Financial leverage, state ownership, and firm value: the case of non-financial firms listed in Vietnam

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Abstract

Numerous empirical studies have confirmed the impact of financial leverage on firm value. Nevertheless, these conclusions are inconsistent due to the influence of other factors. In the context of a transition economy such as Vietnam, the state can own a certain percentage of equity capital in companies after equitization. Accordingly, this study aims to evaluate the moderating role of state ownership on the impact of financial leverage on the value of non-financial firms listed in Vietnam. The generalized method of moments was employed to analyze a sample of 481 companies from 2015 to 2021. The findings show that financial leverage has a positive effect on firm value, but this relationship is negatively moderated by state ownership. In addition, financial leverage decreases the firm value of state-owned companies. The paper suggests that the government should focus on assessing financial performance rather than political intervention in using companies' financial leverage. The results also have implications for accelerating the equitization and divestment of state capital in Vietnamese listed non-financial firms.

Keywords: Financial leverage, Firm value, State ownership

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1. Introduction

Financial leverage arises from the decision to choose sources of capital in which companies have to pay a fixed cost or fixed return, including debt and preferred equity (Damodaran, 2015; Van Horne and Wachowicz, 2008). The Modigliani-Miller theory of capital structure suggests that under tax conditions, the firm value will increase by using debt (Modigliani and Miller, 1958; Modigliani and Miller, 1963). Several studies, including Cheng and Tzeng (2011), Jihadi *et al.* (2021), Ibrahim and Isiaka (2021), Margono and Gantino (2021), and Radja and Artini (2020), support the theory that financial leverage, represented by the level of debt use, has a positive effect on firm value. However, the trade-off theory of capital structure suggests that companies use too much debt, exceeding the threshold of optimal debt utilization and resulting in significant financial distress. Therefore, the loss of firm value from facing financial distress is more than the additional benefit from the interest tax shield (Baxter, 1967; Kraus and Litzenberger, 1973), and the inevitable result is a decrease in firm value. Empirical evidence for a negative relationship between financial leverage, represented by the debt ratio and firm value, was found by Ibrahim and Isiaka (2020), Appiah *et al.* (2020), Aggarwal *et al.* (2008), Fosu *et al.* (2016), Fajaria and Isnalita (2018). Zimny (2020) found surprising results that financial leverage has a positive effect on the market value of firms with a high degree of leverage and the opposite results for the case of companies with a low level of leverage.

Agency theory explains that the separation between ownership and management is a fundamental contradiction that leads to firm agency problems (Ross, 1973; Jensen and Meckling, 1976). Accordingly, financial decisions may not be closely linked to the objective of adding value to a company. One of the mechanisms that may pressure managers to add more firm value is the use of debt because of increased creditors' control and cost of debt; however, state-owned companies are an exception. Stiglitz *et al.* (1993) showed that state ownership increases the moral hazard of managers due to government protection from bankruptcy. State-owned companies' managers are motivated to seek self-interest instead of improving firm performance, which leads to increased administration and debt costs for companies. Consequently, the firm value is reduced. In other words, state ownership may moderate the impact of financial leverage on firm value; however, previous empirical studies have not verified this relationship. Within the scope of this study, we investigate the link between financial leverage and firm value in listed non-financial companies in Vietnam, a country classified as a transition economy. As a transition economy, Vietnam has a typical feature, which is the dominance of state-controlled firms in listed sectors (Nguyen *et al.*, 2017). Therefore, it provides a unique setting for studying the impact of financial leverage on firm value in the presence of state ownership. The research results are expected to establish empirical evidence to test the agency theory and provide useful information for financial managers and the government.

The remainder of this paper is organized as follows. Section 2 reviews the theories and empirical evidence, discusses the research gaps, and develops research hypotheses. Section

3 details the research model, sample and data, and estimation method. Section 4 presents the analysis and discussion of the results. Finally, section 5 concludes the study.

2. Literature review and hypothesis development

2.1 Theoretical overview and empirical evidence

Deciding whether to finance with debt or preferred shares will create financial leverage, increasing companies' risk; therefore, the profitability and value of the company are expected to increase (Van Horne and Wachowicz, 2008; Damodaran, 2015). The traditional theory of capital structure shows that each company has a combination of financing sources, including debt and equity, to minimize the weighted average cost of capital and achieve the highest company value, which is the optimal capital structure (Scott, 1976). Baxter (1967) and Kraus and Litzenberger (1973) proposed the trade-off theory of capital structure, which suggests that while companies benefit from an interest tax shield, they also face the risk of financial distress. Their argument is more thorough and concludes similarly to others in the field. The firm value will increase if the positive contribution of the interest tax shield outweighs the negative impact of financial distress costs and vice versa. The optimal use of debt balances tax benefits and financial distress costs, leading to maximum firm value.

