

# 論文の要旨

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論文題目 BOARD INDEPENDENCE, FOREIGN OWNERSHIP, AND STOCK RETURN VOLATILITY IN VIETNAM

論文の要旨

## CHAPTER 1: INTRODUCTION

Efficient corporate governance is considered as an important mechanism to reduce information asymmetries and thus prevent financial crises, especially for emerging markets. However, compared with developed economies, corporate governance characteristics in Vietnam may be different. Thus, investigating the relationship between corporate governance and stock return volatility contributes to stabilizing the stock market.

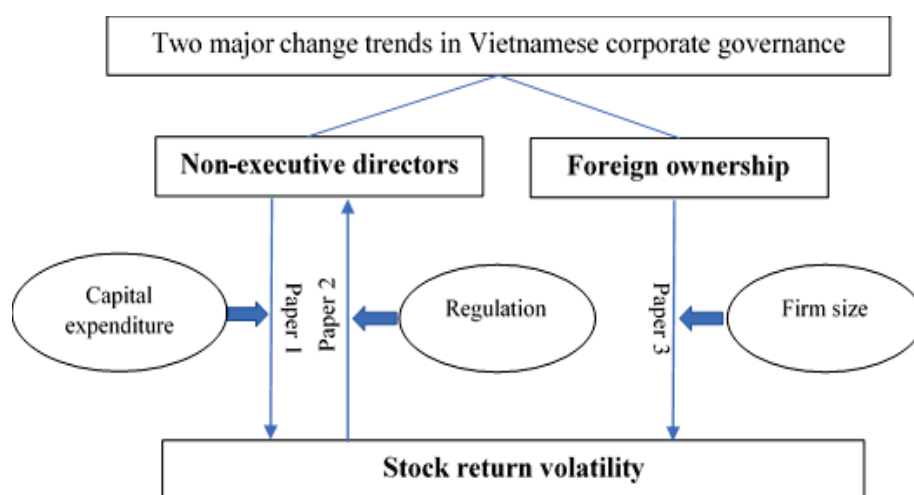
In recent years, building board independence and increasing foreign ownership to improve information transparency have become two major trends in Vietnamese corporate governance.

First, the Vietnamese government has gradually had significant interests in board independence in the listed firms. Notably, the Circular 121/2012/TT-BTC dated July 26, 2012 provided further regulations on corporate governance applicable to public companies. It is the first official legal document to define the concept of non-executive directors in Vietnam, which has significantly increased board independence in the listed firms. The regulations connected internal control and risk management. Thus, *this dissertation will investigate and give more insights into the role of non-executive directors in controlling the fluctuation of stock returns in the Vietnamese listed firms.*

Second, the gradual removal of the restrictions on foreign ownership has boosted foreign capital inflows into the Vietnam stock market. Notably, the Decree No. 60/2015/ND-CP permits foreign investors to own up to 100 percent of the equity (instead of 49 percent as promulgated before) in most public Vietnamese companies. The increased presence of foreign investors is expected to improve transparency for the listed companies and hence provide stock price stabilization. Therefore, *this dissertation investigates whether attracting more foreign ownership can be considered as a mechanism to control stock return volatility for Vietnamese listed firms.*

Instead of studying the effect of corporate governance characteristics on performance like many previous papers, this dissertation has some differences as follows: *First*, the study focuses on two major change trends in Vietnamese corporate governance, and more specifically, these two trends are significantly influenced by the laws of Vietnam. *Second*, the impacts of corporate governance on the fluctuations of stock returns are still of little concern from researchers in Vietnam, compared with the influence of corporate governance on firm performance. *Third*, instead of only studying the one-way influence of board independence on stock return volatility, this dissertation examines the two-way effect between these two variables. *Finally*, the relationship between corporate governance and stock return volatility will be explained in more detail through the impacts of the moderating factors.

**Figure 1.2: Overall dissertation structure**



## **CHAPTER 2: (PAPER 1) THE RISK MANAGEMENT ROLE OF NON-EXECUTIVE DIRECTORS: FROM CAPITAL EXPENDITURE PERSPECTIVE**

The unclear separation of control and management has become a major obstacle to monitoring and thus led to potential risks. Although the increase in non-executive director ratio under the Circular 121/2012/TT-BTC is appreciated as a big step in reforming the board structure towards enhancing transparency, the monitoring role of non-executive directors in Vietnamese listed companies may still be not effective. It is because majority shareholders often interfere with the appointment of non-executive directors to strengthen their control of the company.

Besides, corporate risk in some industries may also come from poor control of capital expenditure. One of the reasons for the excessive capital expenditures in

Vietnamese listed firms may be due to the agency problems between majority and minority shareholders. Majority shareholders have an incentive to use their control rights to divert funds and resources to other companies or projects they control. However, until now, only a few papers examine the relationship between capital expenditures and firm risk as well as the combined effect of board characteristics and capital expenditures on firm risk.

