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## THE EFFECT OF FOREIGN FUND FLOW AND TRANSACTION ACTIVITY ON THE VOLATILITY AND PERFORMANCE OF THE INDONESIAN CAPITAL MARKET

**Abstract:** This study aims to analyze the direct and indirect effects of net foreign and transaction activities on the volatility and performance of the capital market. The study was conducted on the Indonesia Stock Exchange with the research sample of historical data for the 2009-2018 periods which was officially requested to the Indonesia Stock Exchange. Those data were analyzed using Path Analysis with the Partial Least Square (PLS) method. The results showed that foreign fund flow directly had a significant positive effect on capital market performance. Meanwhile, stock price volatility had a significant negative effect on capital market performance. Indirectly, volatility positively and significantly mediated the relationship between foreign fund flow and capital market performance. Furthermore, any significant results could not be found in the transaction activity variable, either a direct or indirect relationship with the performance of the capital variable. Volatile market conditions needed attention since they tended to harm investment returns. The magnitude of the dominance of foreign ownership of funds in the capital market tended to have an impact on the high dependence of capital market fluctuations and stock performance on foreign investor activities. However, the high level of foreign funds entering the market and the high level of volatility pushed stock returns to be more optimal for investors. The feasibility of the research model was indicated by the Q-Square value for stock price volatility of 0.117 and the capital market performance of 0.144 indicating that the predictive relevance of this research model was very good.

**Key words:** Foreign fund flow, Transaction Activity, Volatility, Capital Market Performance.

**Language:** English

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### Introduction

The capital market is an instrument used to enhance a country's economy and is a means of investment for the community. In terms of economy, the capital market provides long-term access to funding for companies that need funds for business development. Meanwhile, in terms of the community, the capital market acts as an intermediary for them to be able to invest their funds in these companies. It is expected that the flow of investment funds from the public through the capital market might help the growth and development of a company's business. Thus, this will also encourage economic growth and development in a country.

The public or investors who invest through the capital market are not only domestic investors but also investors from abroad (foreign). Access is allowed for foreign investors to participate in investing in the country due to the limited funds that might be absorbed from domestic investors to meet the demands of companies listed on the capital market. Meanwhile, the provision of investment access for foreign investors might cause the flow of foreign funds to the capital market to be unlimited.

The capital market is a very liquid investment instrument where investors can bring in and out their funds quickly. Thus, it will affect the formation of share prices in the market. The existing studies on volatility and stock price formation only examined the fundamental factors which might provide an answer to be a phenomenon of long-term investment decisions. Fluctuations in stock price movements that occur in a relatively fast time reflect the existence of investors' behaviors that are not only oriented towards long-term but also short-term investments. Additionally, the flow of foreign funds out of the capital market also caused a decrease in the share of foreign investors' ownership of funds in the Indonesian capital market.

The outflow of foreign funds needs to be seen in its effect on the volatility and performance of the capital market to find out how much risk and capital market performance is affected by foreign investors. Thus, an empirical investigation was conducted in this study by answering the following key questions:

- Do foreign fund flow and transaction activity directly affect the volatility and performance of the capital market?
- Do foreign fund flow and transaction activity have an indirect effect on capital market performance through volatility?

These questions have repeatedly attracted the interest of investors, economists, and policymakers, and are asked with greater urgency during times of financial turmoil or changes in the distribution of capital flows. The answers to the above questions often leave a negative impression on foreign investors. Accordingly, there is an argument that foreign fund flow causes an overreaction to prices and might spread

to other things. Whereas in an efficient market, it is known that capital flow is only one of the processes by which information is included in an asset price.

### Theoretical Review

#### Volatility

Volatility in financial markets describes the fluctuation in the value of an instrument over a certain period. In statistics, volatility is defined as the change in the value of the fluctuation against the average of a financial time series. The existence of volatility might increase the risk and uncertainty faced by market players. Thus, market players' interest in investing becomes unstable. One of the ten principles of financial management states that investors will not want to take a higher risk unless they can get compensation in the form of a higher return (high risk, high return) (Known, 2003). Moreover, the existence of volatility also has an impact on the existence of global financial markets since it is related to the idea of risk.

