

## **Effect of PSBB Policy on Stock Prices and Trading Volume of JCI Activity (Before and During PSBB Volume 2)**

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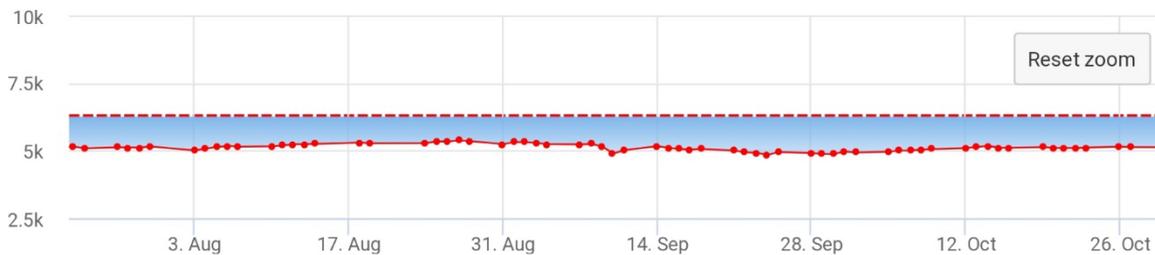
**Abstract** : *This study examines an event study, regarding the difference in the JCI stock price and trading volume activity (TVA) in events before and during the PSBB policy volume 2. Secondary data comes from the pre-opening session (pre-opening) of stock trading on the stock exchange on 27 July -11 Nov 2020. The research sample taken is the JCI. This study uses the Wilcoxon signed rank test analysis. The results showed that the average stock price in the events before and during the PSBB policy volume 2 there was a difference in the JCI stock price, while the results from the trading volume activity (TVA) test showed that there was no difference in the average trading volume before and during incident. Based on the results of these tests, it is indicated that PSBB volume 2 is a negative and positive sentiment that caused a reaction to stock transactions causing this event to make investors worried even though trading volume increased.*

### **1 INTRODUCTION**

Economic growth in the world has decreased due to Covid-19, one of which is Indonesia. Based on data, Indonesia's economic growth is minus 5.32 percent. Because it continued to decline, the government implemented the PSBB 1 policy in April to prevent or suppress the rate of increase in deaths which had too big an impact on the economic sector when compared to the lockdown. Several activities were restricted when the PSBB was enforced, such as activities at schools, workplaces, religion, public facilities, social culture, and public transportation. This is all done so that the spread of COVID-19 does not further spread to various regions in Indonesia (Junaedi, 2020). After PSBB 1 was implemented, it turned out that there was still an increase in Covid-19 deaths which turned out to have an impact on economic growth which continued to decline. Therefore, the government has again implemented PSBB volume 2 on September 14 - September 27, 2020, there are still some people who ignore health protocols, social distancing, or physical distancing because there is still a lack of self-awareness in handling this case, so it is less effective. In addition, there are still several offices, entertainment venues, restaurants that are open when the PSBB has been implemented. If all people contribute to implementing this policy, the spread of COVID-19 will decrease (WWD, 2020). The strict PSBB may have a negative impact on mall operators because malls are an attraction for consumers to always visit. The total PSBB property development does not have a material impact because marketing sales are very low and only increasing. The sector that benefits is the property sector which has a portfolio of industrial estates compared to those that focus on recurring income businesses, such as malls and development (Irman, 2020).

Some people who work in a company have many workers who are laid off and even laid off, so they are confused about what work to do to meet their daily needs. In addition, the spread of the corona virus has an impact on financial markets around the world, resulting in investors experiencing very high losses. On the other hand, investors must immediately make decisions in dealing with conditions like this (Zhang et al., 2020). The outbreak of the COVID-19 pandemic has had a profound impact on all sectors. Including the financial sector, in this case the Indonesian stock market. The stock market tends to decline when the PSBB is implemented in DKI Jakarta, because the retail, transportation, hospitals, malls, toll roads and construction sectors are closed. In addition, a stricter PSBB in DKI Jakarta is likely to have a negative impact on the local economy. Toll road traffic is also likely to be affected due to the slower mobility of people in DKI Jakarta. In particular, the Jakarta inner-

