

Market Reactions to the Implementation of Large-Scale Social Restrictions Phase 1 in Jakarta

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ABSTRACT: This study analyzes the market response to the implementation of Phase 1 of the Large-Scale Social Restrictions (known as PSBB) in Jakarta due to the Covid-19 pandemic that is hitting Indonesia. Due to the importance of Jakarta's position as the nation's capital and business center in Indonesia, it is estimated that the implementation of this PSBB will get a response from the market. Testing the information content of an event such as the PSBB incident generally uses an event study. The event window used in this study was 7 days using the mean-adjusted model and the 100days estimation period in calculating the abnormal return. The sample of this research is 221 companies which are determined by purposive sampling method. The one sample t-test result shows that the hypothesis that the market reacts negatively to the implementation of Phase 1 Large-Scale Social Restrictions in Jakarta is rejected, which means that the market does not react to the event.

KEYWORDS: covid-19, event study, abnormal return, mean-adjusted model, one sample t-test

I. INTRODUCTION

The capital market is a market for various financial instruments that can be traded, both debt securities (bonds), equities (stocks), mutual funds, derivative instruments and other instruments. Investors investing in the capital market certainly expect returns, the capital market is expected to provide results or will increase its value in the future. Of course, investors always expect the highest profit from the type of investment chosen, but the risk of failure to invest in the capital market cannot be eliminated.

Information from an event that can affect the reaction of the capital market is information that is considered important and capable of influencing share prices. If the information is considered good news it will have a positive impact on the market, but if the information is considered bad news it will have a negative impact on the market.

This study analyzes the market response to the implementation of Phase 1 of the Large-Scale Social Restrictions (known as PSBB) in Jakarta due to the Covid-19 pandemic that is hitting Indonesia. The importance of Jakarta's position as the nation's capital and business center in Indonesia where almost 70% of the money in circulation is in Jakarta, so the implementation of Large-Scale Social Restrictions is expected to have a major impact on the national level and get a response from the market.

The Covid-19 (Corona Virus Disease 2019) pandemic was first discovered in Wuhan City, China at the end of December 2019. This virus has spread very quickly and has spread to almost all countries, including Indonesia, in just a few months. The outbreak of Covid-19 caused respiratory problems in humans which resulted in the city of Wuhan, where the outbreak began, having to decide on a lock down to slow the spread of the virus. But it did not stop there, this virus began to spread to all regions of the world including Indonesia.

The capital city of Jakarta is the first region in Indonesia to apply the status of Large-Scale Social Restrictions to slow the spread and transmission of the Covid-19 virus. The Governor of DKI Jakarta, Anies Baswedan said that the implementation of Phase 1 of the Large-Scale Social Restrictions in Jakarta will take effect from Friday April 10th, 2020 to Thursday April 23rd, 2020. The PSBB will be in effect for the next 14 days and can be extended according to circumstances and situations. Based on data from the Ministry of Health, DKI Jakarta ranks at the top of the list of provinces that have contributed to the Covid-19 case in Indonesia. Overall, in the DKI Jakarta area, there were 50,671 cumulative cases as of Thursday 20th, September 2020.

Based on the news published by CNBC Indonesia, the decision of the Governor of DKI Jakarta, Anies Baswedan to impose large-scale social restrictions (known as PSBB in Indonesia) caused the domestic stock market to collapse. Recorded on 10th, September 2020 at 10:36 AM (in West Indonesia Time), the Jakarta Composite Index (IHSG) dropped 5% and trading was suspended (trading halt). An index whose condition is more severe is the LQ45 Index with constituents of stocks that have liquid trading and reliable performance. It was observed that LQ45 subsidence was worse than IHSG, namely 5.70%. It was recorded that 33 of the 45

constituents of the LQ45 index fell more than 6% so that they touched the Lower Auto Reject (known as ARB in Indonesia) level or approached the ARB level.

II. METHODS

This study uses a short period of time (short event window) for 7 days. The seven days period is used with the following distribution: t-3 (pre-event, 3 days before PSBB implementation), t = 0 (event-day, the first day of PSBB implementation), t + 3 (post-event, 3 days after implementation PSBB). The timing of the seven days period was used in order to avoid the presence of other factors affecting the study results (confounding effect).