A way to measure volatility is to use a standard deviation, which describes how closely the price of a stock can be grouped around its mean or moving average. In a tight market, the standard deviation is very low. Meanwhile, in the loose market, the standard deviation will be relatively high.

The types of volatility often observed in the stock market are stock price volatility and stock return volatility. Stock price volatility describes changes in the closing price of a stock or a stock index that occurs during a certain period of observation. Changing stock closing prices can occur due to internal and external factors (Ajireswara, 2014). Internal factors that cause fluctuations in closing prices are related to the issuers of the shares concerned, for example, a change in the company's profit rate. Furthermore, it is also seen from the external factors that occur, such as shocks that occur on the foreign stock market, macroeconomic factors such as exchange rates and interest rates, as well as the existence of issues developing in the stock market itself. The volatility of stock prices is very important to observe for investors, for it is the basis for calculating the volatility of stock returns. The volatility of stock returns describes the fluctuation in the difference in daily observed prices within a certain observation period.

According to Schwert and W. Smith, Jr (1992), there are five (5) kinds of volatility in financial markets, namely:

#### 1) Future Volatility

Future Volatility is what traders in financial markets want to know.

#### 2) Historical Volatility

To know the future, it is necessary to study the past. This is done by making modeling with pricing theory based on previous data to predict future volatility.

#### 3) Forecast Volatility

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Just as there are services that attempt to predict the future direction of the price of a contract, there are services that attempt to predict the future volatility of a contract.

#### 4) Implied Volatility

Implied volatility is the volatility that should be included in the theoretical pricing model to produce a theoretical value identical to the option price in the market.

#### 5) Seasonal Volatility

Certain agricultural commodities, such as corn, beans, soybeans, and wheat, are very sensitive to volatility factors that arise from bad season weather conditions.

One of the fluctuations in the value of an instrument in the stock market can be caused by the influence of irrational factors that affect the demand and supply of a market (Maskur, 2009). This irrational factor can be in the form of rumors that are developing in a market, following dreams or what others say, or the existence of price games. An efficient market is a stable market, which fluctuates due to irrational actions, is removed. Measurement of stock price volatility is useful for showing whether the asset is excessive movement of irrational market players, in which speculators and investors' frenzy (emotional) regulate or influence share prices. Thus, the movement of shares does not occur due to fundamental reasons. High and continuous volatility in a market indicates that the stock market is influenced by speculators and investor frenzy.

### Foreign Investment

Investment in essence is the placement of several funds at this moment to obtain profits in the future. In general, investment is divided into two, namely financial asset investment and real assets investment. Financial asset investment is carried out in the money market, for example in the form of certificates of deposit, commercial paper, money market securities, and others. Investment can also be made in the capital market, for example in the form of stocks, bonds, warrants, options, and others. Meanwhile, investment in real assets can be in the form of purchasing productive assets, establishing factories, opening mining, opening plantations, and others (Halim, 2005).

From origin or source of investment, the investment can be divided into domestic investment and foreign investment. Foreign investment that enters a country can also be in the form of investment in financial assets (portfolios) and investment in real assets (foreign direct investment). Foreign Direct Investment is an investment in assets or factors of production to conduct business. For example, investment in plantations, fisheries, factories, shops, and other types of business. In general, in everyday

speech, this kind of investment is also called investment in real assets, or investment that is clear and easy to see. Besides, this direct investment generates a large multiplier effect on the wider community. This direct investment also has a backward impact, in the form of business input, and the future, in the form of business output that is an input for other businesses. Meanwhile, foreign nondirect investment is an investment in financial assets, not in assets or production factors. Examples of non-direct investment include deposits, investment in securities, such as stocks and bonds, commercial paper, mutual funds, and so on. Investments in these financial assets are also intended to obtain future benefits. The future benefits of this investment are better known as investment returns, or to simplify it is called interest.

