

Firm Value in Indonesia: Will Foreigners be the Determinant?

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Abstract

Despite considerable scholarly attention, the literature on foreign investors is characterized by inconsistency and mixed findings. Using a sample of 427 non-financial firms during the period 2012 to 2019, this study provides robust evidence of the relationship between foreign investors and changes in firm value in the Indonesian setting. The investigation results using the two-step system GMM show that the trading behavior of foreign investors is the cause of the decline in firm value. This finding is robust with a number of repeated tests and endogeneity bias. The results of this study can be generalized to the capital markets of developing countries in Asia with thin market characteristics, high information inequality, and weak investor protection. This study is especially useful for regulators in formulating policies and academics.

Nilai Perusahaan di Indonesia: Apakah Pihak Asing Menjadi Penentu?

Abstrak

Meskipun cukup masif perhatian ilmiah, literatur terkait investor asing dikarakteristikan dengan ketidakkonsistenan dan penemuan yang beragam. Menggunakan sampel 427 perusahaan non keuangan selama periode 2012 hingga 2019, studi ini menyediakan bukti yang kuat relasi antara investor asing dan perubahan nilai perusahaan di Indonesia. Hasil investigasi dengan two-step system GMM menunjukkan bahwa perilaku trading investor asing menjadi penyebab penurunan nilai perusahaan. Penemuan ini robust dengan sejumlah pengujian berulang dan bias endogenitas. Hasil studi ini dapat digeneralisasikan pada pasar modal negara berkembang di Asia dengan karakteristik pasar modal dengan perdagangan yang tipis, ketimpangan informasi yang tinggi, dan perlindungan investor yang lemah. Studi ini bermanfaat khususnya bagi regulator dalam menyusun kebijakan dan pihak akademisi.

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INTRODUCTION

Capital markets in Asia, which are generally characterized by emerging markets, have integrated stock price volatility. This integration is global (especially with the US) and regionally (Caporale et al., 2019). The joint movement between emerging markets and the global financial crisis, which has further increased this correlation (Boamah et al., 2020), makes it essential to discuss the topic related to the role of foreign parties in shaping firm value.

The role of foreign parties in the formation of firm asset prices can be viewed from at least two points of view, namely corporate governance and investment behavior. Referring to the corporate governance literature, the presence of foreign parties has a positive impact on the firm (Utama et al., 2017) with indications of better stewardship (Ongore et al., 2011). This ownership also seems to give a good signal to the market in the form of a dividend policy (Setiawan et al., 2016). However, the role of foreign parties in the firm is not always the case because it is also indicated that they do not carry out good monitoring of management and can take over the firm's resources so that it imposes costs on minority shareholders (Thanatawee, 2014).

When it comes to investment behavior, a number of empirical pieces of evidence also show mixed results. Foreign investors have private information (Tayde & Rao, 2011; Wang, 2014; Jin et al., 2016), especially in stock trading (Yang et al., 2017; Weng & Tsai, 2018). They are also claimed to have sophisticated trading strategies (Bae et al., 2008; Chung et al., 2016). However, foreign investors can also act irrationally. The phenomenon in China can be a clear example of this irrational behavior. Qualified foreign institutional investors who have an essential position in choosing investment targets and should pay attention to fundamental analysis also act irrationally (Jin et al., 2016) because of the herding issue. This is a form of irrational behavior that ignores their private information and blindly follows the investment behavior of other investors. Their trading pattern can be like

the expression: "do in Rome as Romans do." (Jin et al., 2016)

This study seeks to provide additional evidence and insight regarding the role of foreign investors in changes in firm value in emerging markets. The object is carried out on the capital market in Indonesia with a number of considerations. First, the percentage of firms controlled by foreign parties in Indonesia shows an increasing direction (Setiawan et al., 2016). This increase can cause the pattern of stock trading by foreign parties to be dominant in determining the valuation of the firm's value (Bonser-Neal et al., 1999). Second, the Indonesian capital market with the thin market category (Liu, 2020; Wijayana & Achjari, 2020) provides accurate information in capturing the power trading of foreign investors. The third is the consideration of asymmetric information in this country (Satrio, 2020).

