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Abnormal return of Indonesian banking shares in the time of COVID 19: An event study on the announcement of government regulation, POJK 11 of 2020



Erna Handayani^(a), Alni Rahmawati^(b), Eko Haryanto^(a), Sri Wahyuni^(a)

^(a) Universitas Muhammadiyah Purwokerto, Jl. KHA Dahlan 103 Purwokerto 53182, Indonesia

^(b) Universitas Muhammadiyah Yogyakarta, Tamantirto, Kasihan, Yogyakarta 55183, Indonesia

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ABSTRACT

With the pandemic Covid, the Indonesian government issued a fiscal policy through the Financial Services Authority (POJK 11 2020) on National Economic Stimulus as Policy Countercyclical Impact Deployment Coronavirus Disease, 2019. This study analyzes the reaction markets banking sector in Indonesia to the event announcement publication of these regulations. This quantitative study uses the Event Study methodology. This study uses abnormal return testing events on secondary data 45 Indonesian banks listed on the Jakarta Stock Exchange. The method of calculating the abnormal return uses the Market Model, with an estimated period of 21 days and a window period of 11 days. The research period was carried out between February 11 and March 20, 2020. The test carries out with an average of difference test before and after the event, with an error rate of 5%. Based on the cumulative abnormal return t-test, data shows that from minus five days, the regulation's announcement up to 5 days after which the market moves significantly negative. This event study is a news phenomenon of Indonesia's latest financial policies related to banking stocks during the Covid pandemic.

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Introduction

The economic downturn resulting from the Covid pandemic hit most countries in the world towards the global economic crisis. The crisis condition was caused by weakening demand due to reduced purchasing power and decreasing the supply side due to social restrictions. This is why urging the governments of countries in the world to issue policies to reduce the impact of the economic crisis. The banking sector reflects the economy in general. Concerns about bank liquidity and an increase in non-performing loans became issues during the Covid period. With social distancing, employee layoffs, and a downturn in the economy, it is difficult for most creditors to repay their loans. Fears of economic uncertainty also make people hesitant to deposit their funds in banks. This affects the amount of capital that can be managed by banks. In general, the world economy is entering a period of crisis that requires government intervention.

One indicator of Indonesia's economic crisis is the movement of the financial market on the Jakarta stock exchange. The Indonesia Stock Exchange decided to temporarily suspend (trading halt) because the Jakarta Composite Index (JCI) had a sharp correction of 5%. Since President Jokowi announced the first case of Covid in Indonesia on March 2, 2020, the JCI has been increasingly volatile; previously, the market was influenced by international markets. A decline in the JCI of up to 6.5% occurred on March 9, 2020, after which the Jakarta Stock Exchange held a trading halt several times. The stock market is sensitive to the Covid 19 news that has hit most countries in the world.

Monetary policy in times of crisis aims to reduce as much as possible the impact of the economic crisis. A crisis is defined as a relatively broad disruption of the regular operation of financial intermediation in such a way as to have significant macroeconomic effects (Rieth and Wittich, 2020). To maintain financial stability, maintain economic growth, and optimize the banking intermediation

* Corresponding author. ORCID ID: 0000-0003-0419-6920

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function, the Indonesian government issued several financial policies to anticipate the impact of Covid 19. The Indonesian Financial Services Authority issued regulations on federal economic stimulus as a measure to anticipate the impact of the spread of Covid 19 by issuing POJK No. 11/POJK.02/2020. Policy Indonesian government consists, policy to reduce lending rates, to extend the loan period of up to one (1) year, a reduction in principal and interest arrears credit to specific borrowers, additional credit facilities, as well as the conversion of the loan into equity while (OJK, 2020). In summary, this POJK regulates banking policies to support economic growth by providing concessions for borrowers in fulfilling their obligations. This POJK applies to national banks, including BUK, BUS, UUS, BPR, and BPRS. Several business sectors that received stimulus are tourism, transportation, hotels, trade, processing, agriculture, and mining. Allowance for settlement of debtor liabilities with a ceiling of up to 10 billion. This policy targets MSMEs and the middle and lower class affected by Covid 19. Another policy is to restructure the credit payment schedule without a credit ceiling limit. The Stimulus provisions as a countercyclical policy for the impact of Covid 19 were promulgated on March 20, 2020, and are valid until March 31, 2021(OJK, 2020).

