STATE OWNERSHIP AND COSTS OF DEBT FINANCING IN SMEs: EVIDENCE OF THE AGENCY MECHANISM

PhD. Le Hang My Hanh* - PhD. Le Son Dai* - PhD. Nguyen Thi Minh Ha*
Assoc.Prof.PhD. Dao Thi Huong - PhD. Nguyen Ngoc Huan*****

Abstract: ***This paper examines how state ownership influences SMEs' costs of debt financing in Vietnam. Data is collected from the National Statistics Office's database. The research sample contains 5,450 observations. Using both fixed and random effect regression techniques, we find that state ownership positively affects SMEs' costs of debt. This effect is stronger in smaller firms. These can be explained that SMEs are less effective in helping the government conduct socio-economic policies due their limited resources. Moreover, in Vietnam, state ownership in most SMEs belong to the local government which has limited capability to support them. These characteristics make SMEs receive less soft budget constraint. Consequently, the agency problem arising from state ownership may make SMEs face high costs of debt financing. Our paper has two major contributions to the literature are as follows. First, while prior studies support the soft budget constraint for listed firms, we find supporting evidence for the agency problem mechanism in the context of SMEs. Second, the favorable treatment that the government provides firms with state ownership is determined by firm size.***

• Keywords: *state ownership; debt financing; SMEs; Vietnam.*

JEL codes: G32; G34.

Date of receipt: 26th Feb., 2026
Date of delivery revision: 26th Mar., 2026
Date of receipt revision: 05th Apr., 2026
Date of approval: 29th Apr., 2026
DOI: https://doi.org/10.71374/jfar.v26.i3.07

1. Introduction

Debt is one of the most important sources of corporate capital since firms commonly use debt to finance their expansions, investments and daily operations. However, debt financing entails interest and other costs which signfinifcantly determine firm performance. In practice, costs of debt are influenced by both firms' financial and non-financial characteristics. Prior research shows that high state ownership reduces costs of debt financing since the government provides these firms with state ownership soft budget constraint. Nevertheless, this relationship may be different in the context of small and medium sized enterprises (SMEs) in Vietnam due to the following reasons. *First*, SMEs are less important than listed firms in supporting government policies since listed firms are much larger than SMEs. This reduces the government's incentives to give SMEs soft budget constraint. *Second*, while most listed firms with state ownership formerly have 100% of shares held by the central government, most SMEs with state ownership formerly have 100% of shares held by the local government. The local government is less effective in asking state-controlled commercial banks to support SMEs although they have state ownership. *Third*, state ownership makes SMEs face a severe agency problem. The government may take advantage of their voting rights to drive SMEs to archieve social objectives which support its policy implementation. In some cases, the government may exchange economic objectives for social ones and even sacrifice economic objectives to archieve social ones. Consequently, it is difficult to measure managers' performance and they have more chances for expropriation of shareholders.. In other words, high state ownership increases agency costs and thus leads to high costs of debt financing. This paper examines how state ownership influences Vietnamese SMEs' costs of debt financing in order to consider whether the soft budget constraint mechanism or the agency problem mechanism is more effective in SMEs' costs of debt.

In our research model, the dependent variable is costs of debt and the exploratory variable is state ownership. Control variables consist of firm profitability, asset growth, asset tangibility and firm size. Data is collected from the National Statistics Office's database. SMEs are selected subject to the Decree 39/2018/NĐ-CP. The final sample contains 5,450 observations. Using both fixed and random effect regression techniques, we document that state ownership has a positive association with SMEs' costs of debt. This finding indicates that the

** Foreign Trade University, Ho Chi Minh City Branch, Ho Chi Minh City; email: lehangmyhanh.hcmc@ftu.edu.vn; sondaile.hcmc@ftu.edu.vn; nguyenthiminhha.hcmc@ftu.edu.vn*
*** Thuyloi University, Hanoi; email: huongdao@tlu.edu.vn*
**** Ho Chi Minh City University of Foreign Languages and Information Technology, Ho Chi Minh City; email: huannn@huflit.edu.vn*

agency problem mechanism is stronger than the soft budget constraint mechanism in determining SMEs' costs of debt. In addition, we split the sample into two parts of larger SMEs and smaller SMEs. Regression results for the two sub-samples illustrate that the positive impact of state ownership is more pronounced in smaller SMEs. This confirms that smaller SMEs are less important to government policies; therefore, they are less likely to receive soft budget constraint and face higher costs of debt.

