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# Information Asymmetry and Return Synchronicity in Emerging Market

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ABSTRACT

*This study investigates the influence of information asymmetry on stock price synchronicity using data from 356 non-financial listed companies on the Hochiminh City Stock Exchange (HOSE) in Vietnam over a 10-year period (2014 to 2023). We employ various statistical econometric models to test our research hypothesis and enhance the accuracy of regression results, including the Pooled OLS (OLS) model, Random Effects (RE), Fixed Effects (FE), and the GLS model. Our findings reveal a negative impact of information asymmetry on stock price synchronicity. Particularly noteworthy is our observation that in emerging markets, stock prices exhibit greater synchronicity due to higher earnings quality and stronger corporate governance. Our results suggest that low synchronicity reflects corporate opacity and a deficient information environment, while high synchronicity signifies the opposite. The research insights offer valuable guidance to managers seeking to mitigate information asymmetry and enhance stock price synchronicity with the broader market.*

## INTRODUCTION

The concepts of information asymmetry and stock return co-movement are closely connected in the realm of financial markets. Information asymmetry occurs when some investors have access to more or better information than others, creating an uneven playing field. Poor earnings quality worsens this situation by dividing investors into those who are well-informed and those who are not, thus increasing information asymmetry (Bhattacharya et al., 2013). Additionally, low-quality earnings, reflecting a weak informational environment at both the company level (such as corporate governance issues) and the market level (like property rights protections and government interference), can discourage investors from seeking new information about specific companies. This, in turn, reduces market liquidity and the ability of stock prices to reflect true market information.

This discrepancy can impact stock price synchronicity, which measures the degree to which individual stock prices move in tandem with the market or a broader index (Roll, 1988). The level of information asymmetry serves as a critical determinant of the extent to which individual stock movements are driven by market-wide versus firm-specific information. However, existing research on this topic can be categorized into two main schools of thought regarding its nature and implications for the quality of information available within or surrounding a firm.

On one hand, there is a perspective suggesting that robust corporate governance practices and transparent corporate disclosures in developed markets incentivize investors to seek out more company-specific information, leading to lower levels of return synchronicity (Hutton et al., 2009; Morck et al., 2000; Roll, 1988). According to this view, in markets with high information asymmetry, stock prices tend to be less synchronous because informed investors can exploit private information, causing individual stocks to react more strongly to firm-specific news rather than market-wide trends. Conversely, in markets with low information asymmetry, stock prices exhibit higher synchronicity, reflecting a more uniform response to public information and common factors influencing the market as a whole.

On the other hand, another viewpoint has gained empirical support, suggesting that improved transparency in corporate reporting can actually lead to higher levels of stock return co-movement. For instance, Dasgupta et al. (2010) provide both theoretical and empirical evidence to support this argument. Additionally, researchers like Kelly (2014) and Li et al. (2014) concur that lower levels of return synchronicity characterize emerging markets, indicative of weaker information environments. According to this view, in markets where significant information asymmetry exists, stock prices are generally more aligned because the scarcity of reliable, comprehensive information causes investors to rely more on overall market trends and broad economic indicators. This reliance leads to stock prices moving together. Conversely, in markets with minimal information asymmetry, stock prices are less synchronized. The ample availability of public information enables investors to make informed decisions based on company-specific news, causing stock prices to reflect the distinct situations of individual companies rather than general market trends.

The conflicting perspectives on the relationship between information asymmetry and stock price synchronicity serve as a compelling motivation for our research. We primarily focus on investigating the impact of information asymmetry on the secondary financial market, particularly within the context of the frontier market in Vietnam. In constructing our models to explore the connections between information asymmetry and return synchronicity, we place particular emphasis on two key variables: audit quality and foreign ownership. We argue that these factors play crucial roles in overseeing and managing the quality of earnings manipulation. Therefore, we also examine the impacts of these variables, with a specific focus on their moderating effects within the relationship between information asymmetry and stock price synchronicity.

Interestingly, our findings align more closely with the second viewpoint regarding the relationship between stock return synchronicity and the information environment. We observe a negative association between stock price synchronicity and information asymmetry in the Vietnamese emerging market. Remarkably, the degree of stock synchronicity in Vietnam is notably lower compared to more developed markets. This novel contribution to the literature sheds light on the dynamics of emerging markets and the unique relationship between information asymmetry and stock return synchronicity.