### Risk and Return Theory

Home and Wachoviz (1998) define return as "benefit which related with the owner that includes cash dividend last year which is paid together with market cost appreciation or capital gain which is a realization at the end of the year". According to Jones (2000), "Return is yield and capital gain (loss)". Yield is cash flow paid periodically to investment holders. Meanwhile, capital gain (loss) is the difference between the price of an investment at the time of purchase and the price at the time of sale. Based on the above definitions, it can be concluded that return is the gain (loss) obtained from the amount of cash flow (dividend) when holding an investment with the gain (loss) obtained when selling the investment. In selecting and evaluating investment instruments in the future, every investor will face uncertainty for a return that will be obtained is not something that is truly certain. Many factors play a role behind it all. Therefore, investors will pay attention to the expected return of the investment that will be made in the future. The return from an investment is influenced by both internal and external factors. Internal factors that come from within the company, if in bond investment such as company performance, the risk of default are the company. Meanwhile, external factors come from outside the company or matters related to macroeconomic conditions.

According to Reily (2000), "risk is the uncertainty that investment will earn its expected rate of return". Risk is the uncertainty of an investment that will be obtained with the expected return. Keown (2005) defines "risk as the likely variability associated with expected revenue or income streams". Risk is the possibility of the variability of the resulting returns. Based on the above understanding, it can be concluded that risk is the deviation that occurs between factual return and expected return.

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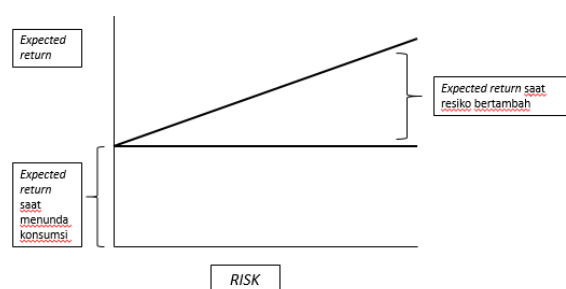


Figure 1. Risk-Return Theory

Figure 1 visualizes that risk and return have a direct and linear relationship. According to Keown (2005), ten principles underlie the learning of financial management. The first of these ten principles is “The Risk-Return Theory: We won’t take on additional risk unless we expect to be compensated with additional return”.

This principle explains that the expected rate of return reflects the level of risk of the investment concerned whether a form of investment has a higher risk or vice versa. In selecting an investment instrument, investors will look for instruments that can compensate for their risk that exists in the investment instrument. Risks can be divided into two types:

1. Systematic risk is the risk that cannot be avoided through diversification or the formation of a portfolio of some assets. This risk is related to general market conditions, for example, changes in the macroeconomy, interest rate risk, political risk, inflation risk, exchange rate risk, and market risk.

2. Unsystematic risk can be avoided or minimized by diversifying the formation of a portfolio of several assets.

### Financial Behavior Theory

At first, investors did not only use estimates of the prospect of investment instruments in investing but also psychological factors determined the investment. Various parties stated that this investor psychology factor has the greatest role in investing. One interesting example is the presence of bounded rationality in investing. An example of this bounded rationale is that investors always invest irrationally, for example, an investment manager offers an investment with a return rate of 12% per year and a friend of an investor offers the same investment with a return rate of 11% per year and the investor chooses an investment offered by the investment manager than the one offered by his friend. On the other hand, investors sell their shares as soon as possible if they appear to be profitable and hold the shares for a very long time when the stock price drops (Shefrin, 1981). This case shows that investors do not want to experience losses on their investment. Shares that have dropped are not sold until the shares rebound to

get a little profit and then sell them. Various investment textbooks state that stocks are a long term investment. There has even been a study that states that holding shares in the long term is the same as trading the stock in the same period as holding the stock in the long term.

