

THE IMPACT OF FOREIGN OWNERSHIP ON PROFITABILITY OF VIETNAMESE FIRMS LISTED ON HO CHI MINH STOCK EXCHANGE

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ABSTRACT

The study examines the effect of foreign ownership on firm profitability in the Vietnamese context by using panel data of 161 listed firms on Ho Chi Minh Stock Exchange during the period of 2007 to 2014. This paper employs pooled OLS model, FEM and REM to investigate the relationship between foreign ownership and firm profitability. The study finds that foreign ownership has U-shaped relationship with firm profitability. Empirical results reveal that firm profitability declines with an increase of foreign ownership up to about 25.7% and when foreign ownership goes beyond this level, profitability increases. The results indicate that although foreign ownership may associates with low profitability at first, it would enhance firm profitability at a certain level.

Key Words: Foreign ownership, firm profitability, Vietnam.

1. Introduction

After Doi Moi programme in 1986 which aims to transfer the central planned economy to a market economy, the economy of Vietnam has achieved impressive performance and attracted world attention. Besides, there was an increase in foreign ownership in Vietnam's economy as a result of the privatization process of state owned enterprises launched in 1992. In recent years, foreign ownership has played an important role in ownership structure of Vietnamese firms because of its large proportion of contribution in GDP and development of economy. By this reform, Vietnamese stock market has been developing gradually since 2000 and becoming an important financing channel for corporations. Therefore, the number of listed companies on the stock market increased sharply, which derives partly from the fact that there is a large foreign investment inflow to the market. Along with the development of the stock

market, Vietnam's State Securities Commission stipulated that foreign investors are allowed to own up to 49% in listed companies. This restriction prevents further participation of foreign investors in listed firms. However, the market is becoming more and more attractive investment channel for foreign investors and foreign investors could be considered as leaders of most market movements as well as are playing an important role in the listed firms' profitability increasingly.

In the context of increased globalization of capital markets, many countries have gradually opened up their capital market to attract foreign investors. As an emerging market, Vietnam has become a potential economy, attracted attention of foreign investors and strongly contributed to the development of the global and regional economy. As a result, foreign ownership not only contributes to the development of capital market or the economic development

of emerging countries, but has also become important actors in ownership structure systems. Accordingly, it is necessary to investigate the relationship between foreign ownership and Vietnamese firms' profitability.

This study is to examine the relationship between foreign investment ownership and the profitability of Vietnamese firms listed on Ho Chi Minh Stock Exchange (H.S.X). In addition, the research also provides implications for policymakers and firm managers to review their corporate governance. The data of the study are obtained from 161 non-financial listed companies on H.S.X for the period of 2007-2014.

2. Literature review and methodology

2.1. Literature review

The relationship between ownership structure and corporate performance is mainly based on the agency theory proposed by Jensen and Meckling (1976). From the view of agency theory, firms benefit from a high level of foreign ownership because foreign investors demand higher standards of corporate governance and assume a role of active monitors. However, when foreign ownership becomes concentrated, they can be negatively associated to firm's value through entrenchment effect.

Many researchers have examined the relationship between foreign ownership and profitability of firms but there is no consensus in results. A group of authors such as Chhibber & Majumdar (1999), Douma et al. (2006), Musallam (2015), Zakaria et al. (2014), Bilyk (2009), Mokaya & Jagongo (2015), Hoekman et al. (1999), Vinh (2014) suggests that foreign ownership impacts positively on firm profitability. This means

that the firms having higher foreign ownership may achieve superior performance.

Some of authors find no significant impact of foreign investors on firm profitability such as Kumar (2004), Jiang (2007), Lee (2008), IO Mihai & C Mihai (2013), Kosak & Cok (2008).