## 2. LITERATURE REVIEW

### 2.1. Information asymmetry

Information asymmetry in the stock market occurs when some investors have access to crucial information that others do not. This disparity can significantly affect trading behavior, stock prices, and overall market efficiency. Typically, insiders, such as company executives and major shareholders, have more detailed knowledge about a company's performance and prospects compared to average investors. This imbalance creates a scenario where those with privileged information can make more informed decisions, potentially at the expense of less informed participants.

Several factors contribute to information asymmetry in the stock market. As noted by Abad et al. (2018) and Cerqueira and Pereira (2015), the stock market is characterized by the presence of market participants who possess superior information compared to others, leading to a division between informed and

uninformed investors. Informed investors typically acquire their information advantages through two primary channels. Firstly, they may gain access to valuable private information that is withheld by insiders. Insider trading represents a significant contributor to this aspect, where individuals with access to non-public, material information about a company trade its stocks based on such privileged knowledge. Although regulatory filings, such as quarterly earnings reports, aim to level the playing field, they often fall short in eliminating the information gap entirely. Secondly, information advantages may also accrue to traders who possess superior abilities in processing and interpreting public information to uncover the true performance and value of a firm concealed behind manipulated figures (Kim & Verrecchia, 1994). Institutional investors frequently leverage their substantial resources to conduct thorough research and obtain insights that retail investors cannot match. Examples of avenues through which institutional players may gain an information edge include analysts' reports, proprietary algorithms, and direct communication with company management.

The effects of information asymmetry are profound. One significant impact is market inefficiency. When some investors can trade based on superior information, stock prices may not accurately reflect the true value of securities, leading to mispriced assets. This can result in adverse selection, where uninformed investors are disadvantaged, potentially leading them to exit the market or refrain from investing. Consequently, this reduces market liquidity and increases volatility. Moreover, information asymmetry can erode investor confidence. When retail investors perceive that the market is unfairly tilted in favor of insiders or institutional players, their trust in the financial system diminishes. This skepticism can reduce overall market participation and hinder capital formation. Furthermore, the presence of informed trading can exacerbate market reactions to news and events, leading to overreactions or underreactions, which can further distort stock prices and market behavior.

## 2.2 Stock price synchronicity and the effect of information asymmetry

R. Roll (1988) introduced the concept of return co-movement and its estimation method. He categorized stock return variation into systematic (market and industry) and firm-specific variations. Systematic variation leads to stock prices moving with the market, termed stock price synchronicity. Roll suggested that lower synchronicity might indicate either private information or market frenzy. He explained that return synchronicity depends on different levels of information, including firm level and market level. Private information in stock prices causes them to move asynchronously with the market. Subsequent research supports the view that lower synchronicity is linked to more private information, implying a transparent information environment with strong investor protection (Jin & Myers, 2006; Hu & Liu, 2013; Morck et al., 2000).

However, some studies report opposite findings. J. Piotroski (2004) and Chan and Hameed (2006) noted that more analyst coverage in emerging markets makes stock prices more synchronous with the market. Dasgupta et al. (2010) found that better informational transparency increases stock return co-movement, a view more common in emerging markets. O. Farooq and S. Ahmed (2014) and Hu and Liu (2013) argued that foreign and institutional investors prefer firms that have better management activities and financial disclosure, minimizing firm-specific risk and leading to higher stock price co-movement (Hasan et al., 2014; Hu & Liu, 2013). H. Nguyen et al. (2020) highlighted two reasons for this: market efficiency and better corporate governance. Strong information environments lead to accurate investor forecasts, resulting in less firm-specific information in the companies' stock returns and higher future price co-movement.

A significant body of research has examined the influence of information asymmetry on stock price synchronicity, yielding varied results. For example, A. Hutton et al. (2009) studied the link between opacity and price co-movement in the U.S. market, using earnings management as a measure of opacity, and found a positive correlation between profit manipulation and return co-movement. This finding is echoed in research by R. Das et al. (2016) and J. Johnston (2009). Yet, due to ongoing debates about the impact of transparency and the quality of information disclosure on return co-movement, it is prudent to avoid prematurely concluding a definitive positive link between information asymmetry and price co-movement.

Interestingly, despite a wealth of global studies on this topic, there is limited research focusing on the Vietnamese market. The few studies that do address this relationship in Vietnam suggest a positive link

between information asymmetry and return co-movement. For instance, H. Nguyen et al. (2020) and X. Vo (2017) both explored return co-movement in Vietnam and found that "in emerging markets, stock prices move more in concert when corporate governance improves." A higher level of co-movement indicates corporate transparency and a strong informational environment, while low synchronicity suggests the opposite.