Our paper has two major contributions to the literature. *First*, while previous studies support the soft budget constraint mechanism with listed firms, our paper documents supporting evidence for the agency problem mechanism in the context of SMEs. *Second*, the favorable treatment that the government gives firms with state ownership is not only determined by the proportion of shares it holds but also firm size. The paper's structure is as follows. Section 1 presents research motivations, summarizes research methods and reports key findings. Section 2 critically reviews prior studies and presents arguments to develop hypotheses. Section 3 describes how we design the model and define variables. Section 4 presents descriptive statistics and, estimation results and further analysis. Section 5 includes main conclusions and implications.

2. Literature review and hypothesis development

2.1. Literature review

In the process of development and expansion, firms need to raise external funds since internal funds are not enough to finance their investment projects. Debt financing is one of the two main channels through which firms obtain external funds. Although debt financing does not dilute shareholders' ownership, firms need to consider costs of debt financing thoroughly. High costs of debt financing erode firm profitability and thus destroy firm value. Therefore, many previous studies concentrate on what determines costs of debt and ownership structure is documented as an importatnt determinant. Jabbouri and Naili (2019) find that high ownership concentration results in high costs of debt while Lin, Ma, Malatesta, and Xuan (2011) find an opposite relationship. Furthermore, Lugo (2019) shows that the relationship between insider ownership and costs of debt are not completely positive or negative; it is an inverse U-shaped instead. Besides, Tran (2021) documents that foreign ownership helps firms reduce their costs of debt by strengthening corporate governance. Moreover, Steijvers and Voordeckers (2009) document a positive correlation between family ownership and costs of debt.

State ownership is a special form ownership since the government is both a shareholder and a ruler. Interestingly, the extant literature shows that state ownership may affect costs of debt through two opposite mechanisms namely agency problem and soft budget constraint. On one hand, unlike a normal shareholders who mostly follow economic goals, the government may follow both economic and social goals. Firms with state ownership may be considered as an effective tool that the government use to implement socio-economic policies. When the government follows social goals, economic efficiency tends to be sacrificed. Corporate managers may exploit these social goals to increase their expropriation of firm value. Moreover, government officials who are in charge of state ownership are only nominated or hired by the government. This separation of control and ownership also leads to another serious agency problem and makes firms face high risk of default. Creditors tend to charge them with higher interest rates and relevant costs when lending them money.

On the other hand, state ownership brings firms favorable treatments from the government. State ownership is considered as strategic capital that creates a strong connection between firms and the government. One of the most important supports that they receive from the government is better access to external financing. The government may support them through the policy making process or state-controlled financial institutions (Cong, Gao, Ponticelli, & Yang, 2018). Consequently, firms with higher state ownership incur lower costs when they use debt financing. This mechanism is defined as soft budget constraint.

2.2. Hypothesis development

Since the two mechanisms including agency problem and soft budget constraint are opposite, the impact of state ownership on interest expenses relies on which mechanism is more effective. If the agency problem mechanism is more pronounced, state ownership has a positive impact of costs of debt. If the soft budget constraint mechanism is dominant, state ownership is negatively associated with costs of debt. Several studies show supporting evidence for the soft budget constraint mechanism. Investigating investigate how state ownership influences privatized interest expenses, Borisova and Megginson (2011) find that the credit spread increases by 0.75 basis point when state ownership decreases by 1%. Shailer and Wang (2015) also show that state-controlled firms have lower interest expenses than firms under private control. Moreover, Le (2020) documents that firms incur higher costs of debt financing when their state ownership becomes zero.