This study contributes in at least three ways. First, this study provides additional insight into investment behavior by foreign investors in emerging capital markets. In this regard, emerging markets provide a unique dataset compared to developed markets, especially in terms of trade intensity. Second, this study documents new evidence of trading by foreign investors in Indonesia. Third, the estimation period in this study is carried out by considering the efficient market hypothesis (EMH) in emerging markets, namely in weak form and semi-strong conditions (Choi et al., 2010) and report lag in Indonesia (Rusmin & Evans, 2017).

The rest of this paper is organized in the following manner. The second part is a hypothesis development related to the role of foreign investors in changes in firm value. The third section presented research methods. The fourth section reports the results of the empirical tests and discussion. Finally, the fifth section presents a conclusion containing this study's findings and suggestions.

Hypothesis Development

There are at least two perspectives of the current literature that can explain the role of foreign investors on firm value. First, based on the

corporate governance literature. The existence of a conflict of interest between parties in the firm causes a number of agency costs (Jensen & Meckling, 1976), makes the issue of the combination of ownership structure within the firm has an important role. Second, in terms of stock returns and the flow of foreign investors. This perspective can be explained through the sophistication of foreign parties in absorbing and using private information. The framework of behavioral finance theory and EMH can be used as a foundation to explain this phenomenon.

Based on the corporate governance literature, ownership structure plays an important role as it is the main distinguishing feature of the financial system. This ownership structure will affect the nature of agency problems between managers and shareholders and among shareholders (Claessens & Fan, 2002). Ownership is also a determinant of firm value (Demsetz & Lehn, 1985). However, there is no consensus regarding the role of foreign ownership on firm performance and value. First, ownership by foreign investors, on the one hand, is considered to have a positive impact. Foreign investors are considered to be able to implement better corporate governance (Utama et al., 2017) and the existence of stewardship (Ongore et al., 2011). Firms with foreign ownership will impact projected superior performance because they use ownership positions to help develop their strategic interests, which involve securing access to new markets, location-specific resources, and low-cost production facilities (Douma et al., 2006). Foreign institutions, in this case, can have a role in improving firm performance (Boone et al., 2011).

Second, foreign ownership actually has an unfavorable impact. Firms with foreign ownership may not actively supervise corporate governance and management (Sahut & Gharbi, 2010). Firms with ownership by foreign institutional investors in developing countries are actually associated with a low firm value (Thanatawee, 2014). The study results in Thailand show that foreign institutional investors do not actively supervise managers and can instead take over firm resources so that they impose costs on minority shareholders.

Referring to the sophistication of absorbing and using private information by foreign investors, in perfectly informed market conditions, investors actually have not been able to benefit from the information because stock prices have reflected all available information (EMH) (Fama, 1970). However, in developing country capital markets which are identified as weak form and semi-strong (Choi et al., 2010), investor sophistication can play an important role. This is because there are also uninformed investors (bounded efficiency (Miller, 1987)). A number of literatures prove the superiority and sophistication of information on foreign investors. This sophistication is found in a number of countries in developing markets, including in China (Wang, 2014), Japan (Bae et al., 2008), and Taiwan (Weng & Tsai, 2018). This type of investor is also considered more sophisticated because of better market timing (Bae et al., 2008), able to take advantage of the firm's potential prospects in trading (Batten & Vo, 2015), and eliminate price errors in emerging markets (Zhang et al., 2020). This condition causes foreign investors to take most of their profits in trading (Bae et al., 2008).

