



EVENT STUDY: THE IMPACT OF FOMC ANNOUNCEMENT ON 16TH OF MARCH 2020 ON LQ45 COMPANY STOCK RETURNS

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ABSTRACT

This study aims to analyze the impact of the FOMC announcement on March 16, 2020, on the share price and abnormal return of LQ45 companies; and to determine the difference in the impact of LQ45 company share prices and abnormal returns before and after the FOMC announcement on March 16, 2020.

This research method is an event study with the independent variable used being the FOMC announcement on March 16, 2020, while the dependent variables are stock prices and abnormal returns. The sample for this research was 45 LQ-45 companies listed on the IDX that announced daily share price data before and after the FOMC announcement on March 16, 2020. The data collection method used secondary data documentation which was then analyzed using the paired sample t-test and the Wilcoxon sign test. rank test.

The research results show that (1) the FOMC announcement on 16 March 2020 had a negative impact on the share prices of LQ-45 companies, with the average share price after the announcement being lower than the average share price after the FOMC announcement on 20 March 2020. Impact on Abnormal Returns company LQ45 is average Average Abnormal Return (AAR) before the FOMC announcement was positive while after the announcement it was negative, so it can be said that the AAR before the announcement was higher compared to the AAR after the FOMC announcement on March 20, 2020. (2) Based on the LQ45 company share price difference test during the period, there was a significant average difference before and after the FOMC announcement event on March 16 2020. This indicates that the FOMC announcement had an impact on low share prices. Then, test the difference in abnormal returns for LQ45 companies during the period, namely that there is no difference in the average before and after the FOMC announcement event on March 16, 2020. This indicates that the FOMC announcement has no impact on the difference in average abnormal returns.

Keywords: Share Price; Abnormal Returns; FOMC Announcements.

INTRODUCING

As the Federal Open Market Committee (FOMC) is one of the elements of monetary policy making in the US, announcements have become an increasingly important source of news for investor decision making. The Federal Open Market Committee (FOMC) announcement had an impact, namely (1) all stock markets studied responded to the information in the FOMC announcement. (2) the federal funds interest rate target has a greater impact on the performance of stocks in Southeast Asia than information about the future path of monetary policy. (3) Stock markets in Southeast Asia respond similarly to the federal funds interest rate target, while responses to monetary policy differ from each other. (4) there are no differences between each country regarding FOMC announcements during the financial crisis period (Bao & Mateus, 2017).

Several previous researchers studied the market reaction due to a certain event, namely the difference in the Abnormal Return value between the period before and after the countercyclical strategy policy (Lasano & Ali, 2021). Other researchers also found the same result, namely that there was a difference in the average abnormal return and trading volume activity before and after the regulation of Indonesia-China trade transactions using Rupiah-Yuan (Priyanto, 2021). However, there are different research results, namely that there is no difference in the average abnormal return

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both before and after the announcement of the increase in the reference interest rate by Fed in the US (Pratiwi & Wirakusuma, 2018).

Based on the findings of previous researchers which are still inconsistent regarding the impact of an event on Abnormal Returns, the researchers are interested in researching again with the aim of getting more consistent results regarding the FOMC announcement event on the share prices of LQ45 companies after the Covid-19 pandemic. This research will take the event impact period, namely 7 days before and 7 days after the FOMC announcement on March 16, 2020. Therefore, the following research questions can be created:

1. What is the impact of the FOMC announcement on March 16, 2020, on the share price and abnormal return of LQ45 companies?
2. Is there a significant difference of the LQ45 company's share price and abnormal return before and after the FOMC announcement on March 16, 2020?

THEORETICAL FRAMEWORK AND HYPOTHESIS FORMULATION

Capital Market

The capital market can be defined as a market for various long-term financial instruments that can be traded, both in the form of debt and equity, issued by the government, and the private sector (Widyatmoko et al., 2022). Meanwhile, according to (Hartono, 2017) what is meant by the capital market is a meeting place between buyers and sellers with the risk of profit and loss.