Although several prior studies consistently show a negative impact of state ownership on costs of debt, they only focus on listed firms which play an important role in government policies due to their large size. We

argue that the characteristics of SMEs may makes the soft budget constraint mechanism less effective due to two reasons. First, SMEs have smaller contributions to implementing government policies since their resources are limited. The goverment may request a large state-controlled firm to establish manufacturing factory in order to create jobs and promote economic growth in a remote area. Although this invesment project is not economically efficient, it brings many opportunities for people to improve their living standards in the area. However, a small firm cannot have this investment since it does not have enough resources. Consequently, the government has lower incentives to provide SMEs with preferences and privileges, especially soft budget constraint. Second, as a result of the decentralization policy, most SMEs with state ownership formerly have 100% of shares held by the local government. However, the local government is less capable of providing them with soft budget constraint since the four largest banks in Vietnam are controlled by the central government. Ge, Liu, Qiao, and Shen (2020) also realize that firms controlled by the local government incur higher costs than those controlled by the central government when issuing bonds. When the soft budget constraint mechanism becomes less effective in SMEs' costs of debt, the agency problem mechanism may become dominant. In other words, we hypothesize that state ownership positively influences SMEs' costs of debt.

3. Research design

In line with Tran (2021), we use cost of debt (Cost_debt) as the dependent variable. It is measured by interest expenses divided by total liabilities. The exploratory variable is state ownership (Sta_own) computed by the proportion of shares held by the government. Control variables are firm profitability (Firm_profit), asset growth (Asset_growth), asset tangibility (Asset_tangibility) and firm size (Firm_size). Firm profitability is measured by EBIT divided by total assets. Asset growth is the growth of total assets. Asset tangibility is the ratio of tangible assets to total assets. Firm size is the the natural logarithm of total assets.

$$Cost_debt_{i,t} = \alpha + \beta_1 Sta_own_{i,t} + \beta_2 Firm_profit_{i,t} + \beta_2 Asset_growth_{i,t} + \beta_3 Asset_tangibility_{i,t} + \beta_4 Firm_size_{i,t} + \varepsilon \quad (1)$$

Subscripts i and t represent firm i in year t respectively. Coefficient b1 reflects the relationship between state ownership and SMEs costs of debt. In addition, firm profitability may have a negative effect on interest expenses since profitable firms have lower default risk. Tran (2021) also finds supporting evidence for a negative impact of firm profitability on costs of debt. Asset growth reflects investment opportunities which are a guarantee for firms capability to pay off their liabilities. Therefore, their costs of debt are lower. Furthermore, firms with more tangible fixed assets which can be used as collaterals have better access to credit. Larger firms tend to incur lower costs of debt since they have better reputation. As a result, control variables have the following expected signs: Firm_profit (-), Asset_growth (-), Asset_tangibility (-) and Firm_size (-).

4. Data

We extract data for SMEs from the National Statistics Office's database. SMEs are defined subject to Decree 39/2018/NĐ-CP which provides guidelines for the SMEs supporting law. We eliminate inappropriate observations based on the following criteria: (1) Observations with missing information, (2) Observations without state ownership, (3) Observations from financial firms. Finally, we have a sample of 5,450 observations. Besides, we use the winsorization technique at the level of 3% to prevent extreme values from driving our regression findings[1].

Table 1 shows a summary of data. Panel A shows that SMEs' costs of debt (interest expenses over total liabilities) have a wide range of fluctuations from 0.000 to 0.339. Its mean and standard deviation are 0.041 and 0.079 respectively. State ownership also has a strong variation. The lowest percentage is 2% while the highest percentage is 98%. On average, 43.5% of SMEs' equity belong to the government. The descriptive statistics of control variables imply that they are suitable for regression analysis since there are not extreme values. Moreover, Panel B reports the annual number of SMEs. It tends to increase from 2013 to 2017 and then decline in the following years. This number mainly relies on the survey coverage. Panel C reflects the industry distribution when firms are classified in accordance with the Vietnamese industry classification standard. Manufacturing is the largest with 1,910 observations. Next, Wholesaling and Retailing contributes 1,105 observations and Construction has 1,088 observations. The smallest is Minerals with only 124 firm-years. This unbalanced distribution is common in many prior studies; therefore, using dummies to control industry effects are necessary.