The existence of these psychological factors affects investment and the results to be achieved. Therefore, investment analysis that uses psychology and financial science is known as behavioral finance. Shefrin (2000) defines behavioral finance as a study that studies how psychological phenomena affect financial behavior. The behavior of the stock players is where Shefrin (2000) states the level of behavior of the practitioners. Nofsinger (2001) defines behavioral finance as a study of how humans behave in a financial setting. In particular, it is a study of how psychology affects financial, corporate, and financial market decisions. The two concepts described clearly state that behavioral finance is an approach that explains how humans invest or deal with finance is influenced by psychological factors.

This financial behavior began to be known by various parties, especially academics after Solvic (1969 and 1972) put forward the psychological aspects of investing and the stockbroker. Tversky and Kahneman (1974) suggested an assessment of uncertain conditions that could produce heuristics or bias. Kahneman and Tversky (1979) also suggested prospect theory followed by in 1992 on advanced prospect theory Thaler (1981) suggested on mental accounting; Shefrin (1981, 2000) published various papers on the development of financial behavior and a book entitled *Beyond Greed and Fear*. Bondt (1998) describes the portrait of an individual investor while Statman (1995), Golberg and Nitzsch (1999), and Forbes (2009) describe behavioral finance.

### Portfolio Investment Theory

Based on United Nations Conference on Trade and Development (UNCTAD, 1999), portfolio investment involves the transfer of financial assets utilizing investments made by residents through individuals, companies, or institutions in one country in the securities of another country, either directly in the form of corporate assets or indirectly through

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financial markets. The main objective of investors to invest in portfolios is to get benefits in the form of capital gains and to reduce the risk of portfolios held by investors by diversifying internationally.

Sunariyah (2006) argues that a portfolio is a series of combinations of several invested assets. Portfolio theory is a theory that analyzes how to choose a combination of assets based on the risk of wealth types, both in the form of physical assets and securities. The higher the risk of an investment, the higher the level of profit obtained.

Foreign portfolio investment can also be referred to as a short-term investment. In international capital flows, this portfolio investment takes the form of investing in financial assets, such as stocks and bonds. The type of investment consists of controlling shares that can be transferred to several countries.

The issuance of shares is intended to fulfill or obtain funds for the continuity of a company's business. Companies can expand their business scale by providing capital obtained through buying shares fulfilled by investors. Corporate investors are in a large scope than individual investors, but they perform the same function. Investors buy and manage assets for profit.

According to Mishkin (2008), the factors that influence someone to buy an asset are as follows:

1. Wealth influences since if a person's wealth increases, he will have more resources to buy assets.
2. Expected Return is expected results obtained by holding the asset.
3. Risk is a degree of uncertainty associated with an asset relative to other assets.
4. Liquidity is how quickly and easily an asset is converted into cash.

Therefore, all the actions of a person conducted in holding an asset, related to the purpose of investing, will be based on the four factors mentioned above. Whereas an asset is something possessed which is a deposit of wealth or value in the form of a stock asset.

### Market Efficiency Theory

According to Bodie (2005), the efficient market hypothesis is when the stock price reflects all available information. Fama (1978) defines Efficient Market Hypothesis (EMH) as a theory that explains how the price of a market is formed due to new information responded to by investors and can be categorized into three, namely:

- a. The efficient market hypothesis is weak when the stock price reflects all the information available in the market such as historical prices, trading volume, and short-term interest rates.
- b. An efficient market hypothesis is a semi-strong form when all publicly available data relating to the firm's prospects should already be reflected in market prices. The data in question is the weak version of the data used plus the company's fundamental data,

management quality, earnings predictions, and company balance sheet information.

The efficient market hypothesis forms a strong one when all the information related to the firm, whether published or unpublished, should already be reflected in the market price. This kind of market is what investors expect to get the expected profit.

