

AN INVESTIGATION OF PRICE MOVEMENTS DURING THE ANNOUNCEMENT OF ACQUISITION NEWS: THE CASE OF JAKARTA STOCK EXCHANGE

Mamduh M. Hanafi
Gadjah Mada University

ABSTRACT

Paper ini ingin melihat siapa yang berada di balik pergerakan harga selama periode pengumuman merger dan akuisisi di Bursa Efek Jakarta. Data menunjukkan bahwa harga meningkat cukup tajam selama periode pengumuman. Penelitian ingin membandingkan apakah investor asing atau domestik yang mendorong pergerakan harga tersebut. Disamping itu, penelitian ini ingin melihat apakah pergerakan harga terkonsentrasi pada volume perdagangan (trade size) yang kecil atau tidak dan apakah terkonsentrasi pada investor domestik yang menggunakan volume perdagangan yang kecil. Hasil analisis memperlihatkan bukti yang cukup kuat yang menunjukkan bahwa investor domestik mendorong pergerakan harga tersebut. Untuk hipotesis kedua dan ketiga, tidak ditemukan bukti yang cukup kuat. Pergerakan harga oleh investor domestik tersebut menunjukkan superioritas informasi yang dimiliki oleh investor domestik, yang berarti ada asimetri informasi di Bursa Efek Jakarta.

Keywords: *Price movement, trading size, acquisition announcement.*

INTRODUCTION

This paper attempts to answer three questions: (1) who are behind price movements in Jakarta Stock Exchange (JSX): domestic or foreign investors, (2) which trade size accounts for the largest price movements in the JSX, and (3) whether an interaction between type of investors and trade size affects price movements in the JSX. The answers to each question have many theoretical and policy implications. From theoretical implications, for example, the asymmetric information between foreign and domestic investors lends support to asymmetric point of view as a possible explanation to home-bias phenomenon (for example, see Kang and Stulz, 1997; Grinblatt and Keloharju, 2000). From policy implications, the findings in this paper highlight several issues, for example: (1) the

findings may contribute to design of market surveillance for insider trading activities, (2) an information asymmetry is one kind of barriers for foreign investors, thus removing this barrier to increase investor base is of a concern for financial authority.

To summarize the paper, this paper finds that domestic investors move prices more during the announcement periods. Based on several tests, this result seems to suggest that domestic investors possess better information than do foreign investors. This conclusion supports asymmetric information in the Indonesian market. Although domestic investors become much more active during the event periods, the observation of trading volume and number of transactions during the event periods shows that both foreign and domestic investors become more active than in

the non-event periods. This finding seems to suggest that the degree of asymmetric information does not seem to be as serious as we thought. Both classes of investors participate in 'non-public yet' information. Evidence to answer the second and third questions seems to be weak. Although the signs are generally as expected – smaller trades and small trades of domestic investors move prices more – , but smaller sample precludes me from obtaining strong statistical power.

This paper is organized as follows. We review related literature in the next section. Section 3 discusses data and methodology used in this paper. The result and discussion follow in section 4. Section 5 concludes this paper.

LITERATURE REVIEW

Information is an important key in financial markets. Those who possess information are likely to gain. Efficient market hypothesis put information as a central theme. According to the hypothesis, an efficient market is a market in which prices reflect all information. One of the implications of such hypothesis is that an investor will not be able to gain excess return only if s/he uses information that has not been impounded in the prices.

This study investigates whether certain class of investor possess better information than other class(es) in an emerging market. This study relates to several issues. First, this study relates to the effect of segmentation on information endowment. Previous papers show that segmentation, either exogenous or endogenous, leads to a violation of the law of one price (for example, see Stulz and Wasserfallen, 1996; Bailey and Jagtiani, 1994; Domowitz and Madhavan, 1997). We investigate the effect of investors' location (i.e. domestic and foreign investors) on information endowment. There are several papers that discuss this issue. Literature on foreign direct investment (FDI) generally assumes that foreign investors are in a disadvantageous position compared to domestic investors (for

example, see Shapiro, 1994). But other factors, such as intangible factors, lead to direct foreign investments in other countries. Second, finance literature documents the home-bias phenomenon (French and Poterba, 1991; Cooper and Kaplanis, 1994; and Tesar and Werner, 1995). Empirical findings show that despite a significant decline of the barriers to international investment, foreign ownership is much more limited. Domestic investors tend to hold domestic stocks disproportionately larger than implied by mean-variance model and the declining barrier of international investment. While the barriers still exist and may have an impact on this phenomenon (Stulz, 1981), one possible explanation to the phenomenon is an information asymmetry in the international markets. Investors seem to exhibit preference for stocks they are familiar with (Merton, 1987).

