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Audit Quality and Stock Return Co-Movement: Evidence from Vietnam*

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Abstract

This paper aims to explore the relationship between the quality of the audit and the level of stock return co-movement in the context of the Vietnamese emerging market. The empirical study is designed based on the quantitative method and deductive approach. The panel dataset includes 256 listed firms from different industries, with 1115 firm-year observations on Ho Chi Minh City Stock Exchange for the period from 2014 to 2018. In the research, we built the econometric regression model, using stock return synchronicity and audit quality as the dependent and independent variable, respectively. Some control variables are also added to the econometric regression models as they are well-documented in prior research to have an effect on stock price synchronicity. To improve the accuracy of the regression coefficients, besides the Ordinary Least Squares, we employ the Random Effects Model and the Fixed Effects Model for better statistical analysis of panel data set. The results show that the quality of the audit is positively correlated to stock price synchronicity. This finding suggests that stock returns of companies with higher quality of the audit are more synchronous with the market. Results for other control variables also support our reasoning for the main findings.

Keywords: Audit Quality, Stock Return Synchronicity, Informational Environment, Firm-Specific Information, Vietnam

JEL Classification Code: G12, M41, M42

1. Introduction

In the literature of accounting and finance, stock synchronicity is used in capital market to represent the

movement of stock prices in the same direction with the market. This concept is often studied in relation to the quality of the market information. It implies different levels of market efficiency according to different contexts. In other words, stock price synchronicity can function differently in different markets.

Another strand of literature that is inextricably linked with the efficiency of the informational environment is audit quality. The concept “audit”, derived from the Latin word meaning “to hear”, emerged in the 1840s with the objective of verifying the true and fairness of information presented in corporate reports. Although auditing effectiveness can vary and depends on audit quality, it is well-documented in previous research that auditing is a useful tool in limiting biased reporting, improving firm’s performance, reducing agency problem, and information asymmetry (Kim, Chung, & Firth, 2003; Rahman, Meah, & Chaudhory, 2019).

In this study, we pull together the above two concepts and propose that audit quality has a significant impact on the stock synchronicity in the case of the Vietnamese emerging market. After nearly two decades of development, the Vietnamese market has experienced rapid growth with

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two stock exchanges. Ho Chi Minh City stock exchange is currently the larger one that surpasses the other in terms of listed companies, trading volume, as well as market capitalisation. Despite the achievement and potential prospect, it is undeniable that Vietnam's economy is still small and partially open, in which the stock market is far short of being perfect. Hence, it might be more interesting to investigate the association between the quality of the audit and stock return synchronicity in the context of Vietnamese emerging market, as stock price tracks its firm-specifics more loosely in a less transparent and more speculative market.

Our finding contributes to the small literature studying the relationship between these two factors. The research question is: "Does a relationship between audit quality and stock price synchronicity exist?" Based on the research's objective, we adopt the deductive approach and quantitative research design to investigate the causal relationships between audit quality and stock return synchronicity. Accordingly, the article is structured around four sections, including the literature review, methodology, result analysis, and the conclusion.

2. Literature Review

2.1. Audit Quality

The quality of the audit is the likelihood that the auditors will detect and report material misstatements in the client's accounting reports (DeAngelo, 1981). A combination of fraudulent financial statements and a poor-quality audit might lead to serious economic losses for users, or worse, to a crisis for the whole economy. The world will never forget the lesson it learned from the demise of energy company Enron and its audit firm Arthur Andersen LLP. Therefore, it can be said that the auditor, as an insurance provider and information intermediary, has an essential role in verifying the accuracy and reliability of the firms' financial statements before they are published (Mansi, Maxwell, & Miller, 2014).

Previous studies also paid much attention to the topic of audit quality and concurred in its positive impacts on various aspects. According to agency theory, it is considered to have a crucial role in mitigating agency conflict. The reliable financial reporting guaranteed by the audit can enhance management accountability and be an effective tool for shareholders to monitor management tasks (Salehi, Moradi, & Paydarmanesh, 2017). Market-wide, auditing plays a vital role in alleviating information asymmetry between insiders and outsiders by improving the quality of information presented in financial statements and reducing the earnings management (Almarayeh, Aibar-Guzmán, & Abdullatif, 2020; Chae, Nakano, & Fujitani, 2020; Cohen, Dey, & Lys, 2008). Hussainey (2009) found that investors are able to improve their predictions on firms' future performance and reduce risks and uncertainty when accounting reports are

verified by a high-quality audit firm such as the Big Four accounting firms. A recent study by Legoria, Reichelt, and Soileau (2017) investigating the effect of audit quality on corporate disclosure revealed that the quality of the audit firms explains the client firms' choice to mandatorily disclose their major customers' identities. In summary, the benefit of assurance is recognised in protecting financial report users, including investors, and in enhancing the transparency and efficiency of the information environment.