The influence of financial leverage on firm value has attracted the interest of many scholars. However, the relationships were found to be inconsistent, possibly due to differences in approaches to the research problem, differences in space and time associated with characteristics of policies and institutions or the operating environment of companies, and the choice of different estimation techniques or methods. Many previous studies have assessed the independent impact of financial leverage on firm value. Some of these have revealed an inverse relationship (Aggarwal *et al.*, 2008; Fosu *et al.*, 2016; Appiah *et al.*, 2020; Ibrahim and Isiaka, 2020; Fajaria and Isnalita, 2018), while others have confirmed a positive one (Cheng and Tzeng, 2011; Jihadi *et al.*, 2021; Margono and Gantino, 2021; Ibrahim and Isiaka, 2021; Radja and Artini, 2020).

Zimny (2020) analyzed quarterly data from 10 energy companies listed on the Warsaw Stock Exchange from the third quarter of 2013 to the second quarter of 2020. The author shows that the impact of financial leverage can be negative or positive on firm value depending on how debt forms the company's financial leverage. Many studies have assessed the moderating role of other factors on the impact of financial leverage on company value. Jihadi *et al.* (2021) concluded that the company value increases more from the impact of financial leverage when corporate social responsibility moderates it. Cheng and Tzeng (2011) not only asserted that the value of companies with financial leverage is superior to the unlevered case if the probability of bankruptcy is ignored and that financial leverage has a positive effect on company value before reaching the optimal capital structure but further concluded that the better the financial reporting quality is, the stronger this positive relationship will become. Meanwhile, the negative effect of financial leverage on company value will weaken if a company has

information asymmetry (Fosu *et al.*, 2016) or if companies pay more cash dividends to their shareholders (Fajaria and Isnalita, 2018).

Kouki and Said (2011) asserted that the effect of debt on company value has a third-order nonlinear form, and managerial ownership plays an important role as a determinant of this relationship. According to these authors, financial leverage transmits negative signals to investors for firms with low or high managerial ownership, creating an effect of enticement or expropriation by minority shareholders. The impact of financial leverage is much more evident in the case of moderate levels of managerial ownership, which demonstrates the role of the coupling of interests between managers and shareholders.

Based on a path analysis, financial leverage has been confirmed to have an indirect and positive impact on the value of a company through profitability (Pramesti *et al.*, 2021) and tax avoidance (Syura *et al.*, 2020). Using the Sobel test, Ilham *et al.* (2018), Suzulia and Saluy (2020) also confirmed that the firm's profitability increases company value when using financial leverage.

Several studies, specifically on Vietnam, considered the effect of financial leverage on firm value, but there are no consistent conclusions. For example, using a dataset from companies listed on the Ho Chi Minh Stock Exchange, Vo and Ellis (2017) found a negative relationship between financial leverage and firm value. In contrast, Vo (2017) reported a positive impact of financial leverage on firm value. In a more recent study, Tran (2019) focused on both listed companies on the Hanoi and Ho Chi Minh Stock Exchanges to examine whether capital structure decisions in low-value firms have an influence compared to those in high-value firms. The findings confirmed the positive impact of leverage on firm value when it is low and the negative one when it is high. Similarly, Dang and Do (2011) investigated the effect of leverage on firm value and found that this effect differs across industries.

2.2 Research gap and hypothesis development

Based on the theoretical overview and empirical evidence, there are three approaches for evaluating the impact of financial leverage on company value. The first is an independent effect in linear or nonlinear form. The second is the effect of other factors that act as mediating variables. The final one is the effect moderated by other factors. From a financial management perspective, with the general goal of maximizing firm value, company managers cannot make independent decisions on using financial leverage. However, they must consider internal and external factors, including financial and non-financial aspects. Accordingly, the second and third approaches ensure rigorous scientific value and provide valuable and solid information for financial management practices in companies.