### Hypothesis

Following the background of the study, problem formulation, research objectives, theoretical review, and framework, hypothesis testing can be formulated as follows:

*H1: Foreign Fund Flow affects Capital Market Performance*

*H2: Transaction activity affects the Performance of the Capital Market.*

*H3: Stock Price Volatility affects Capital Market Performance*

*H4: Volatility of share prices mediates the relationship between Net Foreign Fund Flow and Capital Market Performance*

*H5: The volatility of share prices mediates the relationship between Transaction activity and Capital Market Performance*

### Research Method

#### Types And Sources Of Data

The data used in this study were secondary data related to the variables studied. Secondary data is data collected indirectly from the source. Secondary data has usually been collected by data collection agencies and published to the data user community. The data are quantitative in the form of numbers which are then processed and interpreted to obtain meaning from the data. This study employed historical data taken during the 2009-2018 period. The data were obtained from the Indonesia Stock Exchange through its site [www.idx.co.id](http://www.idx.co.id).

#### Data Collection Method

The data collection method utilized in this study was the documentation method, namely by collecting, recording, and reviewing secondary data published through the official website of the Indonesia Stock Exchange and data specifically requested by the Indonesian Stock Exchange authorities. The data collected were the flow of foreign fund transactions in the capital market, the number of transactions, and the movement of the IDX Composite value obtained by direct quoting or processed from the Indonesia Stock Exchange.

#### Operational Definition of Variables and Measurement

The dependent variable used in this study was the capital market performance. Capital market performance was measured through the rate of return on the Indonesia Composite Index (IDX Composite).

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Indonesia Composite Index is a type of index that uses all shares of issuers listed on the IDX. According to Jogyanto (2015), stock index return can be calculated by the following formula:

$$R_t = \frac{Index_t - Index_{t-1}}{Index_{t-1}}$$

Description:

$R_t$  = IDX Composite Return on the t-day

$Index_t$  = IDX Composite on the t-day

$Index_{t-1}$  = IDX Composite price on the previous day (t-1)

Independent variables in this study were the Net Flow of Foreign Fund (X1) and Transaction Activity(X2).

1. Net Flow of Foreign Fund (*Net Foreign*)

Net foreign is the net transaction value made by the foreign investor. If a purchase transaction conducted by a foreign investor is greater than the selling transaction, it means that a net inflow of foreign transactions made by the foreign investor is smaller than the value of the sale transaction. Thus, there will be a net outflow of foreign funds, known as Net Sell. The value of the net foreign can be formulated as follows:

Net Foreign = Total Foreign Buy – Total Foreign Sell

2. Transaction Activity

Transaction activity is measured by looking at the number of transaction frequencies in a period that occurs on the Indonesian stock exchange. This number of frequencies is obtained by taking detailed trade data on the Indonesia Stock Exchange. Mathematically, the amount of transaction activity can be calculated by the following formula: Transaction Activity = Total Freq. Stock Transaction by Investors' F+D (**sell+buy**)

This study was mediated by the volatility of stock prices which was an indicator for measuring investment risk. The volatility of stock prices in this study was included in the historical volatility type since the researchers used historical data regarding the IDX composite from the 2009-2018 period. Mathematically, historical volatility can be calculated using the following formula (Parkinson, 1980):

$$\sigma_{PV} = \sqrt{\frac{1}{n} \sum \ln \left( \frac{Hi}{Li} \right)^2}$$

**Description:**

$\sigma_{PV}$  = High-Low Volatility Estimator

ln = Natural logarithm

n = Number of observations

Hi = Monthly High Price

Li = Monthly Low Price

**Data Analysis Method**

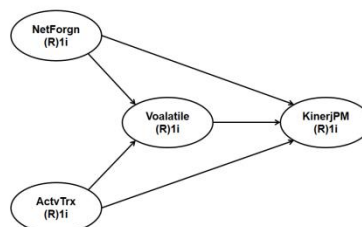
Descriptive analysis was carried out to obtain an empirical description or descriptive of the data collected in the study. The data were processed by grouping, tabulating, processing to obtain descriptive data including average, maximum, and minimum values, and then given an explanation.