The literature above generally argues, either implicitly or explicitly, that in domestic markets, foreign investors are in a disadvantageous position compared with domestic investors. Several empirical findings seem to support such prediction, see for example Hau (2001), Bhattacharya et al. (2000). The message in Bhattacharya et al. (2000) is very similar to the message in this paper. Specifically, they focus on the Mexican market: an emerging market where insider trading practices seem to be prevalent. They conclude that insiders seem to take advantage of their information. The Indonesian market seems to possess a much similarity with the Mexican market.¹ While there is an abundance of insider trading suspicions, there has been no criminal indictment of such practice.²

However, the conclusion that domestic investors have better information is still controversial, see for example, Grinblatt and

¹ See Johnson et al. (2000) for a recent paper investigating corporate governance of emerging markets in the Asian financial crisis.

² Criminal indictment can be argued as the most serious measure to fight insider trading activities.

Keloharju, 2000, for the Finland case and Bonser-Neal et al. (1999) for the Indonesian case. There is also a common perception on the street that foreign investors in developing markets are more sophisticated than domestic investors, hence possess information superiority compared to domestic investors.

DATA AND METHODOLOGY

1. Data

We use transaction data obtained directly from the Jakarta Stock Exchange (JSX). The data set contains date of transaction, date of settlement, stock identification, price, trading volume, trading value, time, broker id, broker origin (foreign or domestic), board type, and investor identification (foreign, domestic, and broker account). The acquisition news announcements are based on Rachmawati and Tandelilin (2001). The announcements used end before July 1997, which is a start of the period of financial crisis in Indonesia. Rachmawati and Tandelilin (2001) eliminate the announcements after July 1997, arguing that the acquisitions during the crisis period may not be based on synergy reason, rather more on structuring reasons. This paper also adopts the same argument. Moreover, since foreign investors activities significantly diminish during the crisis period, the use of pre-crisis period avoids possible bias for domestic investors. We also remove acquisition news before May 1995, since the data set starts from the automation of the JSX, which is in May 1995.

The data set identifies the identity of investor's location (domestic, foreign, and brokers).³ But the data have limitations, for example, the data do not have the details of the investors' country of origin, nor does a breakdown into individual and institutional

investors. This paper uses coding from the data set to identify investors' location. We focus on transactions that take place in the regular board. The regular board is the most liquid one (about 83% [89%] of the JSX's trading value [volume] during our sample period) and is likely to be the place for typical investors to trade.

We are able to collect 18 acquisition news announcements as the sample. The sample is clearly small, but it has an advantage of being homogenous, since it is all about acquisitions. Another possible approach is to use various types of news. The advantage is that we can collect more news announcements, but at the expense of heterogeneous news which is more difficult to interpret.

2. Methodology

We calculate return generated by each type of investors. Since we focus on private information, we focus on price movements during day -14 to -1 before news announcements. We delete trading generated by brokers since we focus on foreign and domestic investors. We cumulate returns for each type of investors. Then we calculate percentage (proportion) of cumulative returns such as follows:

$$\text{Pct}_{i,j} = (\text{Cum Return}_{i,j} / \text{Total Cum Return}_i)$$

Subscript *i* and *j* refer to news announcements and types of investors. We further use regression analysis to test more formally the proposition that domestic investors account for larger price movement during the news announcements. Specifically, we use $\text{Pct}_{i,j}$ as dependent variable and a dummy with value of 1 for domestic and 0 for foreign investors. The variable $\text{Pct}_{i,j}$ creates heteroskedastic regressions; this problem leads to inefficient estimation. We weigh $\text{Pct}_{i,j}$ by absolute value of $\text{Total Cum Return}_i$ (Barclay and Warner, 1993). Under this specification, extreme values receive little weight in the regression analysis.