Table 1. Sample description

Panel A. Firm-specific data

Variables	N	Mean	SD	Min	Max
Cost_debt	5,450	0.041	0.079	0.000	0.339
Sta_own	5,450	0.433	0.265	0.020	0.980
Firm_profit	5,450	0.055	0.176	-0.355	0.536
Asset_growth	5,450	0.057	0.270	-0.398	0.949
Asset_tangibility	5,450	0.351	0.292	0.000	0.964
Firm_size	5,450	10.768	1.308	8.230	13.588

Panel B. Annual number of firms					
Year	**N**	**Year**	**N**	**Year**	**N**
2013	285	2016	904	2019	765
2014	443	2017	1,121	2020	619
2015	366	2018	947		
Panel C. Industry Distribution					
Industry	**N**	**Percent**	**Industry**	**N**	**Percent**
Agriculture	181	3.32	Wholesaling and Retailing	1,105	20.28
Minerals	124	2.28	Transportation and Communication	464	8.51
Manufacturing	1,910	35.05	Services	578	10.61
Construction	1,088	19.96			

5. Empirical results

5.1. The effect of state ownership on SMEs' costs of debt

Table 2 presents regression results to analyze how state ownership affects SMEs' costs of debt. We find that the coefficient of state ownership is significantly positive across both fixed effects and random effects regression approaches. Moreover, our robustness checks which replace state ownership by the state-owned enterprise (SOE) dummy also shows a consistent result. In other words, state ownership positively influences SMEs' costs of debt. This finding implies that the agency problem mechanism is more effective in SMEs' costs of debt than the soft budget constraint. It is contrary to the negative relationship between state ownership and costs of debt shown by Le (2020); Shailer and Wang (2015) in the context of listed firms. However, it is consistent with the characteristics of SMEs and the institutional environment in Vietnam. SMEs have limited resources to help the goverment implement their socio-economic development policies; therefore, the government have lower incentives to grant them favorable treatments, especially soft budget constraint. Besides, in Vietnam, state ownership in SMEs is mainly held by the local government. The local government has limited resources to support them. The local government cannot request the state-controlled banks to support SMEs with state ownership because these commercial banks are controlled by the central government. Ge et al. (2020) shows that the local government is less effective than the central government in helping firms reduce interest expenses when they issue bonds. Meanwhile, SMEs with state ownership still face a serious agency problem caused by state ownership. Beside the normal conflict of interest between managers and owners, state ownership increases corporate managers' appropriation incentives. Since the government tend to pursue both economic and social objectives, SMEs find many difficulties to evaluate corporate mangers' performance effectively. This is an opportunity for corporate managers to extract firm value. For example, a state-owned firm manufacturing sugar is willing to sell 1 kilogram of sugar at 30,000 VND in the normal economic condition. However, due to an economic crisis, the local government has to support people to reduce their living expenses. Consequently, the local government requests the firm's managers to sell sugar at only 20,000 VND per kilogram and and asks them to sponsor some public services. These social activities help politicians and officials maintain their positions and even be promoted. However, it is difficult to show exactly how these social activities reduce the firm's profitability and whether a decrease in firm profitability is caused by its managers' bad performance or social activities. Furthermore, government officials who are in charge of state ownership are not owners. They are likely to sacrifice the public benefits to serve their own interest. Therefore, SMEs with state owner ship face this additional agency problem. When the soft budget constraint is limited, the agency problem becomes dominant and thus SMEs with state ownership have to incur high interest expenses.

Table 2. The effect of state ownership on SMEs' costs of debt

The dependent vairable is costs of debt. Sta_own is state ownership. Soe_dum is a dummy for state-owned firms. Firm_profit is firm profitability. Asset_growth is the growth of total assets. Asset_tangibility is asset tangibility. Firm_size is firm size.