Even though investors have information, it does not guarantee that they will act on the available information (behavioral finance theory). There is an error in decision-making caused by emotional behavior. Herding theory is one that can explain the emotional behavior of investors. Based on the information-related herding perspective, investors can buy and sell securities together because they have the same information. However, suppose new information is difficult to obtain or difficult to analyze when the stock of interest is very unstable or less liquid. In that case, a trading strategy by following its predecessor (herding) can be an optimal strategy when its predecessor contains new or private information (Lin & Lin, 2014).

A number of studies confirm the herding effect on foreign investors in emerging markets. There is a significant effect of foreign investor herding found in the Korean market, where foreign investors tend to buy (sell) shares sold (bought) by domestic institutions (Jeon & Mof-

fett, 2010). Similar conditions were also found in China, where foreign investors actually followed domestic investment behavior (Jin et al., 2016). The majority of short selling is done by foreign investors in Korea (Lee & Wang, 2015). Foreign investors act as positive feedback traders when investing in the Indian market and as negative feedback traders during their withdrawals (Dhingra et al., 2016). The trading behavior of foreign institutions can shake the market, especially with their selling activities (Dhingra et al., 2016).

The trading behavior of foreign investors impacts changes in the firm's stock valuation. There is some empirical evidence to explain this. Foreign investors are characterized as return chasers, trading at more favorable prices than domestic institutions in Korea (Onishchenko & Üllkü, 2019). Foreign investors take most of their profits by trading with Japanese institutional investors (Bae et al., 2008). Foreign institutional investors can also explain stock returns on the next trading day (Lin & Lin, 2014). Short selling is carried out by foreign investors when buying pressure is high, but it does not increase stock liquidity in Korea (Lee & Wang, 2015). Short selling does not increase volatility, providing evidence of the destabilizing role of foreign investors in emerging markets. Foreign investors erode liquidity, as seen in the Malaysian stock market (Liew et al., 2018). Recent evidence, tested in Japan, shows that firms with larger foreign investments tend to have lower firm values (Likitwongkajon & Vithessonthi, 2020). Their test results show that relatively larger foreign investment will reduce the firm's performance in the long run.

Based on the arguments and previous empirical evidence, the question arises, whether foreign investors will cause changes in the value of firms in Indonesia? While not always rational, sophisticated foreign investors can capture information and take advantage of trading on firm stocks in developing countries. This condition can cause an increase in the volume of purchases as a reflection of positive information on the firm's shares, and of course, they will buy when the price is low. On the other hand, the increase in selling is also a reflection of negative factors

so that foreign investors sell shares which causes share prices to decline. This logic is supported by evidence from Japan (Likitwongkajon & Vithessonthi, 2020). Based on that, the hypothesis built in this study is that "foreign sell and foreign buy have a negative impact on firm value".

METHOD

This study uses financial data and stock trading transactions on 427 non-financial firms listed on the Indonesia Stock Exchange from 2012 to 2019. The analysis was conducted on non-financial firms with the consideration that firms in the financial sector have different financial and regulatory characteristics. Following Deesomsak & Pescetto (2009), the companies investigated in this study with the criteria of having at least three years of data with consideration of testing using the dynamic Generalized Method of Moments (GMM). The test starts with 2012 to avoid the effects of the crises that occurred in 2007 and 2008. Financial data is extracted from the annual financial statements. Stock trading information is obtained from the Indonesia Stock Exchange (IDX) website.

The dependent variable in this study is firm value as proxied by Tobin's Q. Measurement with this ratio is used considering that it is very widely used in empirical tests related to firm value (Fosu et al., 2016; You et al., 2018; Likitwongkajon & Vithessonthi, 2020). The Tobin's Q ratio is measured based on the sum of the market price of equity and the book value of the firm's total debt, which is then compared with total assets. This study also uses the market-to-book value (MBV) as an alternative test to ensure consistency of results. MBV is measured based on a comparison of the firm's stock price and book value per share (Huynh et al., 2020). Tobin's Q and MBV are determined based on the April_{t+1} period to further ensure that the firm's financial information is publicly known at the end of the annual financial year. This test takes into account weak form and semi-strong conditions in capital markets in developing countries (Choi et al., 2010) and financial report lag in Indonesia (Rusmin & Evans, 2017).