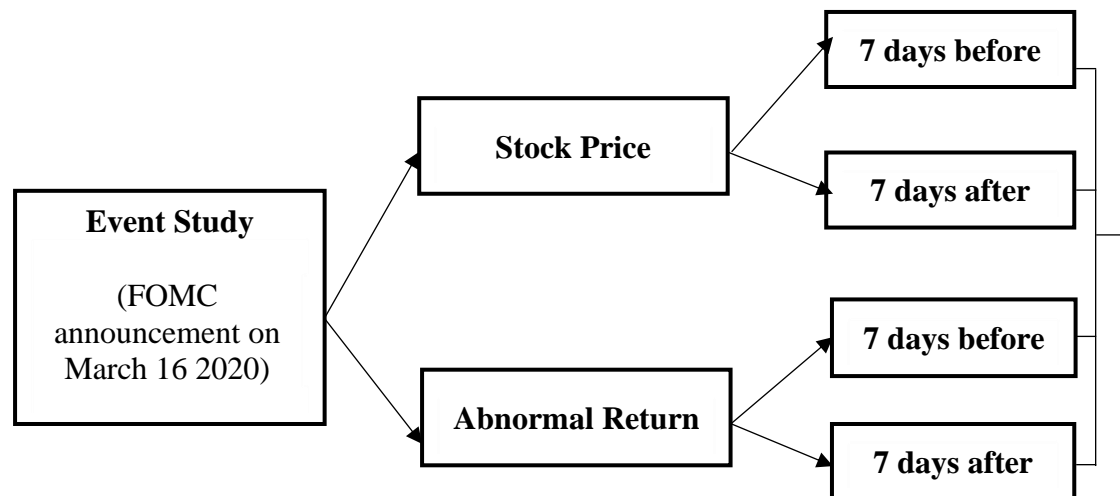
The capital market is an event that can be used as a place or means of meeting demand and supply for long-term financial instruments, generally more than 1 (one year). The law defines the capital market as "activities related to public offerings and securities trading, public companies related to the securities they issue, as well as institutions and professions related to securities". In the Big Indonesian Dictionary (KBBI) also explains that the capital market is a sale and purchase transaction of securities with a term of more than one year (Samsul, 2006).

Efficient Market Hypothesis (EMH)

The concept of the Efficient Market Hypothesis (EMH) was first popularized by Samuelson and Fama in the 1960s. EMH is a phenomenal theory that has kept many researchers and investors from being able to carry out empirical research on the truth of this theory since it was popularized by Fama in 1970. The concept of EMH is that prices are formed in an efficient market, which describes all information. existing (share prices reflect all available information). Testing has been carried out continuously since this concept was popularized until now to understand how efficient the capital market is in a country. What is meant by efficiency is that investors can "beat" the market (no one can beat the market), in other words, it is impossible for these investors to obtain abnormal returns when the market is called efficient (Zen, 2022).

Efficient market hypothesis (EMH) is a hypothesis which states that the price of a security completely reflects the availability of information about that security. The concept of the Efficient Market Hypothesis (EMH) was first put forward by Fama (1970) in (Rachman & Ervina, 2017) which essentially states that in an efficient market, securities in the form of convertible bonds will always be traded at fair value so that no one also able to obtain abnormal returns, after adjusting for risk, by using existing trading strategies. In other words, the prices formed in the market are the result of a reflection of all available information.

Figure 1
Conceptual Framework



Hypothesis

The impact of the FOMC announcement on March 16, 2020, on stock prices and abnormal returns of LQ45 companies. Based on the problem formulation and objectives that have been explained, the hypothesis in this research is: "It is suspected that there is a significant difference in LQ-45 company returns before and after the FOMC announcement by the Federal reserves.

The Impact of The FOMC Announcement On 16 March 2020 on LQ45 Company Stock Prices.

Lower interest rate announcements are often responded positively by the stock market, as they lower borrowing costs and encourage investment. In the context of the LQ45, which contains stocks of large companies with significant market capitalization in Indonesia, the FOMC announcement has the potential to have a positive effect on the stock prices of these companies. Lower interest rates can increase the attractiveness of investing in stocks, especially because of lower bond yields, which make stocks a more attractive alternative for investors. However, although in theory this policy should increase stock prices, the actual effect can vary depending on how the market responds to the information. The stock market can respond positively if investors feel more confident about the global and domestic economic recovery, or conversely, if they feel that the policy only provides a temporary solution and is not enough to overcome greater uncertainty.

Stock price fluctuations indicate that changes in stock prices can be caused by new information circulating, but it is not yet known when this information will be received by the market. Seeing the fluctuating IHSG movement as a reaction to the announcement of the certainty of the Fed Fund Rate policy by the Fed, this shows that the Indonesian capital market reacted around the period of the announcement made by the Fed. Based on this description, the following hypothesis can be made:

H1: There is a significant impact in LQ45 company stock prices after the FOMC announcement on 16 March 2020.