Approaching ownership structures in companies may lead to the appearance of share ownership by the state. Accordingly, the state plays the role of both the owner of the company and the issuer of policies that directly or indirectly influence the companies' financial management decisions. Borisova *et al.* (2015) argued that the state ownership share is both an opportunity and a challenge for the cost of debt. This cost will be lower because the state

implicitly guarantees the company's borrowings and the risk of default can be reduced, especially when the government can bail the company out if it falls into financial distress. Conversely, the cost of debt can increase through investment distortions originating from state ownership. This is due to the increased moral hazard of managers, inefficient supervision, or imposition of political and social goals that reduce a firm's profitability. Thus, state ownership moderates the impact of financial leverage on company value; however, empirical studies have not verified or confirmed this role.

According to the agency theory proposed by Ross (1973) and Jensen and Meckling (1976), to bind the responsibility and control the behavior of managers in association to increase company value, shareholders can establish the company's financing policy to encourage increased use of debt. With a higher debt ratio, creditors will increase measures to monitor the company's operating and investing activities, and managers will have to focus on balancing cash flows to meet creditors' and owners' expectations, restricting the personal activities of managers, thus increasing the company's value. Based on the above arguments, the following hypotheses are proposed for listed non-financial companies in Vietnam:

H1: Financial leverage has a positive effect on firm value.

H2: State ownership decreasingly moderates the positive impact of financial leverage on firm value.

3. Research model and methodology

3.1 Research model

According to the theoretical overview, empirical evidence, and research hypotheses, we set up a research model to test and evaluate the moderating role of state ownership on the impact of financial leverage on firm value in Vietnamese listed non-financial companies. The dependent variable is the firm value represented by Tobin's Q ratio (TBQ) and market-to-book price ratio (MB). The explanatory variables include financial leverage (LEV), state ownership (SO), and the interaction between financial leverage and state ownership (LEV.SO). To further increase the model's fit when estimating, we added control variables (CONTROL) including firm size (SIZE), tangible fixed assets (TANG), firm age (FAGE), and profitability (PROF). Table 1 presents how to measure the variables in the research model. Two specific regression equations were developed as follows:

$$TBQ_{i,t} = \mu + \beta_1.LEV_{i,t} + \beta_2.SO_{i,t} + \beta_3.(LEV.SO)_{i,t} + \beta_j.CONTROL_{j,i,t} + \varepsilon_{i,t}, \qquad (1)$$

$$MB_{i,t} = \mu + \beta_1.LEV_{i,t} + \beta_2.SO_{i,t} + \beta_3.(LEV.SO)_{i,t} + \beta_j.CONTROL_{j,i,t} + \varepsilon_{i,t} \qquad (2)$$

where μ is a constant; ε is the error; β is the regression coefficient of the explanatory variables; j represents the order of the control variable; i and t represent the company and year, respectively.

Table 1. Measurement method of variables

Variable	Symbol	Measurement method	Empirical studies
Firm value	TBQ	Tobin's Q ratio: $\dfrac{\text{Book value of debt} + \text{Market value of equity}}{\text{Book value of total assets}}$	Appiah *et al.* (2020), Ibrahim and Isiaka (2020), Kouki and Said (2011), Aggarwal *et al.* (2008)
	MB	Market-to-book ratio: $\dfrac{\text{Price per share}}{\text{Book value per share}}$	Zimny (2020), Musallam (2020), Suzulia and Saluy (2020), Appiah *et al.* (2020)
Financial leverage	LEV	Debt ratio: $\dfrac{\text{Total debt}}{\text{Total assets}}$	Appiah *et al.* (2020), Kouki and Said (2011), Aggarwal *et al.* (2008)
State ownership	SO	Dummy variable, the company with shares owned by the state receives the value 1; otherwise, it takes the value 0.	Musallam (2020), Borisova *et al.* (2015)
Firm size	SIZE	Natural logarithm of net sales	
Tangible fixed assets	TANG	The proportion of tangible fixed assets in total assets: $\dfrac{\text{Tangible fixed assets}}{\text{Total assets}}$	Appiah *et al.* (2020), Kouki and Said (2011), Aggarwal *et al.* (2008)
Firm age	FAGE	Natural logarithm of the number of operation years (calculated from the year of operation in the form of a joint stock company).	Ibrahim and Isiaka (2020), Kouki and Said (2011)
Profitability	PROF	Return on investment: $\dfrac{\text{Earnings before interest and taxes}}{\text{Average total assets}}$	Appiah *et al.* (2020), Ibrahim and Isiaka (2020), Zimny (2020), Kouki and Said (2011)