The independent variable in this study is the trading behavior of foreign investors, which in this study is reflected in the volume of foreign sell and foreign buy. The data used is also based on the April_{t+1} period with the consideration of testing its effect on firm value in the same period. To avoid scale bias, in this study, a natural logarithm (ln) transformation was carried out on the volume of foreign buy and sell on the day there were buying and selling transactions by investors.

This study considers a number of firm characteristics that can affect firm value. Consideration of using firm characteristics because foreign investors will pay attention to financial management practices (Batten & Vo, 2015). The control variables in this study are leverage, profitability, size, and firm age. The use of leverage, profitability, and firm age into the test takes into account the test results in Vietnam (Batten & Vo, 2015), and that foreign investors adopt a long-term horizon by using a buy-and-hold strategy to take advantage of the firm's potential prospects. Specifically, this study uses profitability because it has an essential role in information (Chung et al., 2016; Handriani, 2020). The use of leverage is also considered to mitigate its causality on firm value (Fosu et al., 2016; Nisamara & Musdholifah, 2016; Handriani, 2020).

Firm characteristics which are reflected in size as a control variable, are also carried out based on considerations from previous studies (Lin & Lin, 2014; Chung et al., 2016; Yang & Segara, 2019). Foreign investors are more likely to buy target stocks with greater wealth effects, as evidenced in the Korean capital market (Yang & Segara, 2019). Herding behavior is closely related to firm characteristics, one of which refers to size differences (Lin & Lin, 2014).

The estimation model in this study was carried out by considering the characteristics of the firm. Data processing with STATA 15. The following is the baseline model in this study:

$$FV_{i,t+1} = \beta_0 + \beta_1 LEVERAGE_{i,t} + \beta_2 PROFIT_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \epsilon_{i,t} \quad (1)$$

Where firm value (FV) is measured by Tobin's Q and MBV. LEVERAGE is calculated using the ratio of debt to total assets. PROFIT refers to the firm's ability to generate profits as measured by earnings before interest and taxes on total assets. Firm size (SIZE) is reflected in the firm's market size logarithm, while AGE is determined by the length of time since being listed on the Indonesia Stock Exchange. The

Table 1. Variable Measurement

Variable	Measurement
Dependent Variable	
Firm value	Tobin's Q = The sum of the market value of equity with the book value of debt, then divided by the book value of total assets.
	MBV = Share price divided by the book value per share.
Independent Variable	
Foreign trading	Foreign sell = Ln volume of purchases by foreign parties when foreign investors conduct trade transactions.
	Foreign buy = Ln volume of sales by foreign parties when foreign investors conduct trade transactions.
Control Variables	
Leverage	DTA = Total debt divided by total assets.
Profitability	ROA = Net income before interest and taxes divided by total assets.
Size	Market size = Ln (market value of equity).
Age	Age = The end date of the financial period minus the date of the initial public offering (IPO) on the Indonesia Stock Exchange.

measurement of each variable can be seen in Table 1. Pooled OLS does the initial detection of the baseline model.

Based on the baseline model, a full model is then built, which in this study aims to test foreign trade transactions (FOREIGN), both foreign buy and foreign sell on changes in firm value. Full model testing with dynamic two-step system GMM to avoid endogeneity problems. Testing using the following regression model:

$$FV_{i,t+1} = \beta_0 + \beta_1 LEVERAGE_{i,t} + \beta_2 PROFIT_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 FOREIGN_{i,t+1} + \varepsilon_{i,t} \quad (2)$$

RESULT AND DISCUSSION

Table 2 presents the firm-year descriptive statistics for this study sample. Overall results show that non-financial firms in Indonesia during the analysis period are categorized as undervalued (Tobin's Q 0.3588) and overvalued

(Tobin's Q 17.7159). The condition and financial performance of the sample firms are not entirely good, which is indicated by the presence of firms experiencing losses and negative equity.