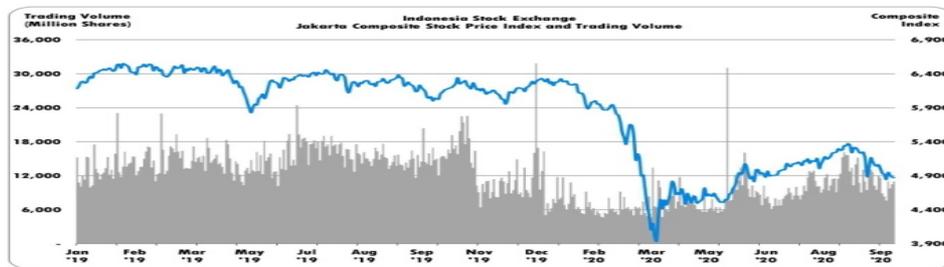
city toll road (Cawang-Tomang-Pluit) contributes about 9% of PT. Jasa Marga Tbk. Then PSBB is also possible to slow down construction activities in DKI Jakarta due to stricter health protocols (Irman, 2020).



**Figure 1. Chart of stock movements (JCI) before and during PSBB volume 2**

Source: [www.idx.co.id](http://www.idx.co.id) (Data has been processed)

The decline in stock prices that occurred in Indonesia was the impact of COVID-19 which was then tightened again by the PSBB policy volume 2 in September so that stock prices fluctuated. The detailed decline in share prices for PSBB volume 2 can be seen in Figure 2.



**Figure 2. Trading Volume (JCI) before and during PSBB volume 2**

Source: [www.idx.co.id](http://www.idx.co.id) (Data has been processed)

Figure 2 shows the volume of stock transactions. Since the Covid-19 continues to spread in March, transaction volume has continued to fluctuate, just like stock prices. There is a very significant difference before and after the 1st volume of PSSB policy was implemented in April and 2nd in September. When the market goes down, is faced with Covid-19, then issues policies to reduce the effects of the pandemic, it will have a positive impact on stock returns. Therefore, it is very important to understand what effect stock market policies have (Narayan et al., 2020). In stocks, the risk is very high in losses but behind that the stock has a high profit. Opportunities to get profits on stock investments can reach hundreds of percent in a matter of months, which can be offset by the same percentage of losses if the investment is not managed properly, especially during Covid-19. The risk experienced by investors in investing in stocks is not knowing the direction of movement of a stock. Stocks have fluctuating movements (Alhazami, 2020).

The Composite Stock Price Index occupies the 5th position in the ASEAN region with a decline since the beginning. As is the case with other countries (Chess, 2020). JCI had dropped drastically to touch its lowest level at Rp. 3,911.71 to maintain the declining market conditions. OJK (Financial Services Authority) and the Indonesian stock exchange issued several policies, such as reducing 1.5 hours of stock exchange trading from normal trading hours that have been in effect since March 30, 2020, OJK also gave the issuer the freedom to buy back shares without asking for prior approval in the process. general meeting of shareholders, implemented a policy of pausing trading for 30 minutes in the event of a 5% decrease in intraday trading (Putri, 2020). Banking is one of the largest industries that play a major role in contributing to the value of the JCI on the Indonesia Stock Exchange, namely the banking industry. The banking industry as a driving force for the economy plays a role in collecting and distributing funds to the public. Since Covid-19, banks have limited the amount of credit disbursement but still must pay remuneration to deposit customers, banks focus on minimizing defaults by creditors, but on the one hand the government's policy to carry out social distancing and lockdowns in several areas has resulted in many business actors finding it difficult to run their business and have the potential to fail to pay (Putri, 2020).

The condition of a company can be seen in addition to the turnover received, it can also be seen from the company's stock price. The stock price shows how much stock the supply and demand for the stock is. When the demand for these shares' increases, the share price also increases. Meanwhile, if the demand for the stock falls, the stock price will fall. Companies must always pay attention to this (Nurmasari, 2020). Various previous studies related to the impact of COVID-19 on stock prices and trading volume showed inconsistent results. Dedi Junaedi (2020) explained that the COVID-19 pandemic conditions and social distancing policies (WFH and PSBB) affected the dynamics of the capital market (JCI), but a study conducted by Irman (2020) showed that there was no significant difference between stock prices before the PSBB was implemented. and during the PSBB (Siswanto, 2020). This research was motivated by previous research studies which showed different results. The legal basis for regulating PSBB is Law (UU) Number 6 of 2018 concerning health quarantine. In the Law (UU) it is explained that further provisions regarding the criteria and implementation of PSBB are regulated by Government Regulation (PP) as a derivative regulation of the Law. To deal with the corona virus disease that has become a pandemic, including Indonesia, the government issued PP No. 21 of 2020 concerning Large-Scale Social Restrictions (PSBB) in the context of accelerating the handling of Corona virus Disease 2019 (COVID-19).