2.2. Stock Price Synchronicity

Roll (1988) defined R-square from the traditional CAPM model. He posited that stock price variation is caused by different levels of variation, including firm-specific variation, industry-level variation, and market-level variation. The last two belong to systematic variation. The level of the synchronous movement depends on the proportion of systematic information incorporated in stock price, which is captured by the value of determination's coefficient (R-square) in the regression model. In other words, the higher level of stock return variation that can be explained by industry and market variation, the higher level of stock price synchronicity in the market. From the time of Roll's research, numerous and extensive works have been done on stock price synchronicity using the value of R-square estimated through regressing individual stock return to the industry and market returns. However, the researchers' opinions on the concept of stock price synchronicity, which is often studied in association with the efficiency of the information environment, are not consistent.

On the one hand, the conventional wisdom is that a higher level of stock synchronicity means a smaller amount of firm-specific information capitalised in the share price, which is due to the inefficient or intransparent information environment and vice versa. Roll (1988) also supported this argument. He showed that stock return's co-movement depends on the proportion of firm-level and market-level information reflected into the price of shares. In detail, a low value of R-square seems to 'imply the existence of either private information or else occasional frenzy unrelated to concrete information' (1988, p.566). Motivated by Roll's research, a number of studies carried out mainly in developed markets with different scales, from country to cross-country level, asserted the negative relationship between return synchronicity and the quality of information environment. These studies' findings suggested that there is a low level of stock price synchronicity in developed markets, which is due to their strong legal system, well-established institutional structure, and informed trading. Stocks in these markets are more informational with better price discovery.

There are two levels of the information environment, including market-level (e.g., property right protections

and governmental regulations) and firm-level (e.g., corporate governance mechanism, corporate reporting, and disclosure). It is well established that both of these information environment's levels in developed markets are more efficient and transparent than those in emerging and developing markets (Chen & Yuan, 2004; Hu & Liu, 2013; Jin & Myers, 2006). Accordingly, Morck, Yeung, and Yu (2000) proposed that a strong legal system for investor protection in developed markets encourages investors to conduct informed tradings, leading to a high level of firm's private information in stock price and, therefore, lower level of synchronicity. They examined synchronous movement of stock prices worldwide at the country level and came to the conclusion that stock prices move together more in poor economies than in rich economies. Following Morck, Yeung, and Yu (2000), Jin and Myers (2006) observed cross-country synchronicity and pointed out that some degree of opacity (lack of transparency) reduces the value of R-square. Likewise, Haggard, Martin, and Pereira (2008) argued that greater disclosure reveals more firm-private information and reduces the incidence of stock price crashes.

Further studies also used stock-price synchronicity as a reciprocal measure for firm-specific information, and added support to such view (Fernandes & Ferreira, 2009; Hutton, Marcus, & Tehranian, 2009). At firm-level, the asynchronous movement of stock return with the market's return is explained by the firm's inefficient governance mechanism. Typical firm characteristic of high concentrated ownership by family members or government in emerging markets enables them to withhold firm private information to outside investors and create opportunities for them to extract private control benefits at the expense of outside investors (Bertrand, Mehta, & Mullainathan, 2002). Consequently, it is more expensive for outsiders to acquire firm fundamentals, discouraging them from making informed trading, and leading to less capitalization of firm-specific information in stock price or high synchronicity. Gul, Kim, and Qiu (2010) also concluded that synchronicity is a concave function of ownership by the largest shareholder and foreign ownership is inversely related to synchronicity as foreign shareholders may be more effective in monitoring firm's insiders and improving the agency problem.

On the other hand, a school of thoughts that recently becomes more dominant in emerging markets, interpreted the correlation between stock price synchronicity and the information environment in the contrasting way. There are reasons to support this claim. Firstly, Dasgupta, Gan, and Gao (2010) explained that, in a market with efficient information, stock price only responds to announcements or events that are new to the market and are not incorporated in the price. As the information environment surrounding the firm is improved, firm-specific information becomes available to all participants in the market. More firm's private information

disclosed today should be associated with less firm's private information revealed in the future and, therefore, a high level of return synchronicity. Return synchronicity, as described by Dasgupta, Gan, and Gao (2010), has the dynamic behavior that will first decrease when new information is impounded in stock prices, but increase subsequently.