Inferential statistics (inductive statistics or probability statistics) are data analysis techniques used to determine the extent to which the results obtained from a sample are similar to the results obtained in the population as a whole. Under the formulated hypothesis of the study, inferential statistical data analysis was measured using the Warp-PLST (Partial Least Square) software starting from the measurement model (outer model), the structure model (inner model), and the hypothesis testing. PLS assumes that the research data is distribution-free, meaning that the research data does not refer to one particular distribution (for example, the normal distribution). PLS is an alternative method of SEM that might be used to solve the problem of relationships between complex variables. However, the data sample size of PLS is small (30 to 100), considering that SEM has a minimum data sample size of 100.

**Findings And Discussion**

**Structural Model**

Before analyzing the data, the empirical research model was tested or evaluated in advance. The results of testing or evaluating the structural model in this study obtained the results of the path diagram visualized in Figure 2 below:



**Figure 2. Research model**

**Evaluation of Structural Model Goodness of Fit (Outer Model)**

The structural model in PLS was evaluated using the coefficient of determination ( $R^2$ ) and the Q-squared

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value. Table 1 below presents in detail the results of the structural model evaluation.

**Table 1. Coefficient of Latent Variables**

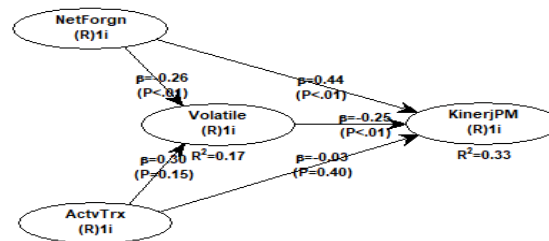
Coefficient	CM Performance	NetForgn	ActvTrx	Volatile
Full Collinearity VIFs	1.349	1.363	1.075	1.09
R <sup>2</sup>	0.147			0.16
Q-Squared	0.144			0.11

The coefficient of determination (R<sup>2</sup>) shows the percentage of variance in endogenous constructs that can be explained by exogenous constructs. The higher the coefficient of determination (R<sup>2</sup>) indicates the better the prediction model of the proposed research model (SholihinandRatmono, 2013). Table 1 above shows that the endogenous construct of stock price volatility (Volatile) had a coefficient of determination (R<sup>2</sup>) of 0.166. Indicates that the variance of the endogenous variable of stock price volatility can be explained by 16.6% by the variance of exogenous variables, net foreign (NetForgn), and transaction activity (ActvTrx). Meanwhile, the endogenous construct of capital market performance (CM Performance) had a coefficient of determination (R<sup>2</sup>) of 0.147 indicating that the construct can only be explained by an exogenous construct of 14.7% 14.7% which means very weak.

Meanwhile, to see predictive relevance, researchers employed the Q-Squared value. This value should be greater than zero to indicate that the exogenous latent variable has predictive relevance to the affected endogenous latent variable (SholihinandRatmono, 2013). The Q-Squared value shown in the table above was 0.117 for stock price volatility and 0.144 for capital market performance, indicating that the predictive relevance of this research model was very good.

### Hypothesis Testing and Research Discussion

The hypotheses in this study were tested using a structural equation model with the partial least square method (SEM-PLS). The following figure presents the results of the evaluation of the proposed research model.



**Figure 3. Result of Research Model Evaluation**

There were five hypotheses proposed in this study. The support of the research hypothesis was determined by looking at the path coefficient values,

standard errors, P-values, and effect sizes of the results of the analysis. Details of the results of hypothesis testing can be seen in the following table:

**Table 2. Path Coefficients, P-Values, Standard Errors, and Effect size**

No	Variabel	Koefisien Jalur	P-Values	Standard errors	Effect Size
1	NetForgn → Volatile	-0.263	0.005*	0.100	0.072
2	ActvTrx → Volatile	0.302	0.153	0.294	0.094
3	NetForgn → KinerjaPM	0.476	≤0.001***		
4	ActvTrx → KinerjaPM	-0.156	0.089		
5	Volatile → KinerjaPM	-0.384	≤0.001***	0.110	0.147
6	NetForgn → Volatile → KinerjaPM	0.101	0.034*	0.055	0.053
7	ActvTrx → Volatile → KinerjaPM	-0.116	0.181	0.127	0.019

