Market Reaction about the Spread of Covid-19 in Indonesia (Study on LQ45 Stock Index)

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ABSTRACT: This research was conducted to prove the information content of the Covid-19 spread in Indonesia, which caused a market reaction which was indicated by an abnormal return on the LQ45 stock index around the event. the spread of Covid-19 in Indonesia. The observation period is carried out for 11 working days for the Indonesia Stock Exchange (BEI). This research is a type of event study research using a quantitative approach. The quantitative approach in this research is to measure the market reaction using abnormal returns. The sampling method in this study is a non-probability sampling method with a sampling technique using purposive sampling technique with the following criteria: Companies that join the LQ45 index for the period February - July 2020. The results of this study indicate that during the 11 days of observing the Covid-19 spread in Indonesia The LQ45 stock index contains valuable information that can influence investors in making their investment decisions. This can be seen from the price fluctuations that have occurred and changes in abnormal returns after the spread of Covid-19 in Indonesia.

KEYWORDS : *Study event, Market reaction, Covid-19, Abnormal return*

I. INTRODUCTION

Investation is capital investment for one or more activities that are owned and usually have a long term with the hope of getting benefits in the future (Sunariyah, 2003: 4). Indonesia has many media to invest, one of which is the capital market. Capital market activities in Indonesia are facilitated by the Indonesia Stock Exchange (IDX). One of the investment instruments in the capital market is shares. Securities in the form of equity participation have a relatively higher risk of price fluctuations compared to other investment instruments. The current fluctuations in stock prices in the capital market cannot be separated from environmental conditions and government policies.

The movement of stock prices on the Indonesia Stock Exchange (IDX) is usually monitored through the Composite Stock Price Index (IHSG). This index is always paid attention by many investors because it includes the price of all shares listed on the Indonesia Stock Exchange as a calculation component. The higher the capitalization rate of the IDX, the more sensitive investors are in responding to information as the basis for making their investment decisions. The LQ45 index is created and published by the Indonesia Stock Exchange. This index consists of 45 stocks with high liquidity which were selected through several selection criteria. In addition to the assessment of liquidity, the selection of these shares also considers market capitalization because it is considered an indicator of solid performance and reflects the actual market value.

Information is very important in the capital market. If information in the capital market can change investor confidence, then the information is considered informative (Zuhroh and Sukmawati, 2003). Information can be obtained by investors from announcements issued by companies or from policy announcements by the government, both in the form of financial announcements and non-financial announcements.

The reaction of the capital market regarding the information content in an event can be measured by using returns as the value of price changes or by using abnormal returns which are the difference between the actual return and the return expected by investors. Abnormal return is the advantage of return that actually occurs on normal return. An information will cause a market reaction and cause abnormal returns to the market, and vice versa.

Regardless of the scope of capital market, entering 2020 Indonesia and even the world were shocked by the emergence of a new type of virus called the Corona Virus or in scientific language referred to as Covid 19. The Corona virus began to infect the Indonesian population in early March, this was conveyed by the President of Indonesia. Joko Widodo in his speech at the Presidential Palace, Jakarta on March 2, 2020. President Jokowi said that two people who tested positive for the Corona Virus were infected from Japanese citizens who came to Indonesia. The spread of the Corona outbreak to various parts of the world will become a serious threat to the global economy, especially the Indonesian economy.

The concept of this research is market efficiency. Concept of market efficiency can underlie this research because the concept of market efficiency discusses the relationship between the price or value of securities with information, how the market reacts to information, and the extent to which information can affect the movement of stock prices formed (Hanafi, 2004) in (Barbara Sambuari, 2020).

Based on the description of the background above, this study seeks to find out how the market reacts to the spread of Covid-19 in Indonesia (Study on the LQ45 stock index).

II.   METHODS

This study uses a time period of 11 working days on the Indonesia Stock Exchange (IDX) with the assumption that this time is adequate and sufficient for market participants to respond to the spread of Covid-19 in Indonesia. 11-day period is used with the following distribution: t-5 (pre-event, 5 days before the spread of Covid-19 in Indonesia), t=0 (event-day, the first day of the entry of Covid-19 in Indonesia), t+5 (post-event, 5 days after the entry and spread of Covid-19 in Indonesia). This period is taken to avoid confounding effects from other events, such as rights issues, warrants, additional shots, dividend announcements, bonus shares, mergers and so on.

The location of this research was conducted on the Indonesia Stock Exchange (IDX) on the LQ45 stock index by accessing www.idx.co.id which is the official website of the Indonesia Stock Exchange. The object of research is a phenomenon or research problem that has been abstracted into a concept or variable. The object of this study is the abnormal return on the LQ45 stock index.

