financing, reflecting accumulated debt experience and lower information asymmetry. The analysis also highlights the important role of macroeconomic conditions in shaping corporate bond issuance decisions. In line with institutional and agency theories, favorable economic growth enhances business and investor confidence, thereby encouraging long-term financing through bonds. This finding is consistent with evidence from emerging markets reported by Bae (2012). In contrast, inflation exerts a negative effect on bond issuance by increasing borrowing costs and amplifying information asymmetry, as suggested by the expectation theory of interest rates and the framework of Bernanke and Gertler (1989). Furthermore, the ratio of long-term domestic credit to GDP negatively affects the likelihood of bond issuance, indicating that in bank-dominated financial systems, firms tend to prefer bank financing due to its procedural simplicity and lower disclosure requirements. Conversely, the size of the corporate bond market relative to GDP has a positive influence, underscoring the importance of well-developed capital market infrastructure in supporting long-term financing in emerging economies. This study offers several policy implications for firms and policymakers in Vietnam. From a corporate perspective, bond issuance provides an effective means to diversify funding sources and reduce reliance on bank credit, which often involves collateral requirements, lengthy appraisal processes, and exposure to credit tightening. Firms are therefore encouraged to enhance financial transparency, strengthen credibility, and take advantage of favorable macroeconomic conditions to access the bond market. From a policy perspective, maintaining stable economic growth and controlling inflation are crucial for fostering a supportive environment for corporate bond issuance. In addition, policymakers should promote institutional mechanisms, such as credit guarantee schemes and financial intermediaries, to facilitate firms' access to the corporate bond market and support the sustainable development of Vietnam's capital market.

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