Source: Authors' compilation

3.2 Research sample and data

The data used in this study were obtained from FiinPro annual files. This file contains the financial items, market information, and state ownership of Vietnamese listed companies by the end of 2021. The sample includes 481 non-financial companies listed in Vietnam from 2015 to 2021, as determined by the purposive sampling method. We used four criteria: (i) companies in the financial sector (banking, insurance, and securities) were excluded; (ii) the collected data must meet completeness for all variables associated with each company during the study period; (iii) the consistency of the financial statements according to Circular No. 200/TT-BTC of the Ministry of Finance on the corporate accounting regime, effective since 2015; and (iv) companies under special control or

with negative equity were excluded from the sample. Secondary data were used based on the research models, including data from financial statements and business registration certificates of companies, and stock trading statistics of the Hanoi and Ho Chi Minh Stock Exchanges.

3.3 Estimation method

With panel data of 3,367 observations from 481 companies over seven years from 2015 to 2021, the time range is short, and the number of observations is relatively large. In addition, companies' financial leverage and firm value are interrelated, leading to an endogeneity problem in the research model (Ibrahim and Isiaka, 2020). Moreover, omitted variables and autocorrelation in panel data need to be conducted to increase the efficiency of the model and test for heteroskedasticity. The results of these tests are presented in Table 5. The Breusch-Pagan tests reveal the presence of heteroskedasticity. Similarly, the Ramsey tests show the presence of omitted variables. The results of the Wooldridge tests give information about autocorrelation in all regressions. To solve these problems, we used the system generalized method of moments (SGMM) model based on Blundell and Bond (1998). One of the advantages of SGMM is that exogenous variables in past periods or the dependent variable lag can be used as instrumental variables in the current period. Thus, SGMM provides an abundance of instrumental variables that help achieve the conditions of valid instruments and over-identification of estimators.

4. Results and discussion

4.1 Descriptive statistics and correlations

Table 2 provides the descriptive statistics of the variables. The market value of non-financial companies listed in Vietnam is high but lower than many empirical cases from previous studies on the relationship between financial leverage and firm value. Tobin's Q ratio and the market-to-book ratio averaged 1.108 and 1.163, respectively, while Appiah *et al.* (2020) found that Ghana-listed companies reached averages of 2.17 and 8.64, respectively. The Tobin's Q ratio of listed companies in Vietnam is lower than 1.3758 for the case of listed companies in France in the study of Kouki and Said (2011); meanwhile, the average value of financial leverage represented by the debt ratio is 0.474, which is close to the average of 0.4829 of listed firms in France. However, it is higher than the average level of enterprises in developed markets such as the United Kingdom, France, and Germany at 0.3449, 0.3999, and 0.3889, respectively (Aggarwal *et al.*, 2008), or the average of 0.29 of listed firms in Ghana (Appiah *et al.*, 2020).

We also checked the stationarity of the panel data using a panel unit root test. According to Table 2, the p-values from Levin, Lin, and Chu (2002) test for the variables TBQ, MB, LEV, PROF, SIZE, TANG, and FAGE are all less than 5%. The results show that the panel data series is stationary.

Table 2. Descriptive statistics and stationarity test

Variables	Observations	Mean	Standard deviation	Min.	Max.	Levin, Lin, and Chu test		
						Statistic	Prob.	Conclusion
TBQ	3,367	1.108	0.622	0.081	7.843	-39.766	0.000	Stationary
MB	3,367	1.163	1.031	0	18.092	-5.222	0.000	Stationary
LEV	3,367	0.474	0.222	0.004	0.969	-95.838	0.000	Stationary
PROF	3,367	0.093	0.088	-0.369	0.918	-60.983	0.000	Stationary
SIZE	3,367	5.795	0.760	0	8.283	-73.632	0.000	Stationary
TANG	3,367	0.215	0.206	0	0.956	-72.404	0.000	Stationary
FAGE	3,367	2.544	0.288	1.099	3.332	-110.104	0.000	Stationary

Source: Authors' calculation

Using the dummy variable SO in the research model, we analyzed the sample structure by state ownership for each year, as shown in Table 3. According to this table, the state gradually reduced capital ownership in non-financial companies listed in Vietnam from 2015 to 2021. The proportion of companies with state-owned shares accounted for 67.98% (equivalent to 327 companies) in the sample in 2015, then continuously decreased in the period 2015-2021, and by 2021, the proportion of this company group is still 53.64% (equivalent to 258 companies).