The Impact of the FOMC Announcement on March 16, 2020, on stock prices and abnormal returns of LQ45 companies.

The announcement of the interest rate cut by the FOMC on March 16, 2020, could cause a positive reaction in the Indonesian stock market, especially in stocks included in the LQ45 index. If the LQ45 stock price increases significantly after the FOMC announcement, it can be said that investors responded positively to the policy. This shows that the market considers the announced monetary policy to support global economic recovery and provide market stability.

Namely the difference in the Abnormal Return value between the period before and after the countercyclical strategy policy (Lasano & Ali, 2021). Other researchers also found the same result, namely that there was a difference in the average abnormal return and trading volume activity before

and after the regulation of Indonesia-China trade transactions using Rupiah-Yuan (Priyanto, 2021). Based on this description, the following hypothesis can be made:

H2 : There is a significant impact in the LQ45 company stock prices average abnormal return after the FOMC announcement on 16 March 2020.

METHODS

As stated in the conceptual framework, the research examines the impact of the FOMC announcement on March 16, 2020, on stock prices and abnormal returns of LQ45 companies. This research uses 1 independent variable and 2 dependent variables. The independent variable used is the FOMC announcement on March 16, 2020, while the binding variables are stock prices and abnormal returns.

Sample

In this case all 45 companies of LQ45 are used for research therefore the sample are as follow:

Based on the criteria above, the sample in this study consisted of 45 companies. The list of 45 companies can be seen in table 2 below.

Tabel 2
LQ-45 Company Sample

No.	Company Name	Code
1	Ace Hardware Indonesia Tbk.	ACES
2	Adaro Energy Tbk.	ADRO
3	AKR Corporindo Tbk.	AKRA
4	Aneka Tambang Tbk.	ANTM
5	Astra International Tbk.	ASII
6	Bank Central Asia Tbk.	BBCA
7	Bank Negara Indonesia (Persero) Tbk.	BBNI
8	Bank Rakyat Indonesia (Persero) Tbk.	BBRI
9	Bank Tabungan Negara (Persero) Tbk.	BBTN
10	Bank Mandiri (Persero) Tbk.	BMRI
11	Barito Pacific Tbk.	BRPT
12	Bumi Serpong Damai Tbk.	BSDE
13	Bank Tabungan Pensiunan Nasional Syariah Tbk.	BTPS
14	Charoen Pokphand Indonesia Tbk	CPIN
15	Ciputra Development Tbk.	CTRA
16	Erajaya Swasembada Tbk.	ERAA
17	XL Axiata Tbk.	EXCL
18	Gudang Garam Tbk.	GGRM
19	H.M. Sampoerna Tbk.	HMSP
20	Indofood CBP Sukses Makmur Tbk.	ICBP
21	Vale Indonesia Tbk.	INCO
22	Indofood Sukses Makmur Tbk.	INDF
23	Indah Kiat Pulp & Paper Tbk.	INKP
24	Indocement Tunggal Prakarsa Tbk.	INTP
25	Indo Tambangraya Megah Tbk.	ITMG
26	Japfa Comfeed Indonesia Tbk.	JPFA
27	Jasa Marga (Persero) Tbk.	JSMR
28	Kalbe Farma Tbk.	KLBF

29	Matahari Department Store Tbk.	LPPF
30	Media Nusantara Citra Tbk.	MNCN
31	Perusahaan Gas Negara Tbk.	PGAS
32	Bukit Asam Tbk.	PTBA
33	PP (Persero) Tbk.	PTPP
34	Pakuwon Jati Tbk.	PWON
35	Surya Citra Media Tbk.	SCMA
36	Semen Indonesia (Persero) Tbk.	SMGR
37	Sri Rejeki Isman Tbk.	SRIL
38	Tower Bersama Infrastructure Tbk.	TBIG
39	Pabrik Kertas Tjiwi Kimia Tbk.	TKIM
40	Telekomunikasi Indonesia (Persero) Tbk.	TLKM
41	Sarana Menara Nusantara Tbk.	TOWR
42	United Tractors Tbk.	UNTR
43	Unilever Indonesia Tbk.	UNVR
44	Wijaya Karya (Persero) Tbk.	WIKA
45	Waskita Karya (Persero) Tbk.	WSKT