Fiscal policies, such as government stimulus policies, influence stock market movements. (Cahyono and Fitriadiansyah, 2017;Tamechika, 2020). The influence on the stock market can be positive or vice versa. On the negative side, stock players think that credit restructuring will disrupt bank liquidity because some credit payments are delayed. The tip of this situation is the decline in bank profitability and lower banking stock prices. In contrast, stock market players see the positive effect of credit restructuring as helping banks overcome the threat of non-performing loans due to the pandemic. This can be a consideration for capital market players to invest in the banking market.

Therefore, this study aims to determine how the influence of financial markets on POJK Policy Number 11 / POJK.02 / 2020. Sometime before the POJK was issued, the money market was already affected by the spread of Covid 19 and the international stocks' movement. The question is whether this government stimulus policy affects the national banking stock market in Indonesia.

This paper presents the literature on stock abnormal returns and event studies, some related research and then analyzes the main phenomena that are being discussed.

Literature Review

Financial researchers have long conducted event studies to examine the effects of an event. The first publication on the methodology of the study of events was carried out in 1933 by Dolley (Minenna, 2003). Abnormal returns are identified as estimation errors in predictions during the period H (Minenna, 2003). The estimation error is explained as the difference between the actual return and expected return (expected return). The statistical model that is widely used in finding abnormal returns is the Market Model.

Positive abnormal stock returns indicate a positive signal or good news from an event. Where positive abnormal return occurs if the actual return (actual return) is greater than the expected return of investors (expected return) or vice versa if the abnormal stock return is negative f, an event that occurs contains information for related parties. This information has signaled to influences individual and organizational behavior and the theory signal (Connelly et al., 2011). The events tested in the study event are very diverse and continue to develop, issues of mergers, acquisitions, internal company issues, external company issues, political policies, health issues (endemic and pandemic), etc. Events that contain information will affect the market. In general, it affects the price of a particular security or affects the purchase amount of a particular security.

The existence of negative company information can lead to abnormal returns on company shares. For example, in research Hung (2019), leakage of company information raises company information security. On the other hand, positive company information such as the announcement of awards/awards on company performance affects the company's shares' abnormal return (Basri et al., 2019). Several other studies examining the political events related to companies' abnormal stock return as research (Eldomiaty et al., 2020) that examine the political events in Egypt, Islami (2012) examined the effects of the change politics in Indonesia's finance minister. The other different result study analyzes the stock price reaction to Indonesia's announcement won the Investment Grade with no significant abnormal return effect (Suryanto, 2015)

Market efficiency theory states that stock prices fully reflect all available information and react quickly to new information (Gitman and Zutter, 2012). Market efficiency is divided into three forms, namely Weak Form, which describes the capital market state where stock prices are formed on the full historical information. Semi Strong form describes the condition of the capital market in which the stock price is formed from historical information and published information. The strong form describes the capital market state, where share prices reflect all information, including published and personal information (Elad and Bongbee, 2017).

Clarifying the theory above can be seen in the following framework:

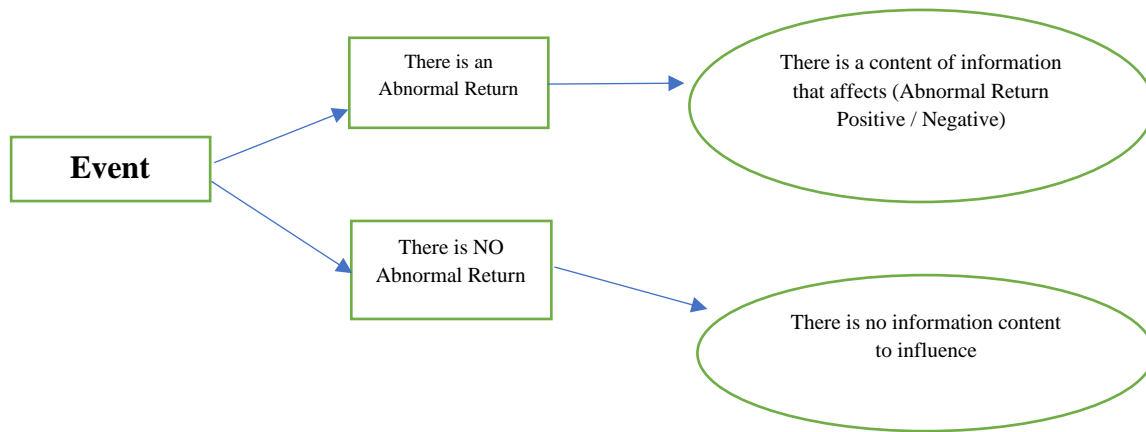


Figure 1: Framework

Event studies are mostly conducted by examining abnormal returns on company acquisitions or mergers (Elad and Bongbee, 2017; Mardiyati and Haryanto, 2018), government policy announcement events, for example, tax amnesty (Cahyono and Fitradiansyah, 2017), company internal policy announcements events such as company share buyback (Lin and Chen, 2019), stock stocks split (Utami, 2017), changing of tick size (Perwitasari et al., 2017) and other internal company factors such as profitability, growth in changes in the capital structure (Thuy et al., 2019).