\* Signifikan pada level 0.05 (2-tailed)  
 \*\* Signifikan pada level 0.01 (2-tailed)  
 \*\*\* Signifikan pada level 0.001 (2-tailed)

Based on the details of the table, several research results were found as follows:

1. Directly, net foreign had a positive and significant relationship to capital market performance (CM Performance). This is indicated by the path

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coefficient value of 0.476 and the p-value of <0.001 (less than 0.05). This result is in line with previous studies including a study by Adaoglu and Salih (2013) which found a causal relationship between foreign fund flow and the rate of return on the EU capital market. Seen and compared with the data on the composition of capital ownership in the Indonesia stock exchange dominated by foreign investors, the statistical results of this path analysis support the previous descriptive analysis. Along with the large composition of their own in the Indonesian capital market, foreign investors tend to be more careful in choosing which stocks to choose for their investment portfolios and will be oriented in the long term. Investing in the short term will only increase the volatility of the market and this is unlikely to provide a large return for long-term investors.

2. Furthermore, it was found that the transaction activity variable had a negative and insignificant relationship with the capital market performance variable, as indicated by the path coefficient value of -0.156 and p-value of 0.089. Similar results are found in a study conducted by Sana, Hsieh Hui-Ching (2014) which stated that the transaction volume cannot directly explain the effect on stock returns. High transaction activity reflects the behavior of investors who make transactions in the short term, which can be in the time frame of minutes, hours, days, and weeks. This kind of market participants is known to have a desire to get relatively high profits. Thus, they will choose a strategy on how to get profit by getting a thin spread/difference in selling and buying prices but with a large number of transaction frequencies. Therefore, even though they only invest in the short term, accumulated within 1 month the rate of return obtained might be relatively large. This condition, trader's behavior, could not be measured using the operational method of the capital market performance variables in MoM as used in this study. Thus, in the future, it is expected that there will be research that can explain the behavior of traders to obtain more relevant results in explaining the relationship between transaction activity and capital market performance.

3. The volatility variable of stock prices had a negative and significant relationship to the performance of the capital market with a path coefficient of -0.384 and a p-value of <0.001 (less than 0.05). The effect size values was 0.147 classified as moderate according to the opinion of Sholihin and Ratmono (2013). The negative relationship that occurs between stock price volatility and the performance of the capital market in Indonesia reflects that the Indonesian market is still in a developing stage. This means that investors with a short-term (daily) orientation still dominate and cause high volatility in the market. As the results of a study conducted by Richard, A. Michelfelder, and Saurin Pandya (2005) found that emerging markets have higher volatility but have lower shock

persistence than mature markets. Thus, this has an impact on a higher daily rate of return on developing countries. These results also indicate a similarity between market conditions in Indonesia and other developing countries as well such as India, where global factors tend to have a similar impact on the level of volatility and stock returns in these two countries.

4. Meanwhile, the indirect relationship between net foreign fund flow and capital market performance mediated by stock price volatility showed a positive and significant relationship. This is indicated by the path coefficient value of 0.101 and the p-value of 0.034. Meanwhile, the effect size of 0.053 was considered weak. It can be interpreted that the volatility of share prices mediated the indirect relationship between net foreign and capital market performance. Foreign investors who have a long-term investment orientation might make decisions based on considerations of future business fundamental factors compared to technical factors, the momentum of stock movements. However, the high stock price volatility provides opportunities for foreign investors to enter and exit the market easily to provide a more optimal investment return. Foreign investors can easily buy shares at a low price and sell their shares at a higher price due to the encouragement of high levels of market liquidity. This is possible if market liquidity occurs normally without a market maker. Normal market liquidity is driven by access to information easily accepted by investors, in line with technological advances in this digital era. On the other hand, the liquidity created by market makers is usually caused by conditions was not all investors have easy access to information. Thus, many investors make their investment decisions based on the decisions of other investors or go along with them. This phenomenon occurred before the digital era, where the means of information about the market came from print media such as newspapers and business magazines which reach was still quite limited.