³ The Jakarta Stock Exchange is basically an order driven market without active market makers. But the transaction data codes transactions by brokers. The brokers seem to make up any imbalances in the market. In general, the role of the brokers is not significant.

This procedure reduces the heteroskedastic problem.

PRICE MOVEMENT BETWEEN DOMESTIC AND FOREIGN INVESTORS

1. Descriptive Statistics

Figures 1, 2, and 3 show cumulative abnormal return, daily trading volume, and daily number of transactions by investor types from day -30 to +30 relative to the event date. Figure 1 shows that prices start to move before the event. Interestingly, after the event prices still drifts upward, suggesting slow reaction of the market to the acquisition news announcements⁴. This upward movement toward the announcement is consistent with Barclay and Warner (1993). The result also shows that the Indonesian market seems to be ‘efficient’, in the sense that it responds to the news (see for example, Battacharya, 2000, for different

pattern in the case of emerging markets). The market becomes much more active during the event periods, as shown by large daily trading volume and number of transactions. Both domestic and foreign investors become more active during the event periods than in the non-event periods, although domestic investors seem to show higher increases than do foreign investors.

Descriptive statistics of cumulative returns during the event periods (day -14 to day -1) shows that domestic investors account for a much larger price movements than foreign investors; domestic investors account for about 186% versus 0.2% for foreign investors, or about 100% of total price movement if we convert into proportion. While the difference between domestic and foreign investors seems to be obvious, statistical tests do not show any significance at conventional level. The small sample seems to drive such insignificance.

Figure 1. Cumulative Abnormal Return during Announcement Periods



⁴ In the Indonesian case, the under-reaction issue has been relatively underexplored.

Figure 2 Daily Trading Volume by Type of Investors

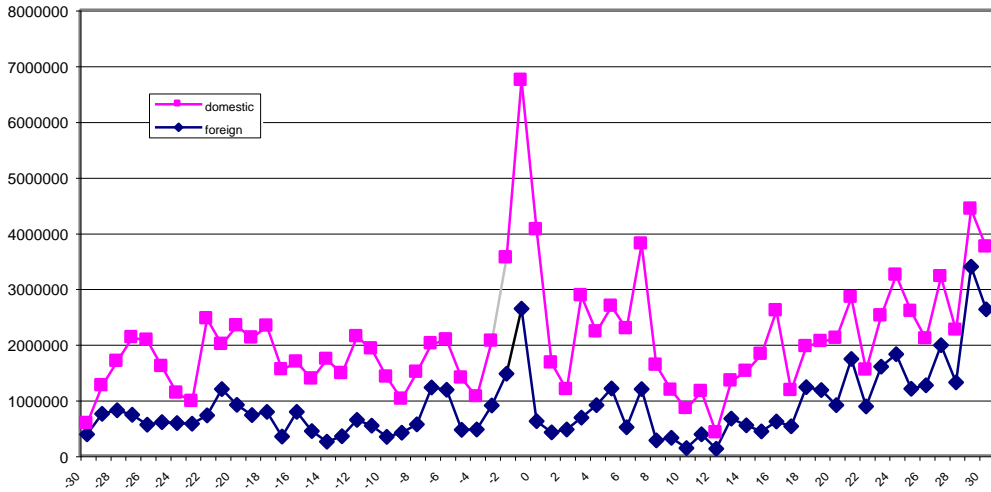
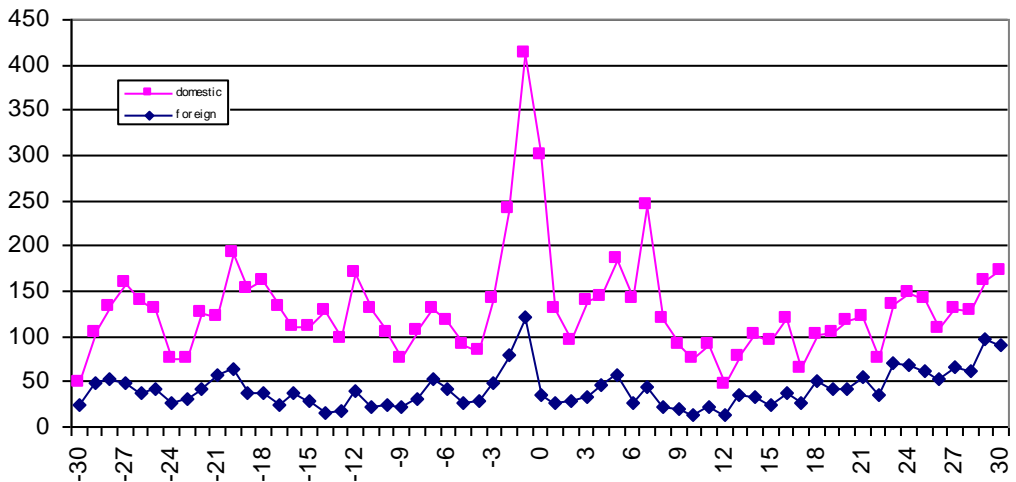