The variable of this study is abnormal return. Abnormal return is the excess of the actual return on the expected return (the return expected by investors). Abnormal return is the difference between the actual return and the expected return (Hartono, 2015: 647). The calculation of expected return in this study uses a market adjusted model, because this model assumes that the best predictor for estimating the return of a security is the market index return at that time. By using this model, there is no need to use an estimation period to form an estimation model, because the estimated security return is the same as the market index return (Hartono, 2015: 648).

The population in this study are stocks listed in the LQ45 index on the Indonesia Stock Exchange for the period February-July 2020. The method of determining the sample in this study is a non-probability sampling method with a sampling technique using purposive sampling technique with criteria: - Companies that join LQ45 index for the period February – July 2020. The data collection in this study used non-participant observation method, where the researcher became an independent observer and was not directly involved in the observed events.

The data analysis technique used in this study was the one sample t-test used to test whether there was a market reaction caused by the spread of Covid-19 in Indonesia. Analysis of 30 through a one-sample t-test (one sample t-test) was performed with the help of the Statistical Package for Service Solutions (SPSS) program. The collected data will be gradually analyzed starting from descriptive statistical analysis, normality test, then hypothesis testing with one sample t-test (one sample t-test).

III.   RESULT AND DISCUSSION

Descriptive statistics are the initial part of data analysis that provides an initial description of each research variable, average abnormal return and average trading volume activity. The results of descriptivestatistics can be seen in Table 1

Table 1. Descriptive Statistical Results

WindowPeriod	N	Minimum	Maximum	Average	Standar Deviation
t-5	45	-0,0588	0,0611	0,0056	0,0274
t-4	45	-0,0667	0,0320	-0,0183	0,0232
t-3	45	-0,0669	0,0712	-0,0025	0,0313
t-2	45	-0,0646	0,0762	0,0075	0,0225
t-1	45	-0,1027	0,0111	-0,0388	0,0249
t0	45	-0,0409	0,1092	0,0255	0,0335
t+1	45	-0,0791	0,0109	-0,0311	0,0229
t+2	45	-0,0619	0,0628	0,0145	0,0256
t+3	45	0,0067	0,1493	0,0496	0,0288
t+4	45	-0,0500	0,0440	-0,0083	0,0202
t+5	45	-0,0819	0,0266	-0,0195	0,0230
ValidN	45				

The presentation of descriptive statistics in this study is used to provide information about the number of samples, minimum values, maximum values, average values, and standard deviation values.

Table 2. Normality Test

Window Period	SignificantScore	N	Explanation
t-5	0,200	45	Normal
t-4	0,200	45	Normal
t-3	0,200	45	Normal
t-2	0,200	45	Normal
t-1	0,143	45	Normal
t0	0,195	45	Normal
t+1	0,200	45	Normal
t+2	0,200	45	Normal
t+3	0,200	45	Normal
t+4	0,200	45	Normal
t+5	0,098	45	Normal

Based on the results of Table 2, it can be said that all the significant level Asymp.Sig (2-tailed) coefficients used are 0.05. Because the coefficient of Asymp.Sig (2-tailed) is greater than α, it can be concluded that this structural model is normally distributed.

Table 3. One sample t-test

Window Period	Significant Score	Average	Explanation
t-5	0,175	-0,0200	Not Significant
t-4	0,000	-0,0183	Significant
t-3	0,589	0,0188	Not Significant
t-2	0,030	0,0075	Significant
t-1	0,000	-0,0388	Significant
t0	0,000	0,0255	Significant
t+1	0,000	-0,0310	Significant
t+2	0,000	-0,0069	Significant
t+3	0,000	0,0496	Significant
t+4	0,009	-0,0083	Significant
t+5	0,000	0,0061	Significant

Based on table 3 above, if Sig (2-tailed) > 0.05, it means that there is no significant abnormal return, if there is no abnormal return, it means that there is no market reaction to the spread of Covid-19 in Indonesia. Vice versa, if Sig (2-tailed) < 0.05, it means that there is a significant abnormal return and it means that there is a market reaction to the spread of Covid-19 in Indonesia.

IV.   CONCLUSION

Based on the results of the analysis and discussion presented in the previous chapter, the conclusions that can be drawn are for 11 days of stock trading around the date of the spread of Covid-19 in Indonesia using abnormal return variables without involving confounding effects such as stock splits, mergers and acquisitions. The results show that the event of the spread of Covid-19 in Indonesia was reacted by the market. It can be seen from the results of testing hypothesis 1 using the one sample t-test test, the average value is 0.0255 with a significance value of 0.000 > (0.05). This means that the event of the spread of Covid-19 in Indonesia contains valuable information that can influence investors in making investment decisions. It can be said that the spread of Covid-19 in Indonesia causes movement or has an influence on abnormal returns on the LQ45 stock index in the Indonesian capital market.

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