Operational Variables

Tabel 3
Operational Variables

No	Variabel	Definition	Dimension	Indicator
1.	Stock Prices	The share price is the price of a share of the LQ45 company in the 7-day period before and after the FOMC announcement on March 16, 2020, which must be sacrificed by investors and determined by market participants and determined by demand and supply of the shares concerned in the market capital.	Closing price	• Closing price
2.	Abnormal Return	Abnormal returns are the excess of actual returns compared to normal returns due to the FOMC announcement on March 16, 2020 (7 days before and 7 days after FOMC announcement)	Actual return- Expected return	• $A(R) - E(R)$

The data in this research was processed with the help of Microsoft Excel 2010 and SPSS-25. The analysis technique in this research includes three steps which are described as follows:

Descriptive Statistics

Descriptive statistical analysis techniques can be used to find the mean, minimum, maximum and standard deviation. In this analysis, researchers want to know the average return. Then the lowest and highest returns. As well as the standard deviation of returns before and after the announcement.

Data Normality Test

The normality test is a test carried out as a condition for carrying out data analysis, to find out what tests will be carried out afterwards. The purpose of the normality test is to detect the distribution of data in one variable. Data can be said to be good if the data is normally distributed.

The normality test used in this research is the Kolmogorov-Smirnov test. The normality test with Kolmogorov Smirnov was processed using SPSS-25, with the following steps. Click the Analyze menu→Nonparametric Test→1-Sample K-S. Data is said to be normal if the significant value is greater than 0.05 at ($P>0.05$). Conversely, if the significant value is smaller than 0.05 at ($P<0.05$) then it is said to be abnormal. If the data is normal, the paired t-test will then be carried out, if the data is abnormal the Wilcoxon signed rank test will be carried out (Sugiyono, 2017).

Hypothesis testing

The hypothesis test used in this research is the difference test. If the data is normally distributed, a Paired sample t-test will be carried out, if the data is not normal a Wilcoxon signed rank test will be carried out.

1. Paired Sample T-test

Paired T-test is a parametric difference test on two paired data. The formula used for paired samples is:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2} - 2r\left(\frac{S_1}{\sqrt{n_1}}\right)\left(\frac{S_2}{\sqrt{n_2}}\right)}}$$

Information:

\bar{X}_1 : Average of sample 1

\bar{X}_2 : Average of sample 2

S_1 : Sample 1 standard deviation

S_2 : Sample 2 standard deviation

S_1^2 : Sample 1 variance

S_2^2 : Sample 2 variance

$2r$: Correlation between two samples

The paired sample T-test was processed using SPSS-25, with the following steps. Click menu Analyze→Compare Means →Paired sample T-test.

2. Wilcoxon signed rank test

The Wilcoxon signed rank test is part of a non-parametric statistical method. Because it is part of non-parametric statistics, the Wilcoxon test does not require research data that is normally distributed. Thus, it can be said that using the Wilcoxon test as a substitute for the paired sample t-test when the research data is not normally distributed is the most appropriate step. Formula:

$$Z = \frac{T - \left(\frac{1}{4N(N+1)}\right)}{\sqrt{\frac{1}{24N(N+1)(2N+1)}}}$$

Information:

N = The amount of data changes after being given different treatment

T = Number of rankings of negative difference values (if the number of positive differences is greater than the number of negative differences) = number of ranks of positive difference values (if the number of negative differences > number of positive differences)

Wilcoxon signed rank is processed with SPSS-25, with the following steps. Click menu Analyze→Nonparametric Tests →2 Related Samples.

RESULT AND DISCUSSION

Table 4
Stock Price Normality Test Results

One-Sample Kolmogorov-Smirnov Test		Average_Share Price_Before	Average_Share Price_After
N		45	45
Normal Parameters ^a , ^b	Mean	5,196.8400	3,957.2289
	Std.	8212.72037	6,642.52250
	Deviation		
	n		
Most Extreme Differences	Absolute	,271	,282
	Positive	,244	,260
	Negative	-.271	-.282
Statistical Tests		,271	,282
Asymp . Sig. (2-tailed)		,000 ^c	,000 ^c
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			

Based on the table above, it can be seen that the results of the normality test of the average stock price data in 45 LQ-45 companies before the FOMC announcement and after the FOMC announcement obtained a sig value of 0.000. The results of the normality test with a sig value <0.05 can be concluded that the data is not normally distributed.