Figure 3 Daily Number of Transaction by Type of Investors



2. Regression Results

Regression analysis used to investigate more formally the difference between domestic and foreign investors. More specifically, the tests can be used to discriminate private and public information hypothesis. The private information hypothesis (by domestic investors

in this context) predicts a positive and significant coefficient for type of investors, while public information hypothesis predicts positive and significant coefficients for proportion of trading volume (Barclay and Warner, 1993).⁵ Table 1 shows the results of the analysis.

Table 1. The effect of type of investors, trading volume, and number of transactions on cumulative returns during the announcement periods

This table summarized regression of cumulative returns during the period of news announcement on several variables. Type of investor has a value of 1 for domestic and 0 for foreign investors. The definitions of other variables are explained in the text. ***, **, and * mean significant at 1%, 5%, and 10%.

	(1)	(2)	(3)	(4)	(5)
Intercept	-30.35 (-1.66)	-85.68 (-5.33)**	-84.19 (-4.71)***	16.27 (1.07)	12.73 (0.77)
Type of Investor	159.27 (6.24)***	-80.73 (-1.73)*	-130.32 (-2.07)*	74.44 (3.2)***	81.24 (3.2)***
Proportion of Trading Volume	-	3.48 (5.76)***	-	-	-
Proportion of Number of Transaction	-	-	3.95 (4.84)***	-	-
Proxy for Proportion of Trading Volume	-	-	-	3.48 (5.76)***	-
Proportion of Number of Transaction	-	-	-	-	3.95 (4.84)***
Adj-R-Sqr	0.61	0.81	0.77	0.81	0.77
Num of Obs	34	34	34	34	34

As discussed in the methodology section, all observations are weighted by absolute cumulative returns during the event periods. Regression (1) shows positive and significant sign for type of investors. This result confirms the results from informal analysis: domestic investors account for larger price movements during the event periods. This result also

supports the hypothesis of private information by domestic investors.

It will be interesting to contrast the two competing hypotheses above (public vs private information) by including the proportion of trading volume or number of transactions with cumulative returns. The combination of both

⁵ The term public information here seems to be awkward since we focus on price movements before the news become public (i.e. released). This term follows Barclay and Warner, 1993.

variables serves also for robustness tests for earlier result. If, by including the proportion of trading volume, we still obtain a positive and significant coefficient for investor type, then our conclusion that domestic investors move prices more than foreign investors is robust. The larger base of domestic investors does not seem to drive my earlier result.

Regression (2) of table 1 shows positive and significant coefficient for proportion of trading volume, but negative sign for type of investors. The result seems to support public information hypothesis. Non-public yet information seems to spread over the market, generating trading which is proportional to the cumulative returns. Regression (3) of table 1 uses the proportion of number of transactions in the same context as the proportion of trading volume. We obtain a similar result: a positive and significant coefficient for proportion of number of transaction and negative sign for type of investors.