The second explanation for the positive relationship has something to do with the role of foreign investors in the market. International investors, especially institutional investors, are the most dynamic participants of the emerging market (Farooq & Ahmed, 2014). They often come from developed countries with a strong informational environment and, hence, expect to experience the low level of information asymmetry in the market they invest. They will feel more confident to buy shares of companies with good corporate governance mechanism and avoid or try to minimize the firm-specific information's risk. As a result, the price of stocks owned by international investors will capitalize more market-wide information and, therefore, more synchronous as Hu and Liu (2013) claimed: 'we do find stocks with higher R-square are more likely to be widely held by institutional investors than those with lower R-square' (2013, p.20). Lastly, the literature suggested that large firms with efficient corporate governance in the emerging market often reveal more macro-economic information and have more synchronize trading with the market (Piotroski & Roulston, 2004; Chan & Hameed, 2006). Accordingly, various studies used stock price synchronicity as the direct proxy for information environment quality or stock price information to observe market behaviors that jointly validate their interpretations of the stock price's synchronous movement (Anh, Thu, & Quynh, 2020; Farooq & Ahmed, 2014; Vo, 2017).

2.3. The Relationship between Audit Quality and Stock Price Synchronicity

Despite a large body of literature studying stock price synchronicity, very little research focuses on its relationship with audit quality. As our literature review shows, both of them are inextricably linked to the concept of information environment. However, while the positive effect of audit quality on information environment is agreed among researchers, mixed results found on the relationship between synchronicity and information environment. Stock return synchronicity behaves differently in different type or market and economy. Hence, it is not a surprise if there exist different viewpoints on the association between audit quality and stock price co-movement. Gul, Kim, and Qiu (2010) reported that it is an antagonistic relationship as a high-quality audit helps to reveal more reliable and greater firm-specific information to the public and, thus, makes the stock prices less synchronous. He also stated in his study that firms with low return co-movement are more likely to

choose high-quality auditors (Big Four auditors). However, the relationship between audit quality and stock price synchronicity can be interpreted the other way around if it comes to the second viewpoint about synchronicity in the emerging market. Our hypothesis is illustrated by Figure 1.

Hypothesis: There exist a significant relationship between stock return synchronicity and audit quality

3. Research Methodology

3.1. Research Methods

3.1.1. Research Model

We conduct a quantitative research, which employs the deductive approach to investigate the relationship between the audit quality and stock price synchronicity in the context of the emerging market in Vietnam. To test the four hypotheses, we build the model shown in Equation 1.

$$SYNCHit = \beta_0 + \beta_1 AUDITit + \gamma CONTROLit + \epsilon it \quad (1)$$

Where:

SYNCHit is the stock price synchronicity of firm *i* at time *t*, estimated by Equation 3 and Equation 4

AUDITit is the audit quality of firm *i* at time *t*

CONTROLit represents for control variables of firm *i* at time *t*

3.1.2. Measure for Audit Quality (AUDIT)

The literature uses multiple measures for the quality of the audit. A number of previous studies linked the audit quality to the size of the audit firm. The literature recognised audit firm size as a good audit quality’s indication. Compared to smaller audit firms, big audit offices are expected to face less litigation in the future because they possess a combination of competent, skilled specialists and the high technology capacity. Recent research also confirmed that the Big Four firms have higher audit quality than the others and that client companies’ shareholders favor Big Four firms with hope of receiving an excellent audit performance (Wachid & Yunita, 2019). We follow previous studies and employ the size of the audit firms to measure audit quality. *AUDIT* is the dummy variable, which receives the value of 1 if the audit firm is big four or the value of 0 otherwise.