Table 3 presents the correlation matrix between variables in this study. Tests were carried out with a five percent significance threshold. The test results show that there is a positive and significant correlation between Tobin's Q and MBV (0.6267), which indicates that these two proxies are in sync in reflecting changes in firm value. The control variable is significantly correlated with firm value at the 0.05 level, which is an early indication of the ability of these factors to associate with changes in firm value. To ensure no multicollinearity problems between independent variables, this study has also tested each estimation model's variance inflation factor (VIF). The test results show that it is free from multicollinearity problems because the VIF value is less than 5.

Table 2. Descriptive Statistics

	Mean	Std. Dev.	Min	Max
Tobins Q	1.8848	2.4213	0.3588	17.7159
MBV	2.5002	4.5160	-3.3926	32.4807
Foreign Sell	4.3994	6.3506	.0000	19.1271
Foreign Buy	4.4660	6.3692	.0000	18.5615
DTA	.6057	1.1389	.0003	22.6106
ROA	.0538	.3316	-10.6046	2.5570
Size	27.9960	1.9552	21.5386	33.9413
Age	14.9393	9.3582	.0219	68.9966

Table 3. Correlation Matrix

	1	2	3	4	5	6	7	8
1.Tobins Q	1							
2.MBV	.6267*	1						
3.Foreign Sell	.0776*	.0962*	1					
4.Foreign Buy	.0710*	.1004*	.7833*	1				
5.DTA	.4628*	-.0712*	-.0549*	-.0730*	1			
6.ROA	-.0869*	.1348*	.1067*	.1105*	-.3651*	1		
7.Size	.2835*	.3526*	.5605*	.5603*	-.0835*	.1336*	1	
8.Age	-.0071	-.0119	-.0224	-.0302	-.003	.0613*	-.0470*	1

The baseline model testing in this study is presented in Table 4. Tests in the early stages were carried out using pooled OLS to detect the ability of the control variables in this study. In the next step, the baseline model in this study was re-tested with dynamic GMM. Testing with two-step GMM with the aim of overcoming emerging endogeneity problems (Bond & Windmeijer, 2001). Testing with the Hansen Test examines the correlation between the instrument and the error term in the model. A good Hansen test result should accept the null hypothesis, which states that the estimation model is robust and valid. Based on the results of testing the baseline model with two indicators of firm value (Tobin's Q and MBV), both have Hansen Test scores of 5.17 and 14.30 with p-values of 0.160 and 0.217. A p-value is greater than 0.05 means that the GMM model's estimate is robust and valid.

The next stage of testing is carried out by taking into account the values of AR(1) and AR(2). Testing with AR(1) is to ensure the suitability of the test with dynamic GMM, while testing with AR(2) aims to ensure that there is no second-order serial correlation. The test re-

sults should reject the null hypothesis on AR(1) but accept the null hypothesis on AR(2). Based on the baseline model test, it is known that the AR(1) value is -2.97 and -3.66 with p-values of 0.003 and 0.000, which means the null hypothesis is rejected. The test shows the AR(2) value of -1.04 (p-value 0.296) and -0.90 (p-value 0.369), which means the null hypothesis is accepted. The results of the AR(1) and AR(2) tests show that the initial estimation of the baseline model with the dynamic GMM model is consistent and unbiased.

The test results on Tobin's Q and MBV showed that DTA, ROA, size, and age almost all tests showed a statistically significant effect. Overall, these results indicate that there is a role for the firm's characteristics in providing an explanation of changes in firm value. The higher debt as a source of corporate funding tends to increase the firm's value, confirming the role of this funding source in supporting performance and boosting trust by external parties in the firm. Large firms and the ability to generate high profits are also factors that support the increase in firm value in Indonesia.