Some literature investigate the effect of the degree of foreign ownership on firm profitability, yet only a limited number of papers provide a full investigation of the possible non-linear relationship between the degree of foreign ownership and the firm profitability including Greenaway et al. (2009), Gurbuz & Aybars (2010), Azzam et al. (2013), Park (2002), Phung & Hoang (2013), Viet (2013). These studies are not sufficiently comprehensive in their approach to the relation between foreign ownership and firm profitability. Accordingly, to fill this gap in the literature, further study analyzes the impact of degree of foreign ownership on firms' profitability in the context of Vietnam.

The following hypothesis is proposed:

H: Foreign ownership has an inverted U-shaped relationship with the profitability of listed firms in Vietnam.

2.2. Methodology

2.2.1. The sample

The sample of this study includes 161 non-financial firms which were listed on H.S.X. The data spans the period from 2007 to 2014. Eight years of data are considered for each of 161 firms resulting in an unbalanced panel dataset of 1288 firm-year observations.

2.2.2. Data collection

The data, which are used in empirical analysis, are secondary annual data of Vietnamese listed firms' financial figures. The raw data are provided by Vietstock. These data include financial information at the end of the year and foreign ownership from annual reports, audited financial reports.

2.2.3. Empirical model

The empirical models below are estimated:

$$\text{Profit}_{it} = \beta_0 + \beta_1\text{FO}_{it} + \beta_2\text{SIZE}_{it} + \beta_3\text{LEV}_{it} + \beta_4\text{AT}_{it} + \beta_5\text{TAN}_{it} + \beta_6\text{INV}_{it} + \beta_7\text{LIQ}_{it} + \beta_8\text{D_INDUSTRY}_i + \beta_9\text{D_YEAR}_t + \varepsilon_{it} \quad (1)$$

$$\text{Profit}_{it} = \beta_0 + \beta_1\text{FO}_{it} + \beta_2\text{FO}_{it}^2 + \beta_3\text{SIZE}_{it} + \beta_4\text{LEV}_{it} + \beta_5\text{AT}_{it} + \beta_6\text{TAN}_{it} + \beta_7\text{INV}_{it} + \beta_8\text{LIQ}_{it} + \beta_9\text{D_INDUSTRY}_i + \beta_{10}\text{D_YEAR}_t + \varepsilon_{it} \quad (2)$$

Where:

Profit is measured by ROA which is calculated by the ratio of earnings after interest and tax to total assets (Chhibber & Majumdar, 1999; Jiang, 2007; Moez et al., 2015; Azzam et al., 2013).

FO is percentage of equity shares held by foreign investors (Lee, 2008; Bilyk, 2009; Kumar, 2004; Musallam, 2015; Vinh, 2014).

FO² is square of foreign ownership (Greenaway et al., 2009; Park, 2002; Phung and Hoang, 2013; Viet, 2013).

SIZE is natural logarithm of total assets (Greenaway et al., 2009; Gurbuz and Aybas, 2010; Azzam et al., 2013; Bilyk, 2009; Phung and Hoang, 2013; Vinh, 2014; Viet, 2013).

LEV is the ratio of total debt to total debt and equity (Phung and Hoang, 2013; Vinh, 2014; Gurbuz and Aybas, 2010;

Azzam et al., 2013; Lee, 2008; Bilyk, 2009).

AT is the ratio of net sales to total assets (Gurbuz and Aybas, 2010).

TAN is the ratio between fixed assets and total assets (Gurbuz and Aybas, 2010; IO Mihai and C Mihai, 2013).

INV is the ratio of capital expenditure to total assets (Vinh, 2014; Phung and Hoang, 2013; Musallam, 2015).

LIQ is the ratio of current assets to current liabilities (Lee, 2008; Bylik, 2009).

D_INDUSTRY is industry dummy.

D_YEAR is year dummy.

3. Results and discussion

3.1. Results

3.1.1. Descriptive statistics

The average of ROA is 0.076 and this indicator has a large spread in its value, which refers that there was a significant gap in firm profitability among Vietnamese listed companies during the period of time under study. Average foreign ownership is only 13.3%.