3.1.3. Measure for Stock Price Synchronicity (SYNCH)

$$FRi,j,t = \alpha i,0 + \alpha i,1 MRt + \alpha i,2 IRj,t + \epsilon i,t \quad (2)$$

Where:

FR_{i,j,t} is the firm *i*’s return in industry *j* at time *t*

MR_{m,t} is the market’s return at time *t*

IR_{j,t} is the industry *j*’s return at time *t*

In the traditional model suggested by Roll (1988) (Equation 2), the individual firm return is regressed to the returns of the market and industry. The value of R-square (coefficient of determination) represents the extent to which the variation on the firm’s stock return can be explained by the systematic variations, including market-wide and industry variation. The higher value of R-square means the higher level of stock price synchronicity. In contrast, a low level of R-square might imply the higher level of firm-specific information incorporated in stock price. Morck, Yeung, and Yu (2000) argued that, in an emerging market, the dominance of few industries over the others makes it difficult to distinguish their effects from the market’s effect. Besides, the return of a industry might reflect firm-specific information of dominant firms in that industry rather than typical industry news. Accordingly, he proposed to remove industry return from Roll’s traditional model, using only the return of the market (Equation 3). Finally, due to the natural limitation of R-square value, which is bounded within the range of [0, 1], the logarithmic transformation of *R*² (*SYNCH*) is employed as the measure for stock price synchronicity (Equation 4).

$$FRi,j,t = \alpha i,0 + \alpha i,1 MRt + \epsilon i,t \quad (3)$$

Where:

FR_{i,j,t} is the firm *i*’s return in industry *j* at day *t*

MR_{m,t} is the market’s return at day *t*

$$SYNCHi,t = \text{Log} [R^2 / (1 - R^2)] \quad (4)$$

3.1.4. Control Variables (CONTROL)

We also include some control variables as they are well documented in prior research to have an impact on stock price synchronicity.

Board independence, coded as *INDEP*, is measured by the number of non-executive members on the board. The

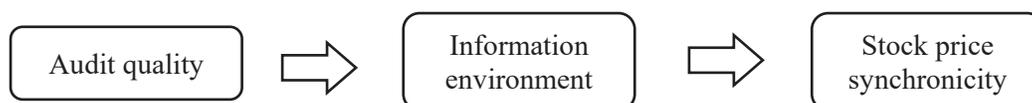


Figure 1: Hypothesis Illustration

literature shows different results on the relationship between firm age and return synchronicity. Ntow-Gyamfi, Bokpin, and Gemegah(2015) documented that board independence is negatively correlated to synchronicity because, he argued, low synchronicity signifies the good information efficiency. On the contrary, Anh, Thu, and Quynh (2020) reported the opposite finding from the emerging market in Vietnam.

Firm size (*SIZE*) is defined as the company's total assets. While there exists the contrasting viewpoint on the relationship between stock synchronicity and the transparency of the information environment. Research seems to agree that stock price of larger firms capitalizes less firm-specific and more market-wide information, making it more synchronous to the market (Chan & Chan, 2014; Piotroski & Roulstone, 2004; Roll, 1988).

Foreign ownership (*FOWN*) is the total proportion of firm shares held by international investors. In emerging markets, most of literature espouses the view that foreign investors help to improve the transparency of the market, and it confirmed that foreign ownership was significantly positive in predicting synchronicity (Anh, Thu, & Quynh, 2020; Vo, 2017).

Ownership concentration (*LOWN*) is the total proportion of firm shares held by shareholders holding from 5% of the firm stocks. We add ownership concentration to this model as the typical variable for the Vietnamese market as firms in Vietnam are well characterized by highly concentrated ownership structure. This trait of ownership structure is also shared among emerging markets.

Risk (*RISK*) is the market volatility's proxy and measured by the standard deviation of the daily returns of the stock price (Equation (5)). The larger range of stock return standard deviation means the greater level of risk. Risk is estimated by the following formula:

$$RISK_{i,t} = \sqrt{\frac{1}{n} \sum_{j=1}^n (Return_{i,j} - Mean_{i,t})^2} \quad (5)$$

Leverage (*LEV*) is the firm's financial leverage. It is equal to the long-term debt divided by equity. This ratio is used as a control variable in some studies on stock price synchronicity (Boubaker, Mansali, & Rjiba, 2014; Hutton, Marcus, & Tehranian, 2009).

The market-to-book ratio (*MTB*) is calculated as total debts' book value and equity's market value divided by total assets. Mixed results are found on the relationship between the market-to-book ratio and stock return synchronicity. Gul, Kim, and Qiu (2010) contended that a firm with a high market-to-book ratio has a lower level of stock return comovement to the market. The market-to-book ratio is often used as the proxy for the firm's value and growth opportunity. Higher market-to-book ratio may be the evidence of the

firm's good abilities, signaling the efficiency and greater firm fundamentals incorporated in stock return and, thus, lower level of synchronicity. Nevertheless, the opposite outcome was shown in the study by Ntow-Gyamfi, Bokpin, and Gemegah(2015).