Table 3. Statistics on the number of companies by state ownership

State ownership	2015	2016	2017	2018	2019	2020	2021
Yes	327 (67.98%)	298 (61.95%)	292 (60.71%)	287 (59.67%)	277 (57.59%)	260 (54.05%)	258 (53.64%)
No	154 (32.02%)	183 (38.05%)	189 (39.29%)	194 (40.33%)	204 (42.41%)	221 (45.95%)	223 (46.36%)
Total	481	481	481	481	481	481	481

Source: Authors' calculation

The positive correlation coefficient between SO and LEV indicates that companies tend to use debt more when equity ownership by the state exists than when it is absent (Table 4). LEV is negatively correlated with TBQ and MB, indicating a negative relationship between the volatility of firm value and financial leverage. In addition, the correlation coefficients between the explanatory variables are low (less than 0.8); therefore, the model has no serious multicollinearity problems (Hair *et al.*, 2006; Gujarati, 2008).

Table 4. Correlation coefficient matrix

	TBQ	MB	LEV	PROF	SIZE	TANG	FAGE	SO
TBQ	1							
MB	0.886***	1						
LEV	-0.146***	-0.100***	1					
PROF	0.404***	0.351***	-0.292***	1				
SIZE	0.106***	0.132***	0.357***	0.183***	1			
TANG	0.115***	0.090***	-0.054***	0.079***	0.055***	1		
FAGE	0.084***	0.104***	-0.060***	-0.032*	-0.072***	-0.066***	1	
SO	0.106***	0.051***	0.060***	0.051***	0.001^{ns}	0.115***	-0.059***	1

Notes: * and *** denote statistical significance at 10% and 1%, respectively; ns denotes not significant.

Source: Authors' calculation

4.2 The impact of leverage, state ownership on firm value

Table 5 provides the SGMM estimates for our sample, where the dependent variables are TBQ and MB. The p-values determined from the AR(2) test for TBQ and MB are 0.195 and 0.791, respectively, which are greater than 0.05, indicating that the model does not have a second-order series correlation. The p-values from the Hansen test are 0.727 and 0.064, respectively, which are greater than 0.05, showing that the instrumental variable used is appropriate.

Table 5. Impact of financial leverage, state ownership on firm value – SGMM estimators with robust standard error

Variables	TBQ		MB	
	Coef.	Std.Err	Coef.	Std.Err
LEV	2.622**	1.077	6.138**	2.701
SO	2.426***	0.826	6.118***	2.355
LEV.SO	-5.095***	1.737	-12.969***	4.929
PROF	-0.691**	0.35	-3.515***	1.038
SIZE	-0.007^{ns}	0.046	0.033^{ns}	0.134
TANG	-0.005^{ns}	0.098	-0.322^{ns}	0.309
FAGE	0.146**	0.059	0.131^{ns}	0.212
TBQ (-1)	0.821***	0.089		
MB (-1)			1.096***	0.164
Constant	-2.96***	1.016	-1.259***	0.343
Observations	2,886		2,886	
AR(2) test	0.195		0.791	

Table 5. Impact of financial leverage, state ownership on firm value – SGMM estimators with robust standard error *(continued)*

Variables	TBQ		MB	
	Coef.	**Std.Err**	**Coef.**	**Std.Err**
Hansen test	0.727		0.064	
Breusch-Pagan test	Chi^2 (1) =969.33***		Chi2 (1) = 329.65***	
Ramsey test	F(3, 3357) = 99.20***		F(3, 3357) = 65.24***	
Wooldridge test for autocorrelation	F(1, 480) = 95.788***		F(1, 480) = 38.555***	

Notes: *, **, and *** indicate statistical significance at 10%, 5%, and 1%, respectively; ns denotes not significant.

Source: Authors' calculation

All leverage coefficients are positive and significant at less than 5% for each firm value measure, indicating that firm value increases as financial leverage increases for the non-financial companies listed in Vietnam. According to this result, the first hypothesis (H1) is accepted. Our finding supports the Modigliani-Miller theory with taxes and the agency theory, and it is consistent with the empirical evidence confirmed by Cheng and Tzeng (2011), Jihadi *et al.* (2021), Margono and Gantino (2021), Ibrahim and Isiaka (2021), and Radja and Artini (2020). From a financial management perspective, this positive relationship between financial leverage and firm value can be explained by two reasons. First, using debt to form financial leverage creates a tool to control the actions and decisions of managers to protect shareholders' interests (Jensen and Meckling, 1976). Second, companies using debt derive tax savings from interest expenses (Myers, 1977), contributing to an increase in firm value.

