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Analysis of Market Reaction on Wall Street Attenuation in Indonesia

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ABSTRACT: Events have information content that can affect capital markets. One of the foreign economic events that has an impact on the capital market is Wall Street Weakening. The purpose of this study was to examine whether the Wall Street Weakening event had information content that made the capital market in Indonesia react marked by abnormal returns and trading volume activity. This research was conducted on companies listed in the LQ 45 index. The number of samples used was 44 companies with a non-probability sampling method with a purposive sampling technique. The model used to calculate abnormal returns is the market adjusted model. The criteria for determining the sample used are companies that did not take corporate action in March 2020. Data collection was done by non-participant observation. The analysis technique used is paired sample t-test and Wilcoxon signed rank test. The results showed that the Wall Street Weakening event had a significant positive effect on the average abnormal return and the average trading volume activity before and after the Wall Street weakening event. This shows that there is information content on the Wall Street weakening event that made the market react.

Keywords– *Abnormal Returns, Market Adjusted Model, Trading Volume Activity, Event Study*

I. INTRODUCTION

The social, political and economic conditions of a country can be affected by events or events from abroad, especially the countries that influence these are countries that have an important role in aspects of domestic economic activity. In relation to the capital market, important events from abroad can influence market behavior in making investment decisions. Market participants want to ascertain whether the foreign event has a positive or negative impact on the domestic economy.

United States stock markets (US) or Wall Street weakened because investors extended the sell-off and investors' steps to release their shares. This was triggered by fears of increased US trade war with China and hampered global economic growth. A trade war between the United States and China imposes restrictions on imports from one another so that it harms the domestic economy. Import tariffs on steel and aluminum imports from China increased, so the number of imports of the two types of products decreased. This results in delays in the production process of companies in the US and can trigger trade fears among investors.

Wall Street is weakening, this is the most volatile stock movements amid investor efforts in raising concerns due to the US trade war with China and also due to the corona virus. Quoted from CNBC on March 21, 2020, the Dow Jones Industrial Average closed down 913.21 points or more than 4 percent to 19,173.98 after collecting more than 400 points the previous day. The S&P 500 dropped 4.3 percent to 2,304.92. The Nasdaq Composite closed 3.8 percent lower at 6,879.52. The Dow fell more than 17 percent for the week to make the biggest decline since October 2008, when it fell 18.2 percent. The S&P 500 is down from 13 percent and down

11.5 percent in the previous week. The Nasdaq dropped 12.6 percent. The event study was chosen on March 21, 2020 because it had the worst performance or dropped since the 2008 financial crisis (www.liputan6.com).

Based on the Wall Street phenomenon, it can be observed that the capital market will react if an event occurs both at home and abroad that affects the condition of a country. Event studies can be used to test the content

of information from an event. Events that have positive information content, investors will get an abnormal return. If the event does not contain information then there will be no abnormal return obtained by investors (Hartono, 2017: 645).

Attenuation United States stock markets (US) or Wall Street as a event suspected to have information content that affects market reactions. This market reaction is seen from the movement of stock prices in related and measured securities abnormal return. When abnormal return used to measure market reactions, then an announcement of events that have information content will provide abnormal return to market participants, otherwise if the announcement of the event does not contain information, it will not provide abnormal return to market participants (Hartawan et al., 2015)

Based on the explanation above, then the hypothesis can be formulated as follows:

H1: There is a difference in the average abnormal stock returns before and after the weakening of Wall Street on March 21, 2020

Market reaction is not only indicated by changes in stock prices from abnormal returns, but market reactions are also shown by changes in trading activity as reflected in the trading volume of the company's shares. Research conducted by Pradnya and Wirawati (2019), examined the Market Reaction to the Weakening of the Rupiah Value of the Rupiah Exchange Rate. The variables used are abnormal return and trading volume activity. Based on the results of sample selection according to the criteria so the number of samples used is 45 companies included in the LQ45 stock index. Based on the results of the study, the market reaction is indicated by the difference in abnormal returns before and after the weakening of the rupiah in the rupiah exchange rate.

Based on the description above, the second hypothesis can be formulated as follows:

H2: There are differences in average trading volume activity before and after weakening Wall Street on March 21, 2020

II. LITERATURE REVIEW

1. Efficient Market Hypothesis

The Efficient Market Hypothesis Theory, also known as the Random Walk Theory, states that the stock price formed is a reflection of all available information. This efficient market concept states that investors always include the information factor available in their decisions so that it is reflected in the price they are trading. Informational efficient markets can be classified into three forms of efficient markets (Fama, 1970), namely: Hartono (2017: 607) gives several characteristics of efficient markets as follows; 1) Market efficiency is weak, if the prices of securities fully reflect past information; 2) Market efficiency forms a half strong, explaining that prices reflect all relevant public information. The price formed occurs because of information available in the market. All information in the past will be reflected in the prices that are formed now. Information in the past cannot be used to predict future price changes, because they are already reflected in current prices; 3) Strong Form Market Efficiency, the market price of the formed shares now reflects past information plus a ll published and unpublished information.