Table 1. Statistical summary of variables

Variable	Mean	Min	Max
ROA	0.076	-0.646	0.501
FO	0.133	0	0.725
SIZE	27.618	24.878	32.136
LEV	0.472	0.003	0.875
AT	1.155	0	12.734
TAN	0.288	0	0.939
INV	0.063	0	0.568
LIQ	2.187	0.113	25.879

Table 2 shows descriptive statistics for foreign ownership variable.

Table 2. Distribution of foreign ownership

	N	Min	p5	p10	p25	p50	p75	p95	Max
FO	1204	0	0	0	0.0109	0.0701	0.2155	0.4775	0.7248

Approximate 50% of listed firms have foreign ownership less than 7.01%, which indicates that the low degree of foreign ownership in many listed firms in the market. There are 25% and 5% number of listed firms which have foreign ownership larger than 21.55% and 47.75%, respectively. In general, there is a limitation in foreign ownership of listed firms in Vietnam.

3.1.2. Correlation analysis

Table 3 indicates the correlation between all variables mentioned in regression. In general, most correlation coefficients among variables are quite low. In addition, the results from VIF test show that all figures are less than 10, reflecting that the multicollinearity problem is not serious.

Table 3. Correlation matrix of variables

	ROA	FO	FO_SQ	SIZE	LEV	AT	TAN	INV	LIQ
ROA	1.0000								
FO	0.1677	1.0000							
FO_SQ	0.1484	0.9425	1.0000						
SIZE	-0.0695	0.3099	0.2311	1.0000					
LEV	-0.4536	-0.2456	-0.2663	0.2843	1.0000				
AT	0.0684	-0.1198	-0.0872	-0.2304	0.0680	1.0000			
TAN	-0.0390	0.0616	0.0976	0.0200	-0.0669	-0.1005	1.0000		
INV	0.0968	0.0362	0.0375	0.0241	-0.0007	0.0061	0.4237	1.0000	
LIQ	0.2212	0.0531	0.0400	-0.0832	-0.5425	-0.1082	-0.1091	-0.0337	1.0000

3.1.3. Empirical results

In pooled OLS regression, Table 4 shows that the coefficient of foreign ownership in model (1) is positive but it is not statistically significant. Therefore, there is not enough statistical evidence to reject or accept the hypothesis H1.

Regarding model (2), the coefficients of foreign ownership and squared foreign ownership are positive and negative, respectively, at the 1% and 5% significance

level. This indicates that there exists a significant inverted U-shaped relationship between foreign ownership and firm profitability. The results support proposed hypothesis H2 and are in line with most of previous studies.

The Hausman test indicates that the REM may give biased and inconsistent estimators, yet, the FEM remains an unbiased and consistent estimator. Also, the F-test

statistic shows that the FEM is better than pooled OLS model. Overall, in this research, FEM is better than pooled OLS and REM to indicate the effect of foreign ownership on firm profitability. In order to increase the efficiency of the FEM, the tests for

heteroskedasticity and autocorrelation are conducted. The results show the presence of heteroskedasticity and autocorrelation in all models. Therefore, FEM with robust standard errors method is employed to deal with this problem.