Based on these observations, we hypothesize a negative influence of information asymmetry on price synchronicity.

*H1: Information asymmetry negatively affects stock return synchronicity.*

# 3. TEST DESIGN

## 3.1 Research Models

To examine the hypothesis regarding the rlink between information asymmetry and return co-movement, an econometric model is constructed with information asymmetry (ASYMM) as the independent variable and stock price synchronicity (SPS) as the dependent variable.

We control for several variables known to influence stock price synchronicity: the size of the company (FS), the propotion of shares owned by the managers (MAWN), the age of the company (AGE), and the level of debt used in the company (DEBT), as documented in previous research (Nguyen et al., 2019; Ntow-Gyamfi, 2015; Vo, 2017).

We also add the quality of the audit (AUDIT) and the propotion of shares owned by foreign investors (FOREIN) as the control variables. Furthermore, we investigate the mediating role of these two variables to determine if they can mitigate information asymmetry. Interaction terms between information asymmetry and each of these control variables are added into the model. We also account for the effects of industry and year by incorporating industry and year dummy variables. As proposed, we expect that $\beta_1$ will receive a positive sign.

$$SPS_{i.t} = \beta_0 + \beta_1 ASYMM_{i,t} + \beta_2 AUDIT_{i,t} + \beta_3 FOREIN_{i,t} + \beta_4 ASYMM_{i,t} * AUDIT_{i,t} + \beta_5 ASYMM_{i,t} * FOREIN_{i,t} + \beta_6 CONTROLS_{i,t} + \beta_7 INDUSTRY_{i,t} + \beta_8 YEAR_{i,t} + \varepsilon_{i,t} \quad (1)$$

*Where ( i ) represents firm and ( t ) represents year. Stock Return Synchronicity (SPS) is estimated according to Eq. 3 and 4. Information Asymmetry (ASYMM) is estimated by Eq. 5, ), and 7. Audit Quality (AUDIT) is indicated by a value of 1 if the firm is audited by a Big 4 accounting firm, and 0 if audited by other firms. Foreign Ownership (FOREIN) is quantified as the percentage of shares owned by foreign investors. Control variables (CONTROLS) include various factors:*

- *Firm Size (FS): measured as the natural logarithm of the market value of total assets.*
- *Managerial Ownership (MAWN): the rate of shares owned the firms' directors, their spouses, and kids.*
- *Firm Age (AGE): the number of years since the firm's inception.*
- *Firm Leverage (DEBT): the debt-to-equity ratio.*

Additionally, INDUSTRY and YEAR represent industry and year dummy variables, respectively.

## 3.2 Stock price synchronicity measurement

Roll (1988) develops a CAPM model wherein the company's stock returns serve as the dependent variable, while market and industry return acts as independent variable to assess the co-movement of the companies' stock prices with the overall market. The co-movement or synchronicity is quantified using the R-square value, serving as the coefficient of determination derived from regression analysis.
However, Morck et al. (2000) critique this approach, suggesting limitations such as spurious results, particularly prevalent in emerging markets dominated by a few industries, and the restricted nature of R-

square values. In response, Morck et al. propose a refined model, prompting us to adopt their methodology for calculating stock price synchronicity.

The coefficient of determination (R-square) is derived from Eq. 3:

$$r_t = \alpha_0 + \alpha_m r_t + \varepsilon_t \tag{3}$$

Where

- *i denotes firm and t denotes day.*
- *$r_{it}$ represents the return of a firm in a day.*
- *$r_{mt}$ indicates the daily market return.*

Then, synchronicity is calculated according to Eq. 4:

$$SPS = Log(\frac{R^2}{1-R^2}) \tag{4}$$

*Where:*

- *SPS denotes return synchronicity.*
- *$R^2$ is the coefficient of determination of the regression equation (4).*

## 3.3 Information asymmetry measurement

Following the approach outlined by Das et al. (2016) and Hutton et al. (2009), we employ earnings management as a proxy for information asymmetry. Consistent with the methodology of Dechow et al. (1995), we measure information asymmetry using discretionary accruals. Total accruals comprise both discretionary and non-discretionary components. Discretionary accruals or information asymmetry, are computed in some steps as outlined below:

*tep 1: Estimating the parameters $\beta_0$, $\beta_1$, $\beta_2$ and $\beta_3$ from Eq.5:*

$$\frac{TC_t}{TA_{t-1}} = \beta_0 + \beta_1 \frac{1}{TA_{t-1}} + \beta_2 \left(\frac{\Delta Sale_t - \Delta ACC_t}{TA_{t-1}}\right) + \beta_3 \frac{FAS_t}{TA_{t-1}} + \varepsilon_t \tag{5}$$