Unfortunately the correlation between investor type and the proportion of trading volume is very high (about 0.9 and significant at 1% level). This clearly creates an econometric problem and helps explain inconsistency between signs for investor type and proportion of trading volume/number of transaction. To circumvent this problem, we create an orthogonal relationship between investor type and proportion of trading volume, by regressing proportion of trading volume on investor type. Then we use the residual from the regression as a proxy for the proportion of trading volume. This process creates an instrumental variable that has very high correlation with the proportion of trading volume, but is not correlated with investor type. We interpret the residual as an unexpected proportion of trading volume given investor types. Regression (4) shows the result using a proxy for proportion of trading volume. The regression shows positive and significant coefficients for both investor types and proxy for proportion of trading volume.

Regression (5) uses proxy for proportion of number of transactions. This variable serves the same function as provided by proportion of trading volume in regression (4). We obtain similar result as in regression (4).

Overall we find that domestic investors account for larger price movements during the event periods. Our findings do not rule out 'public information hypothesis'; both private and public information hypotheses seem to be supported.

3. Price Movements among different trade sizes

The second question we want to answer is the medium chosen by informed traders. Specifically, we investigate on which trade size the price movements concentrate. We divide trade size into three categories: (1) small trade size (up to 5,000 shares, or 10 lots), (2) medium trade size (from above 5,000 to 50,000 shares, or above 10 to 100 lots), and (3) large trade size (above 50,000 shares, or more than 100 lots).

Easley and O'Hara (1987) show that given information, informed traders choose large trade size to maximize their profit. Empirical findings by Barclay and Warner (1993) show that informed trades concentrate on medium trading size. The choice of medium trading size by informed traders seems to make sense. Informed traders will try to conceal their information from other traders or from related authorities (to avoid insiders trading charges).

Descriptive statistics shows that price movements concentrate on small and medium trading sizes. There is a monotonic inverse relationship between cumulative returns and trading size. The smallest, medium, and largest trading sizes accounts for about 85%, 71%, and 32% of cumulative returns, respectively. This pattern suggests that informed trades tend to choose small trading size. Unfortunately the F-tests do not reveal any statistical significance

on the differences among different trading sizes.

Table 2 shows the result of regression analysis using trade size as an independent variable. Regression (1) shows that the sign for trade size is as expected, that is a negative sign, but statistical power is very weak. Regressions (2) and (3) test public information hypothesis. The results do not support the hypothesis. Since correlation between trading

size and proportion of trading volume or number of transactions is very high (about 0.9 and significant at 1%), this paper attempts to create an instrumental variable using the same step as in the previous section. As in the previous section, we interpret the variables as unexpected proportion of trading volume/ number of transactions given the trading size. In general, we find weak results in the tables.

Table 2. The effect of trading size, trading volume, and number of transactions on cumulative returns during the announcement periods

This table summarizes regression of cumulative returns during the period of news announcement on several variables. Trading size of less than 5,001 shares has a value of 1, 5001-50,000 shares has a value of 2, and larger than 50,000 shares has a value of 3. The definitions of other variables are explained in the text. ***, **, and * mean significant at 1%, 5%, and 10%.

	(1)	(2)	(3)
Intercept	36.65 (2.11)**	31.07 (1.67)*	-39.85 (-0.84)
Trading Size	-1.31 (-0.16)	-2.69 (-0.32)	20.95 (1.39)
Proportion of Trading Volume	-	0.24 (0.82)	-
Proportion of Number of Transaction	-	-	0.95 (1.74)*
Adj-R-Sqr	0.33	0.33	0.35
Num of Obs	51	51	51

4. The Interaction between Investor Types and Trading Size

In this section, we attempt to answer the third question. There are several reasons to motivate this analysis. First, in an emerging market such as Indonesia, institutional players seem to be limited. Managed funds are still in early stage. We can expect individual investors to dominate domestic investors. Individual investors tend to trade in small trading size. Second, we expect foreign investors tend do be institutional investors, since only big players

are able to conduct cross-border investment. Hence we expect that institutional investors tend to dominate foreign investors.