Table 4. *The results of regression analysis*

VARIABLES	Dependent variable ROA					
	OLS		FEM		FEM-robust	
FO	0.0133 (0.0146)	0.108*** (0.0402)	-0.0192 (0.0187)	-0.0933** (0.0468)	-0.0192 (0.0213)	-0.0933* (0.0555)
FO_SQ		-0.208** (0.0827)		0.182* (0.105)		0.182 (0.113)
SIZE	0.00680*** (0.00195)	0.00611*** (0.00196)	0.0303*** (0.00700)	0.0305*** (0.00700)	0.0303*** (0.00810)	0.0305*** (0.00810)
LEV	-0.198*** (0.0130)	-0.200*** (0.0130)	-0.223*** (0.0200)	-0.220*** (0.0200)	-0.223*** (0.0377)	-0.220*** (0.0376)
AT	0.00725*** (0.00165)	0.00747*** (0.00165)	0.0157*** (0.00349)	0.0157*** (0.00349)	0.0157*** (0.00540)	0.0157*** (0.00543)
TAN	-0.0467*** (0.0108)	-0.0434*** (0.0108)	-0.115*** (0.0176)	-0.114*** (0.0176)	-0.115*** (0.0267)	-0.114*** (0.0264)
INV	0.137*** (0.0273)	0.134*** (0.0273)	0.0743*** (0.0243)	0.0760*** (0.0243)	0.0743** (0.0316)	0.0760** (0.0316)
LIQ	-0.00147 (0.00117)	-0.00164 (0.00117)	-0.00248** (0.00106)	-0.00239** (0.00106)	-0.00248* (0.00128)	-0.00239* (0.00131)
Constant	-0.0223 (0.0514)	-0.00693 (0.0516)	-0.615*** (0.186)	-0.622*** (0.186)	-0.615*** (0.206)	-0.622*** (0.207)
Observations	1,204	1,204	1,196	1,196	1,196	1,196
Year fixed effect	No	No	Yes	Yes	Yes	Yes
Industry fixed effect	No	No	Yes	Yes	Yes	Yes
R-squared	0.251	0.255	0.244	0.246	0.244	0.246
Overall F-test	57.35	51.20	23.56	22.23	14.69	13.88
Pro > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hausman test Chi2			31.92	32.45		
Prob > Chi2			0.0041	0.0056		
F-test that u _i =0			6.78	6.81		
Pro > F			0.0000	0.0000		
Wald test for heteroskedasticity			33905.05 0.0000	40752.07 0.0000		
Wooldridge test for autocorrelation			10.483 0.0015	10.283 0.0016		

Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Contrary to the result of model (1) in pooled OLS model, the coefficients of foreign ownership in FEM and FEM-robust are negative and it is not also statistically significant. Consequently, no strong conclusion relating to H1 can be drawn. In model (2), the coefficients of foreign ownership and squared foreign ownership are negative and positive, correspondingly in both FEM and FEM-robust. However, they are significant at different level. Generally, the foreign ownership and firm profitability relationship appears in U-shaped form. This result is surprising because it does not confirm the hypothesis H2. This relation is not consistent with majority of prior studies but it supports the paper of Phung and Hoang (2013). The turning point for U-shaped relationship in this case is approximately 25.6%. Firm profitability declines with an increase of foreign ownership up to this level and when foreign ownership goes beyond 25.6%, profitability increases.

Additionally, all control variables, including SIZE, LEV, AT, TAN, INV, LIQ, have statistically significant coefficients in all models. SIZE, INV and AT all have positive and significant association with firm profitability. Meanwhile, LEV, TAN and LIQ have negative and significant effect on firm profitability in both models.

3.1.4. Robustness check

Reverse causality mentioned in the studies of Gurbuz and Aybas (2010), Bilyk (2009), Park (2002), Lee (2008), Azzam et al. (2013), Viet (2013). Viet (2013) indicates the argument on endogeneity issue because foreign investors may choose firm with good corporate governance to invest. This problem is stressed in the study of Lee (2008) that ownership structure is an endogenous result of an optimizing process, not an exogenous factor that affects performance. As a result, it is essential to solve the potential reverse relationship in foreign ownership-profitability link. This study employs one year lag values of foreign ownership and its squared term to solve the reverse causality of foreign ownership-profitability link based on the methods of Steinberg and Malhotra (2014), Feng and Wu (2015), McAlister et al. (2007).

The outcomes from Table 5 reveal consistent sign of foreign ownership and squared foreign ownership variables in model (1) and (2) with those of Table 4. This reconfirms that foreign ownership has U-shaped relationship with firm profitability, which supports the study of Phung and Hoang (2013). Besides, all control variables show the same results with previous analysis.