*Step 2: Estimate non-discretionary accruals based on $\beta_0$, $\beta_1$, $\beta_2$ and $\beta_3$ and Eq.6:*

$$ND_t = \beta + \beta_1 \frac{1}{TA_{t-1}} + \beta_2 \left(\frac{\Delta Sale_t - \Delta ACC_t}{TA_{t-1}}\right) + \beta_3 \frac{FAS_t}{TA_{t-1}} \tag{6}$$

*Step 3: Information asymmetry can be calculated by Eq.7:*

$$ASYMM = \frac{TC_t}{TA_{t-1}} - ND_t \tag{7}$$

*Where:*

- *t denotes year.*
- *ASYMM represents information asymmetry*
- *TC denotes the total accruals*
- *TA represents the firm's total assets.*
- *ΔSale signifies the total changes of sales.*
- *ΔACC indicates the total changes of accounts receivables.*

## 3.4 Data Sample

Our data originates from the Ho Chi Minh City Stock Exchange (HOSE) in Vietnam. HOSE is the largest and most liquid stock exchange in the country. The widely referenced VN-Index (VNI) comprises all the stocks listed on this exchange. To be included in the sampled data, a company must meet the following criteria:

– Non-financial status: Banks, insurance companies, and securities firms are excluded.

– Listing duration: A sampled company must have been listed for at least two years to ensure availability of data spanning a minimum of two years.

After applying these criteria over a period of 10 years from 2014 to 2023, we compile a sample comprising 3,762 observations.

# 4. RESULT AND DISCUSSIONS

## 4.1 Descriptive Statistics

Table 1 provides descriptive statistics for all research model's variables. Information asymmetry (ASYMM), represented by earnings management, is capable of assuming both negative and positive values. The ASYMM maximum value is 1.899 and minimum value -2.263. The mean value is 0.132 and the median value is 0.019, showing that more than 50% of the sampled observations inflates their profit. Further statistical detail for both the negative and positive ASYMM groups are shown in Table 2.

**Table 1.** Statistic Description

| | *ASSYM* | *R-square* | *SPS* | *AUDIT* | *FOREIN* | *MAWN* | *DEBT* | *FS* | *AGE* |
|---|---|---|---|---|---|---|---|---|---|
| Max | 1.899 | 0.953 | 1.392 | 1.000 | 75.051 | 71.864 | 1.392 | 45.845 | 93.963 |
| Min | -2.263 | 0.000 | -3.000 | 0.000 | 0.000 | 0.000 | 0.003 | 13.017 | 9.002 |
| Mean | 0.145 | 0.071 | 0.725 | 0.366 | 13.822 | 17.169 | 0.454 | 20.970 | 25.832 |
| SD | 0.418 | 0.081 | 0.442 | 0.315 | 13.306 | 12.419 | 0.142 | 5.584 | 145.709 |
| Median | 0.014 | 0.056 | -0.153 | 0.000 | 12.011 | 14.567 | 0.272 | 10.924 | 18.218 |
| Obs. | 3,762 | 3,762 | 3,762 | 3,762 | 3,762 | 3,762 | 3,762 | 3,762 | 3,762 |

Source: own

**Table 2.** Descriptive statistics for ASYMM

| | *ASYMM* | *ASYMM <0* | *ASYMM >0* |
|---|---|---|---|
| Max | 1.899 | 0.000 | 1.899 |
| Min | -2.263 | -2.263 | 0.000 |
| Mean | 0.145 | -0.079 | 0.331 |
| SD | 0.399 | 0.164 | 0.152 |
| No. of Obs | 3,762 | 1,744 | 2,062 |

Source: own

Table 3 presents the correlations for each pair of the research's independent variables. Overall, it can be concluded that there are no serious matters of collinearity.