Table 5 also displays the estimates for our sample, containing the SO dummy and the interaction LEV.SO, to examine any differences in sensitivity to LEV between non-state and state ownership in terms of firm value. The LEV.SO coefficient is negative, implying that state ownership reduces the positive impact of financial leverage on firm value. In terms of magnitude, we find the absolute value of the coefficient of the interaction term LEV.SO is higher than that of LEV. These results indicate that the positive effect of financial leverage becomes negative when leverage interacts with the SO. In other words, financial leverage harms the firm value of state-owned enterprises. This may be explained by state ownership capital in companies, which makes managers more cautious when making financial decisions, whereby they choose a low level of financial leverage, leading to limited profitability and value-adding opportunities for companies. In addition, in state-owned companies, political connections can influence a company's policies and activities to achieve socioeconomic goals but negatively affect financial performance. Tihanyi *et al.* (2019) found evidence that state ownership and political connections profoundly influence company strategies, such as financial leverage, the level of research and development investment, and globalization. Eforis (2018) argued that corporate governance mechanisms will not be effective if political interference is still present in state-owned enterprises. More broadly, this estimation result also shows financial inefficiency in using financial leverage in state-owned companies compared with non-state-owned ones. Qi *et al.* (2000) argued that the state and its representatives do not have

sufficient resources and expertise to supervise and discipline the company's management. These findings unify the reality of the changing trend of state ownership in the non-financial companies listed in Vietnam, as shown in Table 3.

4.3 Robustness test

We have shown that our results are robust to the alternative regression method and dependent variable measurements. To further test the robustness of the estimates, we first use MB instead of TBQ, as presented in Tables 5 and 6. We find a significant and positive relationship between financial leverage and firm value as well as the interaction coefficient, which supports our second hypothesis (H2) by providing evidence that the value of non-state-owned firms is more sensitive to financial leverage than state-owned firms.

We also do estimations using OLS regression with robustness to address the problems of heteroskedasticity and autocorrelation. Table 6 presents the OLS estimation results. All financial leverage and state ownership coefficients are positive and significant, while state ownership decreasingly moderates the effect of financial leverage on firm value. These findings are consistent with the SGMM estimates in Table 5.

Table 6. Effect of financial leverage on firm value using an alternative estimation method

Variables	TBQ		MB	
	Coef.	Std.Err	Coef.	Std.Err
LEV	0.639***	0.194	0.283***	0.061
SO	0.668***	0.094	0.446***	0.061
LEV.SO	-1.261***	0.207	-0.711***	0.101
PROF	3.671***	0.339	2.55***	0.238
SIZE	0.105***	0.034	0.041**	0.020
TANG	0.3***	0.075	0.226***	0.048
FAGE	0.449***	0.069	0.231***	0.052
Constant	-1.331***	0.247	-0.197^{ns}	0.178
Observations	3,367		3,367	

Notes: ** and *** indicate statistical significance at 5% and 1%, respectively; ns denotes not significant.

Source: Authors' calculation

5. Conclusion

This study tests and evaluates the moderating role of state ownership on the impact of financial leverage on firm value for 481 non-financial companies listed in Vietnam from 2015 to 2021. The findings conclude that financial leverage positively affects firm value; however, this relationship becomes weaker when being moderated by state ownership. Accordingly, companies should pay attention to the tax environment when making debt financing decisions

and strengthen monitoring activities to ensure that managers choose an appropriate level of financial leverage. In addition, for companies with shares owned by the state, the government should minimize political interference in using financial leverage and focus on evaluating financial performance instead. The results also recommend accelerating state capital equitization and divestment processes in Vietnamese listed non-financial companies.

The research results provide helpful information for the financial management of Vietnamese companies and empirical evidence to develop theories that explain the decision-making process regarding the use of financial leverage associated with maximizing firm value. However, to add more scientific and practical value, further studies can be conducted to analyze the relationship between political connections and state ownership in companies, assessing the advantages and disadvantages of this relationship. Future investigations can assess the role of state ownership in companies operating in different sectors, especially in those that produce public goods and provide public services.

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