Table 4. Baseline Model

	OLS		GMM	
	Tobin's Q	MBV	Tobin's Q	MBV
L.Tobins Q			.7237*** (.1295)	
L.MBV				.5705*** (.0792)
DTA	1.0894*** (.0343)	-.0515 (.0736)	.3709*** (.1279)	-.0257 (.0520)
ROA	.3561*** (.1182)	1.0497*** (.2536)	-.5426 (.3637)	.4265* (.2240)
Size	.3992*** (.0191)	.7901*** (.0410)	.0976* (.0517)	.2946*** (.0669)
Age	-.0069* (.0042)	-.0147* (.0089)	.0036 (.0033)	-.0135 (.0096)
Constant	-10.5405*** (.5684)	-20.8207*** (1.2203)	-2.5985** (1.3093)	-7.1448*** (1.7223)
Industry effect			Yes	Yes

Control standard error			Yes	Yes
R-squared	.3772	.1761	NA	NA
AR(1)			-2.97	-3.66
p-value			.003	.000
AR(2)			-1.04	-.90
p-value			.296	.369
Hansen Test			5.17	14.30
p-value			.160	.217

Note: Values in parentheses indicate standard errors. The symbols ***, **, and * show significance at the levels of 0.01, 0.05, and 0.1, respectively.

Table 5 presents the estimation results of the full model in this study after considering the participation of foreign investors in the baseline model. The whole test is carried out by considering the industry’s effect on each firm and controlling for standard errors. This control is carried out with the aim that the estimator remains robust against several types of test errors.

Estimation with two-step dynamic GMM in this study shows the Hansen Test value in the Tobins Q test of 5.38 (p-value 0.146) and 5.44 (p-value 0.142), while the MBV test with a Hansen Test value of 13.23 (p-value 0.278) and 14.94 (p-value 0.185). The overall Hansen Test with a p-value of more than 0.05 indicates that the model is robust and valid. The result of the AR(1) test with a p-value less than 0.05 indicates the rejection of the null hypothesis, which indicates that the test using the dynamic GMM model is appropriate. The overall test results also show a p-value on AR(2), which is more than

0.05, which means that the estimation model in this study is consistent and unbiased.

The full model test results that estimate the role of foreign investors informing Tobin’s Q in Indonesia show a coefficient of -0.0111 for foreign sell and -0.0144 for foreign buyers. Both results are significant at the 0.1 and 0.05 levels, respectively. This value indicates that the trading pattern of foreign investors determines changes in the value of the firm. The increase in foreign sell will be the cause of the decline in firm value, as well as foreign buys in Indonesia. To ensure robust test results, this study also includes MBV as another alternative in measuring firm value. The test results show the foreign sell direction coefficient is -0.0422 and the foreign buy is -0.0478. Both are significant at the 0.05 and 0.01 levels, respectively. These results show consistency with the Tobins Q test as an indicator of firm value. Overall test results support the hypothesis in this study.

Table 5. Full Model

	Tobin’s Q	MBV	Tobin’s Q	MBV
Tobins Q	.7166*** (.1366)		.7131*** (.1385)	
MBV		.5678*** (.0762)		.5681*** (.0781)
Foreign Sell	-.0111* (.0064)	-.0422** (.0164)		
Foreign Buy			-.0144** (.0072)	-.0478*** (.0163)

DTA	.3768*** (.1359)	-.0246 (.0540)	.3786*** (.1401)	-.0338 (.0595)
ROA	-.5333 (.3713)	.4675** (.2272)	-.5285 (.3823)	.4421* (.2319)
Size	.1189* (.0623)	.3761*** (.0832)	.1265* (.0648)	.3784*** (.0819)
Age	.0036 (.0034)	-.0121 (.0093)	.0038 (.0035)	-.0137 (.0098)
Constant	.0000 (.0000)	-9.2773*** (2.1691)	.0000 (.0000)	-9.2954*** (2.1213)
Industry effect	Yes	Yes	Yes	Yes
Control standard error	Yes	Yes	Yes	Yes
AR(1)	-2.97	-3.70	-2.97	-3.69
p-value	.003	.000	.003	.000
AR(2)	-1.05	-0.89	-1.03	-.87
p-value	.294	.376	.301	.386
Hansen Test	5.38	13.23	5.44	14.94
p-value	.146	.278	.142	.185

Note: Values in parentheses indicate standard errors. The symbols ***, **, and * show significance at the levels of 0.01, 0.05, and 0.1, respectively.