2. Event Study

Event study or study of events is a method used to measure market reactions to an event whose information is published (Hartono, 2017: 643). Event studies can be used to assess the information content of each event. If an announcement contains information, it is expected that the market will react when the announcement is received by the market. In general, event studies investigate market responses to information content from certa in announcements or publications. Event studies analyze abnormal returns from securities that may occur around the announcement of an event.

3. Abnormal Return

Abnormal return or excess return is the excess of returns that actually occur against normal returns. Normal returns a re expected returns (returns expected by investors). Thus abnormal returns are the difference between the actual returns that occur with expected returns. According to Brown and Warner in Hartono (2017: 668) "estimating return expectations uses the return model estimated mean-adjusted model, market model and market adjusted- model."

4. Trading Volume Activity

Trading volume activity is the ratio between the number of shares traded at a certain time. The volume of stock trading is one of the instruments that can be used to see capital market reactions to information and events. The volume of trading activity can be caused by investors making a request and supply of shares in the stock market. The development of stock trading volume between supply and demand is a reflection of investor behavior. If the volume of demand and supply for these shares increases, it will have a large influence on the ups and downs (fluctuations) of trade in the stock market.

III. RESEARCH METHOD

This study which is included in the event study category. Event study is a study that studies the market reaction to an event whose information is published as an announcement. Event studies can be used to test the information content of an announcement. Testing the information content is carried out with the aim to see the reaction to the announcement. The event window used is 5 days before Wall Street weakening and 5 days after Wall Street weakening (d-5 to d+5). Determination of the event window to avoid the influence of other information that can affect the stock price. The population in this study are all companies included in the LQ45 Index from February to July 2020, as many as 45 companies. The sample is a population that is selected in advance through scientific methods that still represent the population. The sampling method in this study is nonprobability sampling using purposive sampling technique, the sample used is limited to certain criteria determined. The sample in this study was selected based on the criteria of companies listed on the LQ45 Index February - July 2020 which published stock price data during the study period and were free of confounding effects during the observation period. The confounding effect in question is not doing corporate actions such as stock split, dividend announcements, mergers, acquisitions, and right issues. The purpose of this criterion is that the results obtained purely from the Wall Street attenuation event are not biased from corporate action.

The data collection method used is a non-participant observation method, which is a method of collecting data by observation. The model used to calculate abnormal returns is the market adjusted model. The analysis technique used is paired sample t-test and wilcoxon signed rank test.

IV. RESULT & DISCUSSION

Descriptive statistical tests are performed to provide an overview or description of the variable under study, namely abnormal return. The results of descriptive analysis can be seen in table 1. below:

Table 1. Descriptive Statistics Results

Variable	N	Minimum	Maximum	Average	Standard Deviation
AAR Before the event	44	-0.038	0.030	-0.012	0.020
AAR After the event	44	-0.052	0.051	0.000	0.021
ATVA Before the event	44	0.000	0.005	0.002	0.001
ATVA After the event	44	0.000	0.012	0.003	0.003

Average abnormal return before weakening Wall Street has a minimum value is -0.038, a maximum value is 0.030, and has an average value is -0.012, it means the average value has a bias toward the minimum value and a standard deviation of equal to 0.020, is greater than the average value which means that the data gap between one and the other data is far. *Average abnormal return* after weakening Wall Street has a minimum value is -0.052, the maximum value is 0.050, and has an average value is 0.000, it means the average value has a bias towards the maximum value and the standard deviation value of 0.021, greater than the average value which means the data gap between one and the other data is far.

Average trading volume activity before the weakening of Wall Street has a minimum value is 0.000, the maximum value is 0.005, and has an average value is 0.002, it means the average value has a bias toward the minimum value and a standard deviation of equal to 0.001, is smaller than the average value which means that the data gap with one another is close. *Average trading volume activity* after weakening Wall Street has a minimum value is 0.000, the maximum value is 0.012, and has an average value of 0.003, it means the average value has a bias toward the minimum value and a standard deviation of equal to 0.003, is smaller than the average value which means the data gap with one another is close.

The first, conducted to test the first hypothesis is a normality test. The normality test used is the Kolmogorov-Smirnov test with a confidence level of 95% or $\alpha = 5\%$. Normality test is used to determine whether the average abnormal return data is normal or not. If the data is normally distributed, then it can proceed to the parametric test that is paired sample t-test. The normality test results can be seen in Table 2. below:

Table 2. Average Abnormal Return Normality Test Results

Event	Variable	Sig. (2-Tailed)	Information
Wall Street weakening	AAR Before	0.077	Normal
	AAR after	0.200	Normal

Asymp value. Sig (2-tailed) average abnormal return before the weakening of Wall Street is 0.077 greater than 0.05, it means the average abnormal return before the weakening of Wall Street has a normal

distribution. Similarly, the average abnormal return after weakening Wall Street is 0.200 greater than 0.05, it means the average abnormal return after weakening Wall Street has a normal distribution. Based on the normality test, the hypothesis test can proceed to the paired sample t-test. Based on the normality test, the hypothesis test can proceed to the paired sample t-test. The results of paired sample t-test can be seen in Table 3. below:

Table 3. Paired Sample T-Test Average Abnormal Return Test Results

Event	N	t-count	Sig. (2-Tailed)	Information
Wall Street weakening	44	-3.318	0.002	Significant

At the time of weakening Wall Street on March 21 2020 has a t-value is -3.318 and asymp value. Sig (2-tailed) is

0.002 is smaller than 0.05 and its abnormal return is not significantly different from zero on weakening Wall Street. This value states that hypothesis 1 is accepted. From the results of the paired sample t-test it can be concluded that there are differences in the average abnormal return before and after the weakening of Wall Street on March 21, 2020.

Hypothesis 1 states that there are differences in the average abnormal return before and after the weakening of Wall Street on March 21, 2020 accepted. The test results show that, when the weakening of Wall Street there is a meaningful information content for investors, so there is a significant abnormal return is not the same as zero in weakening Wall Street. The results showed that the market when the weakening of Wall Street in the form of half strong seen from the rapid market response to events, where after the weakening of Wall Street was immediately responded by the market seen from price fluctuations that occur and changes in abnormal returns after weakening Wall Street.

The average abnormal return before the weakening of Wall Street is equal to -0.012 whereas after the weakening of Wall Street is the amount 0.000, it shows an increase in abnormal returns after the weakening of Wall Street. An increase in the average abnormal return after the weakening of Wall Street occurs because the market considers this event to have positive information content.

The second hypothesis normality test used is the Kolmogorov-Smirnov test. Normality test is used to determine whether average trading volume activity data is normally distributed or not. The normality test results can be seen in Table 4. below:

Table 4. Normality Test Results Average Trading Volume Activity

Event	Variable	Sig. (2-Tailed)	Information
Wall Street weakening	ATVA Before	0.093	Normal
	ATVA After	0.000	Abnormal

Asymp value. Sig (2-tailed) average trading volume activity before weakening Wall Street is 0.093 greater than 0.05, it means that average trading volume activity before weakening Wall Street is normally distributed. Asymp value. Sig (2-tailed) average trading volume activity after weakening Wall Street is 0.000 smaller than 0.05, it means that average trading volume activity after weakening Wall Street is not normally distributed. Based on the normality test, the hypothesis test can proceed to the non-parametric test, that is Wilcoxon signed ranks test. Wilcoxon signed ranks test results can be seen in Table 5. below:

Table 5. Wilcoxon Signed Ranks Test Average Trading Test Results Volume Activity

Event	N	Sig. (2-Tailed)	Information
Wall Street weakening	44	0.000	Significant

At the time of weakening Wall Street on March 21, 2020 has asymp value. Sig (2-tailed) is 0.000 is smaller than

0.05. This value states that hypothesis 2 is accepted. From the results of the Wilcoxon signed ranks test it can be concluded that there are differences in average trading volume activity before and after weakening Wall Street on March 21, 2020.

Hypothesis 2 states that there are differences in average trading volume activity before and after the weakening of Wall Street on March 21, 2020 accepted. Test results show that, when weakening Wall Street there is a meaningful information content for investors, so there are significant differences in trading volume activity before and after weakening Wall Street. The event has information that affects investors buying interest.

Generally, the events of the weakening of Wall Street affect activities in the capital market. This is evidenced by changes in the average value of trading volume activity. Average trading volume activity b

efore weakening Wall Street is 0.002 while after weakening Wall Street is 0.003, it shows an increase in average trading volume activity after weakening Wall Street. An increase in average trading volume activity after weakening Wall Street because the market considers this event to have a positive information content.

The results of this test indicate that the moment of events weakening Wall Street has information content and supports efficient market theory, where the market responds to incoming information, as well as how that information can affect the price of securities towards a new market equilibrium price.

V. CONCLUSION

The market reacts to the events of Wall Street weakening which is indicated by the difference in the average abnormal return before and after the weakening of Wall Street on March 21, 2020. It means the weakening of Wall Street causes movement or gives an effect on abnormal returns in the Indonesian capital market. The market reacts to the events of Wall Street weakening as indicated by the difference in average trading volume activity before and after the weakening of Wall Street on March 21, 2020. It means the weakening of Wall Street affects investors decisions in making transactions in the capital market, causing an average difference trading volume activity. Investors should be more careful in investing in the capital market when foreign economic events occur such as the weakening of Wall Street. Research can be an information and consideration for investors when foreign economic events occur. Further researchers are expected to make observations in all companies going public and in each sector in the Indonesia Stock Exchange. In addition, researchers can then use different calculation models. Future researchers can also use other abnormal return calculation models, such as the mean adjusted model and the market model. Further research can also use a sample of various sectors, indexes other than LQ45, and all companies listed on the Indonesia Stock Exchange.

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