**Table 3.** Correlation matrix

| | *ASYMM* | *AUDIT* | *AUDIT*ASYMM* | *FOREIN* | *FOREIN*ASYMM* | *MAWN* | *DEBT* | *FS* | *AGE* |
|---|---|---|---|---|---|---|---|---|---|
| ASYMM | 1 | | | | | | | | |
| AUDIT | -.419** | 1 | | | | | | | |
| ASYMM*AUDIT | -.133** | -.302* | 1 | | | | | | |
| FOREIN | -.115* | .194* | .313* | 1 | | | | | |
| ASYMM*FOREIN | -.067* | .029** | -.016** | .208** | 1 | | | | |
| MAWN | .318*** | -.105 | -.178*** | -.447*** | .194 | 1 | | | |
| DEBT | -.061 | -.214** | -.009 | -.182* | -.028 | .291*** | 1 | | |
| FS | -.205* | .071* | .300** | .229*** | .171* | .065 | .218* | 1 | |
| AGE | -.006 | .083* | .015 | .066* | .090 | -.031 | -.170* | .204*** | 1 |

Source. Own

## 4.2 Results and discussion

We apply pooled OLS, Fixed Effects, and Random Effects models to our primary analysis. To determine the most appropriate regression method, we evaluate the results of F tests and Hausman tests, as presented in Table 4. For both the ASYMM model and the SPS model, the F test yields a value of 112.09 with a p-value of 0.000, indicating that the Fixed Effects model is more suitable than pooled OLS for our research model. Subsequently, we perform a Hausman test to decide between the Fixed Effects and Random Effects models. The Hausman test produces a Chi-square value of 88.73 with a p-value of 0.000, leading us to reject the null hypothesis (H0) and accept the alternative hypothesis (H1). This result confirms that the Fixed Effects model is the best fit for our dataset.

**Table 4**. Results for the F test and Hausman test

| | *SPS Model* |
|---|---|
| *F test* | F-test = 112.09<br>Prob. > P =0.000 |
| *Hausman Test* | Chi-square = 88.73<br>Prob. = 0.000 |

Source: own

We proceed to test for heteroscedasticity and autocorrelation issues. As shown in Table 6, the p-values for the heteroscedasticity tests are 0.000, leading us to accept the presence of heteroscedasticity. However, there is no indication of autocorrelation issues.

To deal with heteroscedasticity, we run the GLS model and the robust test for the Fixed Effects. The final outcomes for the Fixed Effects, Robust Fixed Effects, and GLS models are presented in Table 5. In all three regression models for SPS, we find that information asymmetry (ASYMM) negatively impacts stock price synchronicity (SPS). This suggests that heightened information asymmetry diminishes the degree to which a company's stock price moves in line with the market. Essentially, better earnings quality tends to lead to greater synchronicity in stock returns. This result diverges from certain previous studies that suggest a positive association between these variables. However, our findings align with the research of Nguyen et al. (2019) and Vo (2017), who also explored the Hochiminh City market and arrived at similar conclusions. Our results support hypothesis H1, which proposes a negative relationship between information asymmetry and return co-movement. This implies that elevated levels of earnings manipulation amplify information asymmetry within the market. Our findings corroborate this prediction and are consistent with earlier research on this topic (Bhattacharya et al., 2013).

**Table 5.** Regression Results for the Fixed Effects and GLS Models

| | *SPS Model* | | |
|---|---|---|---|
| | *Fixed Effects Model* | *Fixed Effects (Robust) Model* | *GLS Model* |
| _Constant | 1.5527 | 0.3221 | 0.4458 |
| ASYMM | 0.6429* | -0.3573* | -0.2502* |
| | (0.7350) | (0.3301) | (0.2047) |
| AUDIT | -0.8401* | 3.0544* | 0.4603* |
| | (0.7317) | (0.5390) | (0.2851) |
| ASYMM*AUDIT | -1.0266 | -7.9025 | -6.3920* |
| | (1.1058) | (4.6056) | (2.1701) |
| FOREIN | -1.1424** | 1.0058** | 1.2429** |
| | (1.1126) | (0.0553) | (1.0283) |
| ASYMM*FOREIN | 15.0190* | -8.0316* | -3.2591* |
| | (7.2184) | (3.0274) | (0.6142) |

| | | | |
|---|---|---|---|
| MAWN | 0.0479 | 2.0147 | 1.3832 |
| | (0.0100) | (1.0038) | (0.5691) |
| DEBT | -0.5839 | -1.7027 | 0.4035 |
| | (0.0772) | (1.6311) | (0.2030) |
| FS | -0.0614** | 0.1341** | 0.1249** |
| | (0.0275) | (0.0584) | (0.7763) |
| AGE | -0.0413* | 0.3693* | 0.8542* |
| | (0.0185) | (0.0524) | (0.7106) |
| Year Dummy | Yes | Yes | Yes |
| Industry Dummy | Yes | Yes | Yes |
| R_square | 0.1767 | 0.1767 | 0.1829 |
| Heteroskedasticity | | 1.183*** | |
| Autocorretion | | 1.136e+05 | |