Informal investigation shows that for domestic investors, small trades account for the largest price movements in the event periods. For foreign investors, medium trades account for the largest price movement in the event periods. To investigate more formally this conjecture, we use regression analysis. We create an interaction variable by multiplying investor types with trade size. We expect the

sign for the interaction variable to be negative and significant. The negative sign suggests that small trades of domestic investors and/or large trades of institutional investors account for the largest price movements in the event periods. Table 3 summarizes the findings.

Although the signs are generally as expected, statistical power seems to be weak. Only investor types variable has positive and significant coefficients, which is consistent with the findings from previous section.

Table 3. The effect of type of Investors, trading size, and the interaction between type of investors and trading size on cumulative returns during the announcement periods

This table summarizes regression of cumulative returns during the period of news announcement on several variables. Type of Investors has a value of 1 for domestic investors and 0 for foreign investors. Trading size of less than 5,001 shares has a value of 1, 5001-50,000 shares has a value of 2, and larger than 50,000 shares has a value of 3. The interaction variable is created by multiplying type of investors with trading size. The definitions of other variables are explained in the text. ***, **, and * mean significant at 1%, 5%, and 10%.

	(1)	(2)	(3)
Intercept	-57.47 (-0.44)	-105.6 (-0.81)	-105.49 (-0.81)
Type of Investors	78.63 (4.15)***	95.98 (4.75)***	91.88 (4.76)***
Trading Size	-1.62 (-0.44)	-9.08 (-1.82)*	-6.79 (-1.61)
Interaction between Type of Investors and Trading Size	-15.12 (-1.60)	-6.59 (-0.66)	-8.55 (-0.89)
Proxy for Proportion of Trading Volume	-	-76.04 (-2.17)**	-
Proxy fir Proportion of Number of Transaction	-	-	-85.07 (-2.37)**
Adj-R-Sqr	0.28	0.31	0.31
Num of Obs	92	92	92

5. Price Movement during the Non-event Period

To check further the robustness of the finding, we compare price movements in the event with those in the non-event periods. If domestic investors move prices more than do foreign investors in the non-event period, the finding can be generalized into the non-event period. The claim that domestic investors

possess better information can be made stronger if we find that the results from the event period are specific to that period. Specifically, the claim can be made stronger if the type of investor has either insignificant or significant negative sign. Non-event period is defined from day -120 to day -30 relative to the announcement periods. Table 4 summarizes the results for the non-event period.

Table 4. The effect of type of investors, trading volume, and number of transactions on cumulative returns during the non-event periods

This table summarized regression of cumulative returns during the period of news announcement on several variables. Type of investor has a value of 1 for domestic and 0 for foreign investors. The definitions of other variables are explained in the text. ***, **, and * mean significant at 1%, 5%, and 10%.

	(1)	(2)	(3)	(4)	(5)
Intercept	50.24 (2.65)**	-11.64 (-0.42)	29.28 (1.03)	90.33 (4.07)***	61.97 (2.77)***
Type of Investor	0.011 (0.00)	-193.7 (-2.70)**	-76.37 (-0.94)	-80.31 (-2.16)**	-23.48 (-0.66)
Proportion of Trading Volume	-	3.17 (2.87)***	-	-	-
Proportion of Number of Transaction	-	-	1.18 (0.99)	-	-
Proxy for Proportion of Trading Volume	-	-	-	3.17 (2.87)***	-
Proportion of Number of Transaction	-	-	-	-	1.18 (0.99)
Adj-R-Sqr	0.25	0.38	0.25	0.78	0.25
Num of Obs	36	36	36	36	36

Investor type has either insignificant or negative coefficients in all specifications (including those that adjust for multicollinearity problem). The result seems to support our conclusion that only in the announcement periods domestic investors account for larger price movements hence strengthen our claim that domestic investors possess better information. We discuss more detail this issue in the next section.