Table 5
Abnormal Return Normality Test Results

One-Sample Kolmogorov-Smirnov Test		Average_Abnormal_Before	Average_Abnormal_After
N		45	45
Normal Parameters ^a , ^b	Mean	,000000098	-,000000124
	Std.	,0000007595	,0000008960
	Deviation		
	n		
Most Extreme Differences	Absolute	,129	,109
	Positive	,129	,109
	Negative	-.105	-.097
Statistical Tests		,129	,109
Asymp . Sig. (2-tailed)		,057 ^c	,200 ^{c,d}
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			
d. This is a lower bound of the true significance.			

Based on the table above, it can be seen that the results of the normality test of the Average Abnormal Return (AAR) data on 45 LQ-45 companies before the FOMC announcement obtained a sig value of 0.057. Testing the average Average Abnormal Return (AAR) after the FOMC announcement also obtained the same result, namely sig 0.200. The results of the normality test with a sig value > 0.05, it can be concluded that the data is normally distributed.

Hypothesis Testing Results

Hypothesis testing conducted in this study using the Wilcoxon test because the research data is not normally distributed, both in stock price data. This test is conducted to compare two related variables. And is carried out if the data is normally distributed, so that after performing data transformation, and the data has been distributed normally, this test can be used. The results of the Wilcoxon test are as follows:

Table 6
Hypothesis Test Results Difference in Share Prices with Wilcoxon Test

Test Statistics ^a	
	Average_Hs_After - Average_Hs_Before
Z	-5,841 ^b
Asymp . Sig. (2-tailed)	,000
a. Wilcoxon Signed Ranks Test	
b. Based on positive ranks.	

Based on the table above, it can be seen that the sig value of the Wilcoxon test is 0.000 < 0.05, so H_0 is rejected. So it can be concluded that H_1 is accepted, which means there is a significant difference in the average stock price between before and after the FOMC announcement on March 16, 2020.

The second hypothesis test is to determine whether there is a significant difference in the average abnormal before and after the FOMC announcement on March 16, 2020, using the Paired Sample T-Test because the data is normally distributed. The following are the results of the Hypothesis Test of Abnormal Return Differences with the Paired Sample T-Test.

Table 7
Hypothesis Test Results Difference Abnormal Returns with Paired Sample T-Test
Paired Samples Test

		Pair 1 AAr_Before - AAr_After
Paired Differences	Mean	,0000002222
	Std. Deviation	,0000011544
	Std. Error Mean	,0000001721
	95% Confidence Interval of the Difference	Lower -,0000001247 Upper ,0000005690
	t	1,291
df		44

Sig. (2-tailed)	.203
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Based on the table above, it can be seen that the Paired Sample T-Test sig value is $0.203 > 0.05$, so H_{a2} is rejected. So it can be concluded that H_2 is rejected, which means there is no significant difference in the average abnormal return between before and after the FOMC announcement on March 16, 2020.

Based on the results of the hypothesis testing above, conclusions can be made as in the table below:

Table 8
Summary of Hypothesis Testing Results

Hypothesis Statement	Results
H1: There is a significant impact in LQ45 company stock prices after the FOMC announcement on 16 March 2020	Accepted
H2 : There is a significant impact in the LQ45 company stock prices average abnormal return after the FOMC announcement on 16 March 2020	Rejected

Based on table 8, it can be seen that only the first hypothesis (H1) namely the LQ45 stock price is significantly affected by the FOMC announcement on March 16, 2020, while the second hypothesis (H2) is rejected, indicating that the average abnormal return of LQ45 stocks is not significantly affected after the FOMC announcement. This means that the FOMC announcement on March 16, 2020 had a significant impact on the company's stock price, but the impact was not strong enough to affect the average abnormal return of stocks in the LQ45 index.

DISCUSSION

Impact FOMC announcement on 16 March 2020 against Share Prices and Company Abnormal Returns LQ45.

This study found that the impact of the FOMC announcement on March 16, 2020 on the stock prices of LQ45 companies was a decrease in the average stock price because 7 days before the announcement the average stock price was 5,196 while after 7 days of the announcement it decreased to 3,957. Therefore, it can be concluded that the FOMC announcement on March 16, 2020 had a negative impact on the stock prices of LQ-45 companies, with the average stock price after the announcement being lower than the average stock price after the FOMC announcement on March 20, 2020.