3.2. Data Collection

Our data set includes listed firms on the Ho Chi Minh City stock exchange (HOSE). Along with the Hanoi stock exchange (HNX), HOSE is one of the two administrative agencies of the SSC (State Securities Commission). After 20 years from the time of establishment, HOSE has grown rapidly with more than 350 firms listed, thus, becoming the largest stock exchange in Vietnam. HOSE has stricter requirements for firms listed and is 16 times bigger than HNX in the total market capitalisation, which accounted for more than 70% of Vietnamese GDP in 2018. Therefore, although the number of companies listed in HOSE is only a small proportion of total firms in the economy, they are considered the largest firms with the best corporate governance mechanism.

Data for the research are provided by TaiViet Corporation, a leading financial data supplier in Vietnam. To be included in the research, firms must be non-financial companies, be listed, and remain listed in the period from 2014 to 2018.

4. Results and Discussion

4.1. Descriptive Statistics

Statistic results for all variables are shown in Table 1. Over 1115 valid observations, the value range of R-square is from 0 to 0.93. The mean of R-square is 0.095. Accordingly, the max, min, and average figure of return synchronicity (*SYNCH*) are -3, 1.12, and -1.43, respectively. These figures are higher than in the past, the period from 2007 to 2015, reported in the study of Vo (2017) with -17.8, 0.9, and -2.3, respectively. Therefore, it can be said that for this period, stock prices are more synchronous.

However, R-square and *SYNCH* of the Vietnamese market are relatively low, compared to the Chinese market, which revealed the average value of 0.43 and -0.23 and in the research of Gul, Kim, and Qiu (2010). A low level of R-square in an emerging market, as explained by Kelly (2014), might be a sign of a weak information environment.

The audit quality (*AUDIT*) is measured by the audit firm's size. It is the dummy variable receiving the value of 1 if the audit firm is big four and 0 otherwise. On average, 2 out of 10 firms in HOSE are audited by the Big Four.

Board independence (*INDEP*) is measured by the number of non-executive members on the board. It can be seen from Table 1 that Vietnamese firms have a max of 10 independent

members on the board and there are listed companies with no independent members. This is under law enforcement because Vietnamese law for public companies requires at least one-third of the total number of members on the board to be independent.

For ownership concentration (*LOWN*), it is noticeable that large shareholders in Vietnamese firms can hold up to more than 99% stocks of the companies. The majority of firm share held by the large owners is more likely to accompany with their extremely dominant voting rights and power in the companies. This is one of the typical features of firms in the Vietnamese emerging market, which can affect seriously to information reporting and disclosure process.

On average, foreign investors (*FOWN*) own nearly 16% of the firm's shares. The maximum and minimum value is 78% and 0%, respectively. These figures are higher than in the past as the Vietnamese government had removed the cap of foreign ownership in public firms from 2015, which

was at 49%. This policy aims to attract more foreign capital poured into the market, encouraging multiple ownership and creating motivations for economic development.

The correlation matrix is presented in Table 2. The only result that relates to the possibility of serious multicollinearity is the correlation between leverage (*LEV*) and market-to-book ratio (*MTB*), which has a value of 0.618. However, after checking the VIF indexed shown in Table 3, we can conclude that there is no serious multi-collinearity problem in the model's variable set.

4.2. Results and Discussion

The outcomes of three models, including the pooled regression, the fixed effects, and the random effects model, are summarised in Table 3. The F-test = 2.86 with significance $P < 0.01$ indicates that the fixed effects model

Table 1: Descriptive Statistics

	Obs.**	Minimum	Maximum	Mean	Std. Deviation
SYNCH	1115	-3.00	1.12	-1.43	0.78
R-Square	1115	0	0.930	0.095	0.108
AUDIT	1115	0	1.00	0.19	0.69
INDEP	1115	0	10.00	3.85	1.49
LOWN	1115	0	99.51	49.79	22.49
FOWN	1115	0	77.58	15.58	16.06
SIZE*	1115	128,013	287,974,177	4,544,700	14,964,856
RISK	1115	103	52,852	3,606	4,856
LEV	1115	0.01	140.26	1.68	4.83
MTB	1115	0.07	35.44	1.25	1.42