Therefore, this paper is conducted with a sample of 151 listed companies on Vietnamese stock markets from 2007 to 2016, *for investigating the impact of non-executive director ratio on firm risk, especially in the presence of overinvestment*. The model is written as follows:

$$RISK_{it} = \beta_0 + \beta_1 NON\_EX_{it} + \beta_2 FSIZE_{it} + \beta_3 PB_{it} + \beta_4 STDEBT_{it} + \beta_5 CAPEX_{it} + \beta_6 CASH_{it} + \beta_7 DIV_{it} + \beta_8 NON\_EX_{it} * CAPEX_{it} + \varepsilon_{it} \quad (2.1)$$

The paper uses daily stock returns for calculating firm risk. RISK1 equals the annualized standard deviation of daily stock returns. RISK2 equals the standard deviation of the residuals estimated from the market model:  $R_{i,t} = \alpha_i + \beta_i RM_t + \varepsilon_{i,t}$ .

NON\_EX is non-executive director ratio. FSZISE is natural logarithm of total assets, PB is the market value to book value of equity, STDEBT is the ratio of short-term debt to total debt, CAPEX is the change in fixed assets plus depreciation scaled by total assets at the beginning of the fiscal year, CASH is calculated as cash and equivalent cash divided by total assets, DIV is the ratio of dividend payout to total assets.

To investigate the moderating effect of capital expenditure in more detail, the original sample is divided into firms with overinvestment and firms with underinvestment. Two measures of overinvestment are conducted as follows:

**Measure 1:** According to Biddle et al. (2009) and Gomariz & Ballesta (2014), overinvestment is measured based on the deviation from the regression model:

$$CAPEX_{it} = \beta_0 + \beta_1 SALE\_GRT_{it-1} + \varepsilon_{it} \quad (2.2)$$

Where SALE\_GRT<sub>it-1</sub> is the growth rate of sales last year. The paper conducts Eq. (2.2) regression cross-sectionally for each industry-year and define the first variable overinvestment (OVERINV1) as a dummy variable that takes on the value of 1 if the residual is positive, and 0 otherwise.

**Measure 2:** The second overinvestment (OVERINV2) is also a dummy, which takes on the value of 1 if the capital expenditure ratio in a company is more than the median industry-year adjusted capital expenditure ratio, and 0 otherwise.

By applying fixed effects and dynamic GMM, this paper shows the positive impact of the non-executive director ratio on firm risk. It demonstrates that the inclusion of

more non-executive directors does not benefit the monitoring function. However, the risk management role of non-executive directors is improved in the case of overinvestment. It suggests that the presence of non-executive directors in firms with more capital expenditures are likely to mitigate the volatility of stock returns.

### **CHAPTER 3: (PAPER 2) THE CHANGE IN BOARD INDEPENDENCE IN THE PRESENCE OF FIRM RISK AND REGULATION**

Two primary factors motivate the research question:

First, so far, there has been debate over the effects of firm risk on board independence. Besides, the appointment of non-executive directors in Vietnamese listed firms is interfered by majority shareholders who have a strong tie with the management team. *Therefore, the first question is whether stock return volatility might cause a change in board independence or not?*

Second, maintaining an independent board has become a major regulatory trend in corporate governance and forced many firms to change their board structure to comply, especially for high-risk firms. *Thus, this paper would also like to investigate whether high-risk companies increase their board independence under the pressure of Circular 121/2012/TT-BTC.*

Following Brick & Chidambaran (2008), this paper uses the following model to test these two above hypotheses simultaneously.

$$\text{NON\_EX}_{it} = \beta_0 + \beta_1\text{RISK}_{it} + \beta_2\text{RISK\_SQ}_{it} + \beta_3\text{REG}_{it} + \beta_4\text{RISK\_REG}_{it} + \beta_5\text{REPLACE}_{it-1} + \beta_6\text{BSIZE}_{it-1} + \beta_7\text{FSIZE}_{it-1} + \beta_8\text{STDEBT}_{it-1} + \beta_9\text{DIV}_{it-1} + \varepsilon_{it} \quad (3.1)$$

The research uses two proxies for risk measurement. First, RISK1 equals the standard deviation of daily stock return for two years preceding the end of the fiscal year. Second, RISK2 equals the standard deviation of the residuals from the model:  $R_{it} = \alpha_i + \beta_i \text{RM}_t + \varepsilon_{it}$  for two years preceding the end of the fiscal year.

The squared value of firm risk (RISK\_SQ) is used to capture the nonlinear effect of firm risk on the proportion of non-executive directors. RISK\_REG is an interaction variable between firm risk and regulation (RISK\*REG). REG is a dummy variable for the Circular 121/2012/TT-BTC (REG equals 1 for the post-2012 period, and 0 otherwise). NON\_EX is non-executive director ratio. REPLACE is replacement director ratio, BSIZE is board size, FSIZE is firm size, STDEBT is short-term debt maturity, DIV is dividend payout ratio.