Significant stock price changes can cause the market to be inefficient. The reaction of stock prices to new information received will have an impact on the market. If the information is responded to late or after the announcement, what happens is a delayed response to "bad news" or an overreaction to "bad news" which reflects an inefficient market. In addition, the event of "FOMC announcement on March 16, 2020" has strong information and can create differences in the average abnormal return so that in the capital market it will make investors more careful and more selective in choosing the right time to invest their capital.

The FOMC announcement on March 16, 2020 as a monetary policy in the United States can affect the performance of companies in Indonesia including LQ45 companies. The announcement has become an increasingly important source of news for investor decision making. The Federal Open Market Committee (FOMC) announcement has an impact, namely (1) all stock markets studied responded to information in the FOMC announcement. (2) the federal funds interest rate target has a greater impact on the performance of stocks in Southeast Asia than information on the future path of monetary policy. (3) Stock markets in Southeast Asia responded similarly to the federal funds interest rate target, while responses to monetary policy differed from each other. (4)

there was no difference in each country regarding the FOMC announcement during the financial crisis period (Bao & Mateus, 2017) .

Differences in Stock Prices and Abnormal Return of LQ45 Companies Before and After FOMC announcement on March 16, 2020.

The findings of this research are not in line with previous researchers who also found that there was a difference in the Abnormal Return value between the periods before and after the strategy policy. Countercyclical The results of this study found that there was a significant difference in the average stock price before and after the FOMC announcement on March 16, 2020. In addition, this study also found that there was no difference in the average abnormal return before and after the FOMC announcement on March 16, 2020. The findings of this study are not in line with previous researchers who also found that there was a difference in the Abnormal Return value between the period before and after the countercyclical strategy policy (Lasano & Ali, 2021).

The same finding also shows that there is a difference in the average abnormal return and trading volume activity before and after the regulation of Indonesia-China trade transactions using Rupiah-Yuan. (Priyanto, 2021).

The absence of differences in abnormal returns due to the FOMC announcement indicates that the data content of the event is not sufficient to make the capital market respond and cannot influence the tendency of financial backers in determining business choices, so that the market as a whole does not expect this data, which is reflected in the absence of differences in unusual returns. Changes in the average abnormal return in the observation period before and after the FOMC announcement event on March 16, 2020, also indicate that the information contained in the event did not have a significant effect on investor reactions in the capital market. The market did not react to the event as indicated by the absence of changes in abnormal returns during the period before and after the event.

The change in the average abnormal return in the observation period before and after the FOMC announcement event on March 16, 2020 did not show a difference in a positive direction but showed a negative direction. A negative abnormal return means that an event brings bad news because the return that occurs is smaller than the expected return. The average abnormal return after the announcement in this study showed a negative value even though the abnormal return before the announcement was positive. This change could occur because information about the FOMC announcement event has not been evenly received by investors.

CONCLUSION

Based on the results of research calculations and discussions described in the previous chapter, this research aims to analyze the impact of the FOMC announcement on March 16, 2020 on stock prices and abnormal returns for 7 days before and 7 days after the event, resulting in the following conclusions:

1. The impact of the FOMC announcement on March 16, 2020 on the stock price of LQ45 companies is a decrease in the average stock price because 7 days before the announcement the average stock price was 5,196 while after 7 days of the announcement it decreased to 3,957. Therefore, it can be concluded that the FOMC announcement on March 16, 2020 had a negative impact on the stock price of LQ-45 companies, with the average stock price after the announcement being lower than the average stock price after the FOMC announcement on March 16, 2020. The impact on the Abnormal Return of LQ45 companies is a decrease in the average or Average Abnormal Return (AAR) because during the 7 days before the



announcement the average or Average Abnormal Return (AAR) was 0.000000098 while after 7 days of the announcement the average value or Average Abnormal Return (AAR) was - 0.000000124. Therefore, it can be concluded that the average Average Abnormal Return (AAR) before the FOMC announcement was positive, while after the announcement it was negative, so it can be said that the FOMC announcement on March 16, 2020 negatively affected LQ45 companies average abnormal return.

2. Based on the test of the difference in stock prices of LQ45 companies during the period, there is a significant difference in the average before and after the FOMC announcement event on March 16, 2020. This indicates that the FOMC on March 16, 2020, impacted the market negatively which led to lower stock prices. Then, the test of the difference in abnormal returns of LQ45 companies during the period, while the result of hypothesis test implies that there is no significant impact in the LQ45 company average abnormal return one thing I want to focus on is that before the announcement the LQ45 companies has positive abnormal return while after the announcement the LQ45 has negative abnormal return.

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