* SIZE unit: Million VND** Obs: Number of Observations

Table 2: Correlation Matrix

	AUDIT	INDEP	LOWN	FOWN	SIZE	RISK	LEV	MTB
AUDIT	1							
INDEP	.279**	1						
LOWN	0.052	0.055	1					
FOWN	.420**	.198**	-0.001	1				
SIZE	.231**	.249**	0.021	.180**	1			
RISK	.170**	.122**	.125**	.201**	.151**	1		
LEV	-0.017	-.060*	-0.036	-.082**	0.017	-0.036	1	
MTB	.139**	.092**	.086**	.075*	.147**	.377**	.618**	1
Obs.	1115	1115	1115	1115	1115	1115	1115	1115

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

is the more suitable in comparison to the regression model. The Hausman Test chooses the random effects model over the fixed effects model. Under the fixed effects model, the problem of heteroskedasticity is found and corrected by clustering (robust) the standard errors by the firm.

Under the random effects model, the coefficient of determination is 0.2615, indicating that 26.25% of the variance in the stock synchronicity is predicted from the set of independent variables. Generally, audit quality (*AUDIT*), board independent (*INDEP*), foreign ownership (*FOWN*), and firm size (*SIZE*) are found to be positively associated with stock return co-movement (*SYNCH*), while ownership concentration (*LOWN*) and market-to-book (*MTB*) show the negative impact on the return synchronicity.

The hypothesis proposed by the research is confirmed. The higher quality of the audit makes stock returns move more together. The better audit quality reduces information asymmetry between managers and shareholders, between controlling shareholders and minority shareholders, and between firm outsiders and insiders. Auditors are viewed as information intermediators who assure the credibility of financial information reported. This result found in the context of the Vietnamese emerging market might imply that the information environment positively affects stock price synchronicity as well. Also, we found additional evidence supporting the latter view on the relationship between the quality of the information environment and the stock return's co-movement. Firstly, the regression outcome for other variables also reports the significantly impact of board independence and foreign ownership on synchronicity. It is well established in the literature that the

participation of non-executive directors on the company board or of international investors in the market as shareholders will help to enhance the transparency and efficiency of information environment at both firm-level and market-level. Therefore, it is reasonable that these two variables influence synchronicity in the same direction as the audit quality does. Secondly, the value of R-square produced from the modified Roll's model is at a relatively low level for the Vietnamese market. As interpreted by the recent trend in emerging markets, this can be referred as a poor informational environment.

5. Conclusion

This is a quantitative research, adopting the deductive approach to explain the causal relationship between audit quality and the stock co-movement's level in the market. We found that the quality of the audit is positively related to stock price synchronicity. This finding can be explained through the following mechanism: audit quality improves the transparency of the corporate reporting and disclosure, which in turn makes stock prices more synchronous. Hence, another implication of the finding might be the positive relationship between stock price synchronicity and the information environment. This suggestion adds more support to the recently dominant viewpoint on the behavior of stock synchronicity in emerging markets.

However, we posited that this outcome does not negate the opposite standpoint suggested by prior research as stock prices function variously, following different direction in each particular market. In order to interpret an association,

Table 3:Regression Results

	Pool OLS		Fixed Effects		Random Effects		Robust REM		VIF
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	
AUDIT	0.14***	0.047	0.067	0.108	0.106**	0.059	0.106*	0.065	1.31
INDEP	0.032**	0.014	0.0410	0.108	0.038**	0.017	0.038**	0.018	1.15
FOWN	0.020***	0.001	0.021***	0.003	0.020***	0.002	0.020***	0.002	1.28
LOWN	-0.005***	0.001	-0.002	0.002	-0.005***	0.001	-0.005***	0.001	1.03
SIZE	5.8E-09***	1.4E-09	-5.7E-09	3.5E-09	4.0E-09**	1.8E-09	4.0E-09**	1.9E-09	1.13
RISK	-6.8E-06	4.8E-06	-3.1E-06	6.1E-06	-6.2E-06	5.1E-06	-6.2E-06	4.4E-06	1.38
LEV	0.018	0.006	0.019*	0.010	0.018	0.007	0.018	0.006	1.99
MTB	-0.062***	0.021	-0.073**	0.035	-0.064***	0.024	-0.064***	0.024	2.32
R-Square	0.2580		0.2751		0.2615				
F-test			2.86***						
Hausman Test			6.74						
Chi-square (χ^2) Heteroskedasticity)			157.39***						
Observations			1115						

we first need to put it in a particular context and learn about the nature of that environment.

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