6. Discussion

We establish a fact that domestic investors account for larger movement during the announcement periods. Why do domestic investors account for the larger price movements in the event periods? One possible interpretation is that the larger movements by

domestic investors simply reflect the larger base of domestic investors. Although it is not necessary that more investors generate larger positive returns, such argument is plausible. To test for such possibility, we conduct two tests: (1) Control proportion of trading volume and number of transaction for each type of investors, and (2) Compare price movements in the event and non-event periods. In the first test, we still find that domestic investors account for the larger price movement, even after controlling for the possibility of larger base by domestic investors (we use proportion of trading volume/number of transaction for proxies for the size of investors base). In the second test, we find that domestic investors account for the larger price movements in the event but not in the non-event period. The two

tests seem to imply that larger investor base is not a reason for the finding of this paper.

Another possible interpretation is that domestic investors possess better information than do foreign investors. Investors with information are more likely to move prices up to the point where marginal cost of information is equal to marginal benefit of the information. This line of reasoning is consistent with Barclay and Warner (1993) and Chakravarty (2001). One may have skepticism to this line of reasoning. First, in the Indonesian market, individual investors seem to dominate the market. Although we do not have data, domestic investors seem to be dominated by individual investors. Price movements in such market may reflect noise, rather than information. To address such skepticism, we propose the following arguments. First, it is not uncommon to have certain class of investors, including individual, to have superior information. For example, Muelbroek (1992) investigates private information in the US market. She finds that in many cases of insider trading, individuals are involved. Second, we condition price movement on real events (that is merger announcements). Thus the price movements we investigate are not based on false rumors. The two arguments lead us to a conclusion that domestic investors may have better information as reflected on their larger price movements. A compromise to skepticism at one extreme and our argument at another extreme is that part of domestic price movement reflects information while other part reflects noise. Thus we have to separate the two behaviors (noise and information related). We leave this issue for further research.⁶

Another related argument to the 'noise story' by domestic investors is that foreign investors may focus more on long-term investment, such as investment based on

fundamentals, while domestic investors focus more on short-term trading. For example, Grinblatt and Keloharju (2000) show that foreign and domestic investors tend to have different trading behaviors: foreign investors are momentum traders, while domestic investors are contrarian traders. This explanation is plausible to the extent that the profit from short-term trading is too small for foreign investors to exploit. Beyond that assumption, it is hard to reconcile this argument with an efficient and competitive market in which investors pursue profit objectives. If we follow this argument (different behaviors), then the explanation must come from behavioral finance. The evidence in this paper shows that foreign investors also participate in the non-public yet information. This evidence tends to weaken the argument that foreign investors focus on the long-term investment.

Another related puzzle is why foreign investors invest in a market where they have information disadvantage. Our observation shows that foreign investors participate in the non-public-yet information, as evidenced by increasing trading activities by foreign investors. Thus, although we conclude that domestic investors have better information advantage –thus there is information asymmetry in the JSX market –, but degree of information asymmetry may not as serious as we thought. Another possible reason of why they invest in the JSX relates to international diversification potential. International diversification may result in lower cost of capital. Thus foreign investors may be willing to obtain lower return because they also have lower systematic risk.

CONCLUSION

This paper attempts to investigate the issue why domestic investors account for larger

⁶ We may control some measures of noise trading such herding and feedback trading. Thus price movements net of noise measures can be interpreted as price movements that reflect information.

price movements during the event periods. We document that domestic investors account for the larger price movements during the event periods. We interpret that the larger proportion by domestic investors reflects information superiority, hence information asymmetry in the Indonesian market. We do not find convincing evidence that informed trades focus on small trades. We do not find convincing evidence that there is an interaction between type of investors and trading size: domestic investors focus on small trades. Although informal analysis and the sign of regression coefficients tend to support our prediction that informed trades concentrate on small trades and domestic investors concentrate on small trades, but the prediction is not significant statistically. Our findings have various theoretical and policy implications.