Table 5. Regression results using one year lag variables

VARIABLES	DEPENDENT VARIABLE ROA	
	Model (1)	Model (2)
lagFO	-0.0172 (0.0194)	-0.103* (0.0532)
lagFO_SQ		0.199* (0.105)
SIZE	0.0214*** (0.00798)	0.0219*** (0.00813)
LEV	-0.199*** (0.0363)	-0.196*** (0.0356)

AT	0.0159*** (0.00555)	0.0160*** (0.00555)
TAN	-0.119*** (0.0262)	-0.119*** (0.0259)
INV	0.0826** (0.0318)	0.0845*** (0.0315)
LIQ	-0.00284** (0.00144)	-0.00277* (0.00145)
Constant	-0.381* (0.202)	-0.392* (0.205)
Observations	1,194	1,194
Year and industry fixed effect	Yes	Yes
R-squared (within)	0.236	0.239
Overall F-test	14.57	13.86
Pro > F	0.0000	0.0000

Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

3.2. Discussion

3.2.1. Discussion and implications

From the empirical findings, foreign ownership has U-shaped relationship with firm profitability. Specifically, firm profitability declines as foreign participation rises up to about 25.7% and increases thereafter. This implies that foreign ownership may have reverse impact when it is concentrated. Due to lower level of foreign ownership at first, they cannot conduct their monitoring role and express their advantages. Therefore, although foreign ownership is related to lower profitability at first, it would enhance firm profitability when it reaches to a substantial level. Foreign shareholders can do their monitoring role in listed firms when they have enough proportion ownership in ownership structure of firms. They can monitor managers and mitigate the decisions of managers, which force them to align their goals with the shareholders' goals. Also, foreign investors require high levels of information disclosure and accounting practices, which may reduce agency problems in firms and enhance the firm profitability. At a high level of ownership

they have ability to transfer new and useful knowledge and technology and firms can utilize better resources from foreign investors in order to improve profitability.

Results from this study imply that policy makers in emerging markets like Vietnam where corporate governance system is weak should consider about limitation of foreign ownership. To improve corporate governance system quality for Vietnamese firms, it is recommended that policy makers should increase limitation of foreign ownership level as well as loose the "room" for foreign investors.

3.2.2. Limitations and further research

The study has short sample size and sample period, which may affect to the significance of testing. The further research can use data collected from H.S.X and H.N.X with longer period of study. Secondly, this study does not differentiate between block and non-block foreign investors, although these groups may have different effects on firm profitability. This implies that further research about the structure of foreign ownership in firms should be conducted to highlight more the role of foreign ownership.

Finally, the study only investigates the relationship between foreign ownership and firm profitability in terms of ROA. Therefore, further research can investigate the effect of foreign ownership on total factor productivity, ROS, ROI to ensure for the robustness of the results.

4. Conclusion

The main objective of this paper is to examine the relationship between foreign ownership and firm profitability in the Vietnam context. Pooled OLS model, FEM and REM are employed with a panel data of Vietnamese listed firms to test the relationship between foreign ownership and firm profitability. The empirical results reveal that the foreign ownership and firm profitability has U-shaped relationship. The findings contribute into providing additional evidence on the U-shaped relationship between foreign ownership and firm profitability in the context of Vietnam as well as in emerging markets. It may be explained that although foreign ownership is related to lower profitability at first, it would enhance

firm profitability when it reaches to a substantial level.

Moreover, the study also gives general view about the effect of control variables such as firm size, leverage, asset turnover, tangibility, investment and liquidity on firm profitability. Firm size, asset turnover and investment both have positive relationship with firm profitability. On the contrary, leverage, tangibility and liquidity are negatively correlated with firm profitability.

With empirical evidence of Vietnamese listed firms on Ho Chi Minh stock exchange, the study contributes to the practical perspective by providing an insight on the relationship between foreign ownership and firm profitability. The research helps policy makers in Vietnam to consider the policy for foreign investors so that foreign ownership can support to deal with the weak corporate governance system. Besides, the study also assists firm managers in recognizing the context of foreign ownership in Vietnam to have appropriate strategy which aims to enhance corporate governance quality.

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