This research is located at Indonesia Stock Exchange (IDX) by accessing the Indonesia Stock Exchange website, namely www.idx.co.id. The object of this research is the abnormal return of companies listed on the Indonesia Stock Exchange (IDX) during November 2019 to April 2020 according to the time of observation because the implementation of the PSBB was carried out on 10th – 23rd, 2020 and using the estimated t-103 to obtain the expected return value. namely from 12th, November 2019 to 6th, April 2020.

The calculation in this study uses a mean-adjusted model or an average adjusted model that assumes the value of the expected return is constant and the value is the same as the average previous actual return during the estimation period. The mean-adjusted model is used because the PSBB event affects the market as a whole or it is said that the event does not affect a particular industry or company.

To obtain an expected return whose value is constant with the average actual return during the estimation period, an estimation period of 100 days is used, from 103 days of stock trading before the event (t-103) to 4 days of stock trading before the event (t-4). The estimated period of 100 days is assumed to be sufficient to predict the return during the event period. In addition, there are several companies that carry out corporate actions before the event 100 days or before (t-103) which can affect stock prices so that the assessment is not focused on obtaining the expected return for the PSBB event.

The random sample in this study was calculated using the Slovin formula with the following notation: $n = N / (1 + N(e^2))$. There are 27 companies that do not actively carry out trading activities or companies are suspended by the Indonesia Stock Exchange (IDX) at all times. Then the number of samples obtained is 221 companies with the following calculations:

$$\begin{aligned} n &= N / (1 + N(e^2)) \\ &= 654 / (1 + 654(5\%)^2) \\ &= 654 / (1 + 654(0.05)^2) \\ &= 654 / (1 + 1,635) \\ &= 654 / 2,635 = 221 \end{aligned}$$

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 descriptive statistics can be seen in Table 1.

Table 1. Descriptive Statistic Test Results of Cumulative Abnormal Return (CAR)

Variable	N	Min	Max	Mean	Std. Deviation
Cumulative Abnormal Return (CAR)	221	-0.0124	0.0183	0.0018	0.0109

Source: Research Data, 2021

Table 1 shows that the Cumulative Abnormal Return (CAR) statistic which was carried out for 7 days of observation with the 221 companies used obtained the minimum CAR value of -0.0124 owned by Panin Sekuritas Tbk. (PANTS). The maximum CAR value of 0.0183 is owned by Kabelindo Murni Tbk. (KBLM). The average CAR value is -0.003 with a standard deviation of 0.0109.

Table 2. Normality Test Results of Cumulative Abnormal Return (CAR)

		Cumulative Abnormal Return (CAR)
N		221
Normal Parameters ^{a,b}	Mean	0.001771
	Std. Deviation	0.0109328
Most Extreme Differences	Absolute	0.173
	Positive	0.173
	Negative	-0.15
Test Statistic		0.173
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Source: Research Data, 2021

Based on Table 2, it shows that the value of the Asymp Sig. (2-tailed) from the Cumulative Abnormal Return (CAR) on the implementation of PSBB stage 1 of $0.200 > 0.05$, which means that the data is normally distributed, so it can be continued to the parametric statistical test, namely the one sample t-test.

Table 3. Results of One Sample t-test Cumulative Abnormal Return (CAR)

	Test Value = 0					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
CAR	0.429	221	0.683	0.002	-0.008	0.012

Source: Research Data, 2021

Based on Table 3, it is obtained cumulative abnormal return of t value of 0.429 with a significance value of $0.683 > \alpha (0.05)$, which indicates that there is no market reaction to the implementation of PSBB stage 1, where H_1 is rejected and H_0 is accepted.

IV. CONCLUSION

Based on the results of the analysis and discussion, the conclusions that can be drawn are for 7 days of stock trading around the date of implementation of Phase 1 Large-Scale Social Restrictions (PSBB) in Jakarta using the cumulative abnormal return (CAR) variable without involving confounding effects such as stock splits, mergers and acquisitions show that the event of the implementation of Phase 1 Large-Scale Social Restrictions in Jakarta did not get a reaction from the market. This can be seen from the results of testing hypothesis 1 using the one sample t-test, the t value is 0.429 with a significance value of $0.683 > \alpha (0.05)$. This means that the implementation of phase 1 of the Large-Scale Social Restrictions in Jakarta does not contain valuable information that can influence investors in making investment decisions.

Based on the research results and conclusions, the advice that can be given is that investors should be more careful in investing in the capital market when a large-scale social restriction application occurs and for further researchers it is hoped that they can use different calculation models, using various samples kinds of sectors, and various indexes on the Indonesia Stock Exchange (IDX).

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