## 2 LITERATURE REVIEW

### Large-Scale Social Restrictions (PSBB)

According to Marleni et al., (2020), PSBB is one type of implementation of health quarantine in the region, in addition to home quarantine, hospital quarantine, and regional quarantine. The purpose of the PSBB is to prevent the spread of the Public Health Emergency (KKM) that is happening between people in a certain area. Restrictions on activities carried out at least include holidays from schools and workplaces, restrictions on religious activities and or activities in public places or facilities. According to Sari (2018), stock prices are the present value of cash flows that will be received by shareholders in the future. The stock price can also be interpreted as a price formed from the interaction of sellers and buyers of shares motivated by their expectations of company profits, for that investor need information related to the formation of these shares in making decisions to sell or buy shares.

### Stock Price Type

According to Mufreni & Amanah (2015), stock prices also reflect the value of a company. If the company achieves good performance, then the company's shares will be in great demand by investors. Good achievements achieved by the company (issuer). Issuers are obliged to publish financial statements in a certain period. This financial report is very useful for investors to assist in making investment decisions such as selling, buying, or investing in shares. According to Nurmasari (2020) the volume of stock transactions is the number of shares traded in a certain period. The volume of stock transactions shows how much investors are interested in making transactions, both buying and selling shares of a company. A high transaction volume value does not necessarily indicate a high stock price. The value of this transaction volume can change due to events that occur both within itself and other events that occur outside the company. The index calculation represents the movement of stock prices in the market/exchange that occurs through the auction trading system. The Base Value will be adjusted quickly if there is a change in the issuer's capital or there are other factors that are not related to the share price. Adjustments will be made if there are additional new issuers, rights issue (right issue), partial/company listings, warrants and convertible bonds as well as delisting. In the event of a stock split, dividends, shares or bonus shares, the base value is not adjusted because the market value is not affected. The share price used in calculating the JCI is the share price in the regular market which is based on the price based on the auction system. The calculation of the JCI is carried out every day, namely after the close of trading every day. In the near future, it is hoped that the JCI calculation can be done several times or even in a few minutes, this can be done after the automated trading system is implemented properly.

### Research Design

Based on the main problems that have been formulated, several theoretical studies discussed, as well as

the hypotheses that have been submitted previously, the authors can describe the framework of thought as follows:

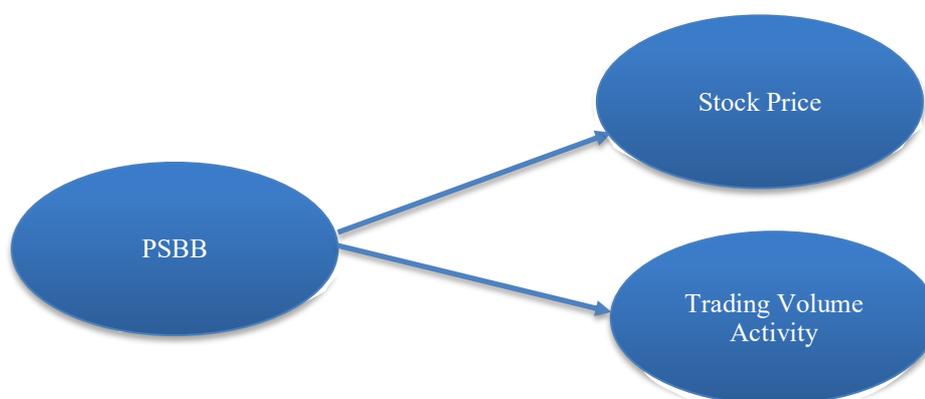


Figure 1. Research Design

### 3 METHODOLOGY

This research is a type of event study research. In this study, the authors want to test how significant the effect of the PSBB policy on stock prices and the JCI trading volume activity before and during PSBB volume 2. The observation period is divided into two, namely the estimation period and the event period. The model used in this study is a market adjusted model. The market adjusted model does not need to use an estimation period to form an estimation model (Jogiyanto in Luhur, 2010). In this study, the observation period used was 60 trading days consisting of: 30 days before PSBB volume 2 and 30 days during PSBB volume 2. The research period of 60 days was chosen because the time span was deemed sufficient, because the event window is too long, it will cause two problems in practice, the first will reduce the power of statistical tests and result in errors when drawing conclusions about event significance and secondly, the longer the period, it is not easy to isolate the event window and confounding effects. The research period is as follows:

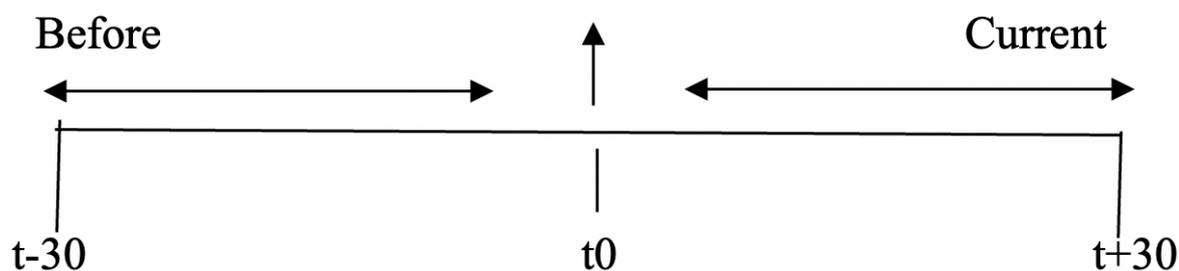


Figure 4. Research Period

This study uses two methods of collecting data, namely the documentation and search methods. The documentation method is carried out by studying secondary data published by the Indonesia Stock Exchange with the website <http://www.idx.co.id>, followed by calculations and recording. The search method is carried out by searching for information through journals and data available through the official website on the internet. The method used in this study uses the Wilcoxon Signed Rank Test analysis using SPSS version 25.

## 4 FINDINGS AND DISCUSSION

### Normality (Shapiro-Wilk Test)

In the initial stage, before testing the hypothesis, it is necessary to test the normality of the data using a test tool in the form of the EViews program. It can be seen whether there are differences in stock prices and trading volume activity before and after the PSBB policy volume 2 and also to avoid data bias, a normality test is carried out. The Shapiro-wilk statistical technique, which is a widely used hypothesis test, aims to determine whether the data is normally distributed or not, and the results can be seen in the table for testing the normality of stock price data and trading volume activity 30 days before and 30 days after the PSBB policy volume 2 in JCI.

**Table 1. Stock Price Normality Test**

	Tests of Normality					
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Stock Price (Before)	,154	30	,066	,960	30	,303
Stock Price (Current)	,185	30	,010	,912	30	,017

a. Lilliefors Significance Correction

Source: Data processed (2020)

Based on the results of the normality test in table 4.8, it can be seen that the Asymp value. Sig of the share price 30 days before and 30 days when the PSBB policy volume 2 was implemented, the stock price value before was 0.303 and when the PSBB policy volume 2 was 0.017. This result, when compared with Sig < 0.05, is smaller, so it can be concluded that the research data is not normally distributed.

**Table 2. Trading Volume Activity Normality Test**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TVA (Before)	,166	30	,035	,900	30	,008
TVA (Current)	,167	30	,033	,914	30	,019

a. Lilliefors Significance Correction

Source: Data processed (2020)

Based on the results of the normality test in table 4.9, it can be seen that the Asymp value. Sig from Trading Volume Activity (TVA) 30 days before and 30 days when the PSBB policy volume 2 was implemented, the TVA value before 0.008 and during PSBB policy volume 2 was 0.019. This result, when compared with Sig < 0.05, is smaller, so it can be concluded that the research data is not normally distributed.

### Hypothesis Test (Wilcoxon Signed Rank Test)

**Table 3. Test the Stock Price Hypothesis**

	Ranks			
		N	Mean Rank	Sum of Ranks
Stock Price (Current) – Stock Price (Before)	Negative Ranks	25 <sup>a</sup>	15,16	379,00
	Positive Ranks	5 <sup>b</sup>	17,20	86,00
	Ties	0 <sup>c</sup>		
	Total	30		

Source: Data processed (2020)

The negative ranks or the difference between the current stock price variable and the stock price before the PSBB volume 2 policy is applied are negative as many as 25 observations or in other words there are 25 observations on the stock price variable before which are less than the observations on the current stock price variable. And the average rank (equal to) 15.16 with a negative number of rankings #379. Positive ranks or the

difference between the current stock price variable and the positive stock price before as many as 5 observations or in other words there are 5 observations on the stock price variable before which are more than observations on the current stock price variable with an average rank of #17.20 and the number of ranks positive #86 Ties or no difference between the current stock price and the stock price before is #0 or no similar data.