The negative role of foreign investor trading in the decline in firm value in Indonesia is a unique phenomenon, which adds insight into the role of foreign investors in firm valuations in emerging markets. The results of this test indicate the behavior of foreign investors, which are characterized as return chasers who trade at more profitable prices (Bae et al., 2008). The empirical evidence of this study is an illustration that also indicates that the increase in the volume of purchases by foreign investors reflects the existence of positive information on the firm's shares. With the support of information excellence, foreign investors will be able to buy firm shares at low prices. On the other hand, an increase in selling volume by investors can also indicate that investors know that there are negative factors, so the selling action of foreign investors is unstoppable. As a result, the firm's stock price fell. The overall test results in this study provide additional evidence that foreign sentiment can provide strong shocks to emerging capital markets.

There is a negative impact of foreign in-

vestor trading on the decline in firm value which can also be explained through the strategy literature. Foreign parties can consider domestic firms that start to make a series of strategic investments abroad as a competitive advantage for domestic firms. This condition is the cause of resistance to these strategic actions by foreign parties, focusing on their own investment to maintain their competitive advantage (Likitwongkajon & Vithessonthi, 2020).

Foreign investors are characterized as traders with superior information (Bae et al., 2008; Wang, 2014; Weng & Tsai, 2018), have the ability to eliminate price errors in emerging markets (Zhang et al., 2020) and are considered to reduce market anomalies (Shin & Park, 2018). Nevertheless, they are unavoidable from irrational issues in transactions (Mushinada, 2020) and herding (Jeon & Moffett, 2010). This is exacerbated if the information available on the capital markets of developing countries is difficult to obtain, so following its predecessor is the optimal strategy (information-related herding perspectives).

CONCLUSION AND RECOMMENDATION

The aim of this study is to investigate the role of foreign investors from the point of view of trading behavior on changes in firm value. The study was conducted on a developing country market, namely Indonesia. The investigation was carried out on all non-financial firms listed on the Indonesia Stock Exchange from 2012 to 2019. The study results show that there is a role for trading by foreign investors in changes in firm value. In a number of literatures, foreign investors are considered informed parties and have sophisticated trading behavior will try to maximize their returns. An increase in foreign sell-by foreign investors can be an early indication that there is negative information on the firm's shares. As a result, the firm's stock price will decrease towards its true value. Furthermore, an increase in foreign buys can also be a sign that there is positive information on the firm's shares. It can also be indicated that the firm's shares are still undervalued.

This study is beneficial for academics by contributing to a body of knowledge that addresses the study of the relationship between foreign parties and the determination of firms asset prices. This study also has practical implications for policymakers in developing countries in formulating regulations to ensure an increase in the quality of information for all capital market traders. Although the herding effect is unavoidable, this effect can be minimized by ensuring information transparency.

However, considering the limitations of this study by examining the role of foreign investors based on investor flow, the evidence presented in this study should be interpreted with caution. Although this study has used all non-financial firms in Indonesia, has taken into account the firm's characteristics, repeated testing to ensure consistency, and uses robust panel regression, the development of future research is still needed. Recent evidence in this study in response to trading behavior by foreign investors needs to be validated in testing in other countries. Tests at the next stage can also be

carried out with other approaches, such as laboratory experiments. The behavior of investors with such an experiment can be captured more deeply, but with a note that the experiment covers a large number of samples and considers the heterogeneity of investors. A laboratory experimental approach can provide an extension to this research.

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