Variables	Baseline model		Robustness checks with SOE dummy	
	Fixed effects	Random effects	Fixed effects	Random effects
Intercept	0.449***	0.164***	0.450***	0.165***
	(8.27)	(15.99)	(8.41)	(15.94)
Sta_own	0.046***	0.009**		
	(3.48)	(2.35)		
Soe_dum			0.031***	0.004*
			(4.99)	(1.92)
Firm_profit	-0.278***	-0.253***	-0.277***	-0.253***
	(-21.62)	(-22.38)	(-21.45)	(-22.37)
Asset_growth	0.009*	-0.007**	0.008*	-0.007**
	(1.85)	(-2.27)	(1.83)	(-2.44)
Asset_tangibility	-0.037***	-0.027***	-0.036***	-0.026***
	(-7.32)	(-7.21)	(-7.20)	(-7.14)
Firm_size	-0.037***	-0.012***	-0.037***	-0.012***
	(-7.39)	(-14.34)	(-7.39)	(-14.39)
Industry dummies	No	Yes	No	Yes
Clustered by firms	Yes	Yes	Yes	Yes
F statistics	106.37***		109.30***	
Wald chi-squared		645.83***		645.24***
Number of observations	5,450	5,450	5,450	5,450

*Note: The dependent variable is cost of debt in year t (Cost_debt). t-statistics are in parentheses. * is 10% of significance. ** is 5% of significance. *** is 1% of significance.*

Moreover, we document that firm profitability is negatively associated with costs of debt. Highly profitable firms are more capable of paying off their debts. Therefore, creditors tend to charge the with lower interest rates and other related costs. Asset tangibility also negatively affects costs of debt. Firms with more tangible assets have more collaterals and thus have lower default risk. Besides, we find a negative effect

of firm size on costs of debt. Larger firms have better reputation and thus they can use debt with lower costs.

5.2. The effect of state ownership on SMEs' costs of debt by firm size

One of the possible reasons for the positive effect of state ownership on SMEs' costs of debt is firm size. SMEs have limited resources which make them less important in the government socio-economic policies and thus they are less likely to have soft budget constraint. Accordingly, we extend this line of argument by investigating how firm size determines the association between state ownership and SMEs' costs of debt. At first, the year median is utilized to classify SMEs into two groups including larger firms and smaller firms. An observation belongs to the group of larger firms if its firm size is equal to or greater than the year median. An observation belongs to the group of smaller firms if its firm size is smaller than the year median. Then we estimate Equation (1) for the two groups.

Table 3. The role of firm size

The dependent vairable is costs of debt. Sta_own is state ownership. Soe_dum is a dummy for state-owned firms. Firm_profit is firm profitability. Asset_growth is the growth of total assets. Asset_tangibility is asset tangibility. Firm_size is firm size.

Variables	Fixed effects		Random effects	
	Smaller firms	Larger firms	Smaller firms	Larger firms
Intercept	0.502***	0.511***	0.192***	0.252***
	(4.52)	(5.43)	(8.06)	(13.71)
Sta_own	0.065**	0.037***	0.020***	-0.003
	(2.45)	(2.89)	(3.32)	(-0.64)
Firm_profit	-0.273***	-0.308***	-0.250***	-0.264***
	(-16.10)	(-14.75)	(-17.99)	(-14.09)
Asset_growth	0.015*	0.006	-0.001	-0.011***
	(1.72)	(0.96)	(-0.24)	(-3.05)
Asset_tangibility	-0.060***	-0.016***	-0.040***	-0.010**
	(-6.73)	(-2.97)	(-6.61)	(-2.33)
Firm_size	-0.046***	-0.040***	-0.016***	-0.019***
	(-3.95)	(-5.02)	(-6.66)	(-12.77)
Industry dummies	No	No	Yes	Yes
Clustered by firms	Yes	Yes	Yes	Yes
F statistics	53.77***	59.75***		
Wald chi-squared			377.08***	347.91***
Number of observations	2,729	2,721	2,729	2,721

*Note: The dependent variable is cost of debt in year t (Cost_debt). t-statistics are in parentheses. * is 10% of significance. ** is 5% of significance. *** is 1% of significance.*

Table 3 shows estimation results for the two sub-samples. It is clear that the coefficient of state ownership for the smaller firms is economically and statistically greater than that for the larger firms. This indicates that the negative effect of state ownership on SMEs' interest expenses is stronger when their firm size is smaller. Our finding confirms that smaller firms are less important in supporting the government conduct their socio-economic policies. Therefore, the soft budget constraint channel is weaker while the agency channel is stronger.