**Table 4. Test Statistics**

Z	-3,013 <sup>b</sup>
Asymp. Sig. (2-tailed)	,003

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Source: Data processed (2020)

Asimp sig 2 tailed is 0.003 which is smaller than 0.05, thus it can be said that Ho is rejected which means there is a significant difference between the average difference in stock prices before and during the PSBB policy volume 2.

**Table 5. Testing the Trading Volume Activity Hypothesis**

Ranks				
		N	Mean Rank	Sum of Ranks
TVA (Current) - (Before)	Negative Ranks	15 <sup>a</sup>	16,07	241,00
	Positive Ranks	15 <sup>b</sup>	14,93	224,00
	Ties	0 <sup>c</sup>		
	Total	30		

Source: Data processed (2020)

The negative ranks or the difference between the current TVA variable and the TVA before the PSBB policy volume 2 was applied were negative as many as 15 observations or in other words there were 15 observations on the previous TVA variable which were less than observations on the current stock price variable. And the average rank is (equal to) 16.07 with a negative number of #241. The positive ranks or the difference between the current TVA variable and the positive TVA before the positive are 15 observations or in other words there are 5 observations on the previous TVA variable which are more than the observations on the current TVA variable with an average rank of #14.93 and a number of positive ranks #224 Ties or no difference between the current TVA and the previous TVA is #0 or no data is the same.

**Table 6. Test Statistics**

Z	-,175 <sup>b</sup>
Asymp. Sig. (2-tailed)	,861

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Source: Data processed (2020).

The asimp sig 2 tailed is 0.861 which is greater than 0.05, thus it can be said that Ho is accepted which means there is no significant difference between the average difference in trading volume activity before and during the PSBB policy volume 2.

## Discussion

### *Effect of stock prices before and during the implementation of PSBB volume 2*

The Composite Stock Price Index (JCI) on trading Wednesday (09/09/20) closed down nearly 2% or 1.81% to be exact at the level of 5,149.37. The pressure on the JCI has the potential to continue, the

implementation of Large-scale Social Restrictions (PSBB) volume 2 by the DKI Jakarta Provincial Government is the trigger. Trade data noted that foreign investors made a net sale of Rp 591 billion in the regular market with a transaction value of Rp 7.4 trillion. Pilarmas Investindo Sekuritas said the sentiment came from the DKI Jakarta government's policy of re-imposing the Large-Scale Social Restrictions (PSBB) volume 2. The PSBB certainly had a negative impact on the domestic capital market. The Director of Trading and Regulation of IDX members, Laksono Widodo, also said the same thing that the PSBB pushed the JCI to move into the red zone. However, this security sees that this time market participants and investors are expected to be more prepared to accept this, so that the decline occurs but with a low percentage while market participants and investors observe and observe further developments. Artha Sekuritas also said that investors have started to wait and see for some economic data. In addition, it is also influenced by high concerns about the Covid-19 case in Indonesia which will affect the economy until the end of the third quarter of this year.

#### *Effect on TVA before and during PSBB policy volume 2*

The Indonesia Stock Exchange (IDX) recorded an increase in data on the average transaction volume of 11.4 billion shares in a week. This figure increased by 2.02 percent compared to the previous close of 11.2 billion. In line with the JCI, this week's stock exchange market capitalization also increased by 0.87 percent to Rp 5,878 trillion from Rp 5,827 trillion last week when the PSBB was implemented. Yulianto said through a media broadcast on Friday (19/09/20) that the Indonesian capital market showed varied movements but still showed positive data in the one-week period.

## 5 CONCLUSION

Based on the results of research on differences in stock prices and trading volume activity 30 days before and 30 days during PSBB volume 2, it can be concluded that there is an influence between PSBB volume 2 on stock prices. This is evidenced by the results of the calculation of the Wilcoxon Signed Rank Test for the research period from July-November 2020 with a significance value of  $0.003 < 0.05$ . However, market participants and investors are expected to be more prepared to accept this security, so that the decline occurs but with a low percentage. The results of the Wilcoxon Signed Rank Test for trading volume activity before and during the PSBB policy volume 2 showed no effect, this was indicated by a significance value of  $0.861 > 0.05$ . This increase in transaction volume resulted in many investors buying and selling shares.

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