Because fixed and random effect estimators may be biased and inconsistent if the current firm risk and some explanatory variables are affected by the past non-executive

ratio. Consequently, this paper will re-estimate the impacts of firm risk on board independence in a dynamic framework:

$$\begin{aligned} \text{NON\_EX}_{it} = & \beta_0 + \beta_1 \text{NON\_EX}_{it-1} + \beta_2 \text{RISK}_{it} + \beta_3 \text{RISK\_SQ}_{it} + \beta_4 \text{REG}_{it} + \\ & \beta_5 \text{RISK\_REG}_{it} + \beta_6 \text{REPLACE}_{it-1} + \beta_7 \text{BSIZE}_{it-1} + \beta_8 \text{FSIZE}_{it-1} + \beta_9 \text{STDEBT}_{it-1} \\ & + \beta_{10} \text{DIV}_{it-1} + \varepsilon_{it} \quad (3.2) \end{aligned}$$

By using a sample of 151 listed companies on Vietnamese stock markets from 2007 to 2016, the research results indicated the U-shaped nonlinear impact of firm risk on the non-executive director ratio. The monitoring role of non-executive directors became less important when the stock return volatility became higher; however, there is a limit beyond which the benefits outweigh the costs of monitoring. Other outcomes show that in the presence of regulation, high-risk firms have more incentives to increase the percentage of non-executive directors.

#### **CHAPTER 4: (PAPER 3) FOREIGN OWNERSHIP AND STOCK RETURN VOLATILITY IN VIETNAM: THE DESTABILIZING ROLE OF FIRM SIZE**

Under international economic integration, the gradual removal of the restrictions on foreign ownership has boosted foreign capital inflows into the Vietnam stock market. Notably, the Decree No. 60/2015/ND-CP permits foreign investors to own up to 100 percent of the equity (instead of 49 percent as promulgated before) in most public Vietnamese companies. The increased presence of foreign investors is expected to improve transparency for listed companies and hence provide stock price stabilization. Therefore, *it drives us to investigate whether attracting more foreign ownership can be considered as a mechanism to control stock return volatility for the listed firms.*

However, foreign investors in many large listed companies in the Vietnam stock market are usually large financial institutions. Their high proportions of equity can promote them to become large shareholders with the opportunities to divert firm resources for their private benefits at the expense of minority shareholders, which can lead to more information asymmetries. *The impact of foreign investors on stock return volatility in such firms should be thus evaluated with more caution.*

In brief, the paper does not only examine the direct influence of foreign ownership on the volatility of stock returns but also further consider this association in relation to firm size. The model is written as follows:

$$\text{VOL}_{it} = \beta_0 + \beta_1 \text{FOWN}_{it} + \beta_2 \text{FOWN}_{it} * \text{FSIZE}_{it} + \sum \beta_k * \text{Control}_{it} + \varepsilon_{it}$$

The study uses two measures of stock return volatility ( $\text{VOL}_{it}$ ): (i) the standard deviation of daily stock returns on a fiscal year basis and (ii) the standard deviation of

the residuals from the market model:  $R_{it} = \alpha_i + \beta_i RM_t + \varepsilon_{it}$  on a fiscal year basis.  $FOWN_{it}$  is the proportion of shares held by foreign investors.  $Control_{it}$  are controlling variables.

Although unobservable heterogeneity can be eliminated by fixed effects regressions, the estimated coefficients may still be biased if the dependent variable and explanatory variables are simultaneously determined. Therefore, the study re-estimates the model by instrumental variable regressions to check the robustness of the estimates.

To address potential problems, the study uses  $FOWN_{t-1}$  as an instrument for  $FOWN$  (Han et al., 2015). Another potential instrument for  $FOWN$  is  $DIR\_EXP$  (the average working years of the directors in the company) because boards with long-serving members tend to be averse to strategic change and reluctant to internationalization (Golden & Zajac, 2001). As mentioned in chapter 2,  $NON\_EX$  is likely to be another endogenous variable. According to Li (1994) and Mak & Li (2001), board size has a negative impact on the composition of outside board members. Besides, individual director attributes (such as directors' age, experience, and so on) are associated with the environment in which non-executive directors perform their duties. Therefore, the study uses  $\Delta \ln BSIZE_{t-1}$  (the lag of the change in  $\ln BSIZE$ ),  $DIR\_EXP$  (the average working years of the directors in the company),  $DIR\_AGE$  (the average age of the directors on board) as instrumental variables for  $NON\_EX$ . Then, F-tests and Hansen tests of over-identifying restrictions are necessary to confirm the validity of these instruments.

By using a list of Vietnamese non-financial listed firms from 2008 to 2017, the study shows a negative influence of foreign ownership on stock return volatility, but notably, the calming impact of foreign ownership becomes weaker in large firms. The findings are proved to be consistent when the study applies instrumental variable regressions and uses the future one-year volatility as an alternative measure of the dependent variable.

## **CHAPTER 5: CONCLUSION**

The dissertation has three main conclusions. First, the inclusion of more non-executive directors does not benefit the monitoring function. However, the risk management role of non-executive directors is improved in the case of overinvestment or high risk. Second, attracting foreign investors should be considered as a risk control mechanism, but its effectiveness may depend on firm size. Third, improving the regulations on corporate governance towards removing the restrictions on foreign ownership and increasing board independence is essential to enhance the quality of governance systems and risk management.