Note: *, **, and *** indicate p <0.1, 0.05, and 0.01, respectively
Source: own

The results regarding the variable foreign ownership (FOREIN) further reinforce our argument. Specifically, foreign ownership (FOREIN) exhibits a positive impact on stock price co-movement. Prior research has highlighted that high audit quality (AUDIT) and foreign ownership (FOREIN) act as efficient mechanisms for enhancing the quality of corporate reporting, thereby mitigating information disparities among market participants, particularly between outsiders and insiders. High quality of the audit and high level of foreign investors participating in the market function as crucial drivers for improving the quality of corporate reporting by ensuring independence, accountability, and compliance with standards. Independent auditors conduct thorough audits, fostering transparency and minimizing the likelihood of financial misstatements. Furthermore, foreign investors bring elevated expectations for transparency and governance, prompting companies to adhere to global standards and practices. This fosters investor confidence, enhances corporate transparency, and ultimately contributes to an improved quality of reporting, thereby attracting foreign investment. Consistent with this viewpoint, we observe a negative correlation between audit quality and foreign ownership with stock price synchronicity across the Fixed Effects, robust Fixed Effects, and GLS models.

Examining the interaction terms, we find that the interaction between foreign ownership and information asymmetry demonstrates positive and significant effects on return synchronicity. Foreign ownership not only directly influences information asymmetry but also acts as a mediator in the relationship between earnings management and information asymmetry. In the Vietnamese market, the synchronization of stock prices is heightened by larger holdings of foreign investors, who typically favor stocks of firms with stronger corporate governance. Foreign investors play a pivotal role in enhancing the quality of the information environment, leading to greater alignment in stock price movements.

However, for the interaction term between audit quality and information asymmetry, only in the Fixed Effects model, the moderating role of audit quality is recognized. Information asymmetry still demonstrates its negative association with stock synchronicity under the effect of audit quality. However, the GLS model rejects this connection.

In addition to revealing the negative impact on information asymmetry, firm size (FS) and age (AGE) exhibit positive effects on stock return synchronicity. Firm size (FS) and age (AGE) exhibit positive effects on stock return synchronicity for several reasons. Firstly, larger and older firms typically have more established operations, greater market presence, and broader investor coverage, resulting in increased attention from analysts and investors. This heightened scrutiny leads to more information being available about these firms, facilitating better understanding and interpretation of their performance, thus contributing to higher stock return synchronicity. Additionally, larger and older firms may have more stable and diversified business models, reducing idiosyncratic risks and making their stock returns more closely aligned with

market-wide movements. Furthermore, the longevity of older firms often implies a track record of performance and resilience, instilling greater confidence among investors and further enhancing stock return synchronicity. Overall, the size and age of a firm are indicative of its visibility, stability, and track record, all of which contribute to higher levels of return co-movement.

Conversely, both managerial ownership (MAWN) and firm leverage (DEBT) do not display a significant association with stock price synchronicity.

## CONCLUSION

This study investigates the impact of information asymmetry on the secondary financial market, specifically focusing on how information asymmetry, proxied by accrual-based earnings management, influences the distribution of information among participants in the stock market and the co-movement of share prices with the broader market within the Vietnamese context. By examining these relationships, we aim to shed light on the dynamics of information dissemination and stock price behavior in the Vietnamese market, providing valuable insights for investors, policymakers, and market participants.

To test our hypotheses, we performed different regression techniques to robust our outcomes. Pooled OLS (OLS) model, the Random Effects (RE), the Fixed Effects (FE), and the GLS model are compared and the last two models show the best fit with our dataset. We follow empirical papers in the past to use Dechow et al. (1995) model to estimate earnings management. In addition, we are aware that with this model, earnings management can receive negative values which can be misleading to the statistical software and affect the accuracy of econometric results. Thus, we carried out the additional tests with absolute values of earnings management and the outcomes of the test are more robust.

Our results confirm the hypothesis and are in line with viewpoints that information asymmetry proxied by earnings manipilation can garble the market and exacerbate the problem of adverse seletion. An interesting finding of this research is that the degree of stock synchronicity in Vietnam is much lower compared to other developed markets. This fact also supports our anticipation that price co-movement is negatively associated with earnings manipulation. This is a new contribution of our paper to the literature.

Our result also suggest that larger and older companies tend to possess stronger corporate mechanisms and more efficient corporate reporting and disclosure practices, thereby making their stocks more synchronized with overall market movements.

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