Conclusion

Prior studies consistently show that state ownership makes listed firms incur higher costs of debt. We postulate that SMEs' characteristics may make this effect turn to be opposite. SMEs have limited resources; therefore, they are less important in backing the government to implement their socio-economic policies. Moreover, in Vietnam, state ownership in most SMEs belong to the local government which has limited capability to support them. These characteristics make SMEs receive less soft budget constraint. Consequently, the agency problem arising from state ownership may make SMEs face high costs of debt financing. Using a sample of 5,450 observations from SMEs in Vietnam, we document that state ownership is positively correlated with SMEs' costs of debt. This effect is stronger in smaller firms. These understandings imply that privatization of 100% state-owned SMEs is an appropriate policy and the government should no longer hold shares of SMEs. In addition, SMEs with state ownership should improve their corporate governance to restrict the agency problem that may arise from state ownership. A stronger corporate governance mechanism helps them reduce costs of debt financing and thus improve their financial performance. They can strengthening their corporate governance with the following measures: (1) Increasing the board independence by recruting capable independent directors; (2) Ensuring high levels of transparency and information disclosure; (3) Improving internal controls and risk management; (4) Reducing state ownership as much as possible. Furthermore, investors should consider firm size when valuing firms with state ownership since firm size determines the soft budget constraint.

Acknowledgment: *This research is funded by Foreign Trade University under research program number FTURP01-2023-01*

References:

Borisova, G., & Megginson, W. L. (2011). Does Government Ownership Affect the Cost of Debt? Evidence from Privatization. The Review of Financial Studies, 24(8), 2693-2737. doi:10.1093/rfs/hhq154

Cong, L. W., Gao, H., Ponticelli, J., & Yang, X. (2018). Credit allocation under economic stimulus: Evidence from China. Buffett Institute Global Poverty Research Lab Working Paper(17-108).

Ge, Y., Liu, Y., Qiao, Z., & Shen, Z. (2020). State ownership and the cost of debt: Evidence from corporate bond issuances in China. Research in International Business and Finance, 52, 101164. doi:https://doi.org/10.1016/j.ribaf.2019.101164

Jabbouri, I., & Naili, M. (2019). Does ownership concentration affect cost of debt? Evidence from an emerging market. Review of Behavioral Finance, 12(3), 282-296. doi:10.1108/RBF-10-2018-0106

Le, B. (2020). The impact of government ownership on the cost of debt and valuation of Vietnamese listed companies. Pacific Accounting Review, 32(2), 255-270. doi:10.1108/PAR-07-2019-0083

Lin, C., Ma, Y., Malatesta, P., & Xuan, Y. (2011). Ownership structure and the cost of corporate borrowing. Journal of Financial Economics, 100(1), 1-23. doi:http://dx.doi.org/10.1016/j.jfineco.2010.10.012

Lugo, S. (2019). Insider ownership and the cost of debt capital: Evidence from bank loans. International Review of Financial Analysis, 63, 357-368. doi:https://doi.org/10.1016/j.irfa.2016.12.007

Shailer, G., & Wang, K. (2015). Government ownership and the cost of debt for Chinese listed corporations. Emerging Markets Review, 22(0), 1-17. doi:http://dx.doi.org/10.1016/j.ememar.2014.11.002

Steijvers, T., & Voordeckers, W. (2009). Private Family Ownership and the Agency Costs of Debt. Family Business Review, 22(4), 333-346. doi:10.1177/0894486509338291

Tran, Q. T. (2021). Foreign ownership and cost of debt financing: evidence from an emerging market. International Journal of Emerging Markets, 17(9), 2278-2289. doi:10.1108/IJOEM-09-2019-0750