REFERENCES

- Bailey, W. and J. Jagtiani, 1994, Foreign Ownership Restrictions and Stock Price in the Thai Market, *Journal of Financial Economics* 36, 57-87.
- Barclays, Michael and Jerold B Warner, 1993, Stealth Trading and Volatility, Which Trades Move Prices, *Journal of Financial Economics* 34, 281-305.
- Berkman, Henk and Vankat R. Eleswarapu, 1998, Short-term traders and liquidity: a test using Bombay Stock Exchange data, *Journal of Financial Economics* 47, 339-355.
- Bhattacharya, Utpal, Daouk, Hazem, Jorgenson, Brian, and Kehr, Carl-Heinrich, 2000, When an event is not an event: The Curious Case of an Emerging Market, *Journal of Financial Economics* 55, 69-101.
- Bonser-Neal, Catherine, David Linnan, and Robert Neal, 1999, Emerging Market Transaction Costs: Evidence from Indonesia, *Pacific-Basin Finance Journal* 7, 103-127.
- Chakravarty, Sugato, 2001, Stealth-trading: Which traders move stock prices?, *Journal of Financial Economics* 61, 289-307.
- Cooper, I.A., and E. Kaplanis, 1994, What Explains the Home Bias in Portfolio Investment, *Review of Financial Studies* 7, 45-60.
- Coval, J.D, and Tobias Moskowitz, 1999, Home Bias at Home: Local Equity Preference in Domestic Portfolios, *Journal of Finance* 54, 2045-2073.
- Dahlquist, Magnus, and Goran Robertsson, 2001, Direct Foreign Ownership, Institutional Investors, and Firm Characteristics, *Journal of Financial Economics* 59, 413-440.
- Domowitz, Ian, Glen, J, and Ananth Madhavan, 1997, Market Segmentation and Stock Prices: Evidence from An Emerging Market, *Journal of Finance* 52, 1059-1085.
- Easley, David and Maureen O'Hara, 1987, Price, Trade, Size and Information in Securities Markets, *Journal of Financial Economics* 19, 113-138.
- French, Kenneth and Richard Roll, Stock Return Variances, 1986, The Arrival of Information and Reaction of Traders, *Journal of Financial Economics* 17, 5-26.
- Grinblatt, Mark and Matti Keloharju, 2000, The Investment Behavior and Performance of Various Investor Types: A Study of Finland's Unique Data Set, *Journal of Financial Economics* 55, 43-67.
- Grinblatt, Mark and Matti Keloharju, 2000, How Distance, Language, and Culture Influence Stockholdings and Trades, *Journal of Finance*.
- Hau, Harald, 2001, Location Matters: An Examination of Trading Profits, *Journal of Finance*, forthcoming.
- Johnson, Simon, Peter Boone, Alasdair Breach, and Eric Friedman, 2000, Corporate Governance in the Asian

- Financial Crisis, *Journal of Financial Economics* 58, 141-186.
- Kang, Jun-Koo and Rene M Stulz, 1997, Why Is There a Home Bias? An Analysis of Foreign Portfolio Equity Ownership in Japan, *Journal of Financial Economics* 46, 3-28.
- Lee, Yi-Tsung, Ji-Chai Lin, and Yu-Jane Liu, 1999, Trading Patterns of Big versus Small Players in Emerging Market: An Empirical Analysis, *Journal of Banking and Finance* 23, 701-725.
- Merton, R.C., 1987, A Simple Model of Capital Market Equilibrium with Incomplete Information, *Journal of Finance* 42, 483-510.
- Meulbroek, Lisa, K, 1992, An Empirical Analysis of Illegal Insider Trading, *Journal of Finance* 47, 1661-1699.
- Rachmawati, Eka Nuraini and Eduardus Tandililin, 2001, Pengaruh Pengumuman Merger dan Akuisisi Terhadap Return Sama Perusahaan Target di Bursa Efek Jakarta, *Jurnal Riset Akuntansi, Manajemen, dan Ekonomi Vol 1, No.2, 153-170.*
- Shapiro, Alan, 2002, *Foundation of Multinational Financial Management*, Wiley, Boston.
- Shukla, Ravi, and Gregory van Inwegen, 1995, Do locals Perform better than Foreigners? An Analysis of UK and US Mutual Fund Managers, *Journal of Economics and Business* 46, 241-254.
- Stulz, R.M., 1981, On the Effect of Barriers to International Investment, *Journal of Finance* 36, 923-934.
- Stulz, R.M. and W. Wasserfallen, 1995, Foreign Equity Investment Restrictions, Capital Flight, and Shareholder Wealth Maximization: Theory and Evidence, *Review of Financial Studies* 8, 1019-1057.