5. Furthermore, the indirect relationship between transaction activities on capital market performance mediated by stock price volatility showed a negative and insignificant relationship. This is indicated by the path coefficient value of -0.116 and the p-value of 0.181. Meanwhile, the effect size was 0.019 considered weak. Thus, it can be concluded that volatility does not mediate the relationship between transaction activity and capital market performance.

## Conclusions And Suggestions

### Conclusion

This study is an empirical study to provide evidence about the impact of foreign fund flow and transaction activity that occur in the Indonesian capital market on the level of stock price volatility and capital market performance. The researchers developed a



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model using the SEM-PLS approach in testing the proposed hypotheses.

The results of the study found strong evidence of the influence of foreign fund flow as a factor that has a significant impact on capital market performance and stock price volatility. In a direct relationship, the amount of net foreign into the capital market has a positive impact on the performance of the capital market. On the other hand, the volatility of share prices has a negative response to this. Moreover, the volatility of stock prices itself has a direct negative effect on capital market performance. Meanwhile, if tested indirectly, the volatility of share prices weakly mediates the relationship between net foreign and capital market performance. This shows that the increasing number of foreign funds entering the capital market has an impact on increasing the share of ownership of funds and reducing the share of ownership of domestic investors. The character of foreign investors who tend to invest in the long term will reduce the volatility of stock price movements in the market. However, if the share of capital ownership is dominated by domestic investors, it will increase the volatility of share prices. This high volatility market condition is beneficial for foreign investors where the decision to enter the exit of the market will tend to be easier in a liquid market condition. Therefore, the returns will be more optimal. Meanwhile, the researchers did not find a significant effect of the transaction activity variable on volatility and capital market performance, either directly or indirectly. Thus, it can be concluded that the volatility of stock prices and the performance of the capital market in Indonesia is more influenced by foreign capital flows than by high transaction activity.

### Implications

Many researchers and students in the last few decades have been interested in conducting studies in the area of Investment Decision Making and Market Behavioral Finance. This should be given high appreciation because this study can add to the repertoire of knowledge and contribute to interested parties. The **theoretical implication** of this study is the finding of the relevance of the risk and return trade-off theory in the portrait of current capital market developments. Whereas volatile market conditions do not always provide high potential

returns in the long term, but also depend on the economic profile and capital market of a country. This is indicated by the diversity of research results in various countries regarding the relationship between foreign capital flows, transaction activity, and stock price volatility on capital market performance. The **practical implication** of this study is its benefits for market players, especially investors in making investment decisions. Several important things related to the practical implications of this study include the following:

1. Market conditions that are highly volatile need attention since they tend to harm investment returns.
2. Considering the factor of the amount of foreign fund flow into or out of the capital market can help investors in making investment decisions by knowing the right momentum to buy or sell stocks.
3. The magnitude of the dominance of foreign fund ownership in the capital market tends to increase the influence of foreign investor activity on fluctuation and rates of return in the capital market.
4. Volatile market conditions have a negative relationship with performance. However, if the flow of foreign funds into the market is high, it might encourage a more optimal level of return on investment.

### Limitations and Suggestions

Similar to other empirical studies, this study has several weaknesses and limitations. Among the limitations and suggestions of this study are:

First, this study was conducted only on the scope of the Indonesian capital market. Thus, the results of this study may only be generalized to countries that have the same economic profiles as Indonesia. Further studies are suggested to increase the sample to countries in Southeast Asia to get an overview of the research results in a broader scope. Second, The operationalization of the variables in this study used monthly historical data. Meanwhile, trading activities tend to be carried out by short-term investors (traders) with a daily time frame or less than 1 month. Therefore, further research is expected to use data with shorter time frames to obtain more relevant results in explaining the behavior of short-term investors or traders.

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