Kim et al., (2020) conducted an event study of 91 restaurant industries in North America by examining the effects of four epidemic disease outbreaks (avian flu, swine flu, BSE, and Salmonella Infantis) on restaurant enterprise value. The results showed that the epidemic had a significant negative effect on firm value in the epidemic's initial year. For the incidence of subsequent years, it had no significant effect. The research also features testing of company characteristics that help reduce the impact of the outbreak. Tamechika (2020) examines a study of events on car company stocks in Japan regarding the Japanese government's stimulus program, namely tonnage tax reduction and acquisitions and a subsidy program for environmentally-friendly vehicles. The Japanese government issued this stimulus program to overcome the consequences of the 2008 economic crisis. The results show that the tax relief for environmentally friendly vehicles has a positive direct impact on companies.

Based on an empirical event study that looks for an event's impact, this study examines the effect of the information content of the Indonesian government's fiscal policy through the Financial Services Authority. POJK No. 11 of 2020, which was announced on March 16, 2020. This event study looks at the presence or absence of abnormal returns in the window period five days before and five days after POJK No. 11 of 2020 announced.

The study is formulated in the following hypothesis:

H1: The market reacts to the announcement of POJK No. 11 of 2020 as a national economic stimulus due to the Covid pandemic 19.

Research and Methodology

This study's population is all banking stocks in Indonesia that are listed on the Indonesia Stock Exchange (IDX) in the financial sector of the banking sub-sector. Total banks in the financial sub-sector are 45 banks. The form of quantitative data is the closing price of 45 banking shares in the IDX financial sector on the day of the window period, the market share price index and the volume of shares traded, and the volume of shares outstanding during the window period.

The Indonesian Financial Services Authority Regulation on Indonesia's national economic stimulus in dealing with the impact of Covid 19, namely POJK No. 11 of 2020, was signed on March 13, 2020, and officially announced to the public on March 16, 2020. March 16 became the date for the establishment of the window period. The window period is created five days before March 16, 2020, and 5 days after March 2020. With working days other than Saturday and Sunday, the window period is March 11,12,13,16,17,18,19,20 March 2020. The estimated period is 20 days before the window period's date, starting on February 11, 2020. Considering these dates, the influence of the Covid pandemic information in several countries has affected stock players in Indonesia. The Covid pandemic as a Public Health Emergency that is troubling the world is determined by WHO starting January 30, 2020, while the first case of Covid in Indonesia was announced on March 2, 2020. The estimated period starts from February 11, 2020, to March 10, 2020.

The abnormal stock return (A.R.) and cumulative abnormal return (CAR) are calculated from the data collected.

Operational definition and formulation of hypotheses:

Abnormal Return (A.R.)

It is the advantage of the return that occurs against the expected return (Charles, 2009). The real return or realized return is the return at time t, which is the difference between the current price and the previous price. With the formula:

$$AR_{it} = R_{it} - E(R_{it})$$

AR_{it} = Abnormal return rate of return for security i during period t

R_{it} = Actual rate of return on securities i during period t

$E(R_{it})$ = the expected rate of return for security i during period t

Cumulative abnormal return (CAR) is the average number of abnormal returns during the observation period.

$$CAR = \sum AR$$

Formulation of research hypotheses

H_0 : $AR = 0$ The market did not react to the announcement of POJK No. 11 of 2020 as a national economic stimulus due to the Covid pandemic 19.

H_1 : $AR \neq 0$ The market reacted to the announcement of POJK No. 11 of 2020 as a national economic stimulus due to the Covid 19 pandemic.

With a significant level of 5% (0.05), it is used to test the hypothesis. Testing the research hypothesis with the following criteria:

If probability (significance) > 0.05 (α) or t count < t table means that the hypothesis is not proven, then H_0 is accepted H_1 is rejected.

If the probability (significance) < 0.05 (α) or t count > t table means the hypothesis is proven, then H_0 is rejected, and H_1 accepted.

Data analysis methods

The one-sample t-test is a hypothesis test to compare the sample mean of certain values (Gerald, 2018) whether the population means differs from some known values (tests) (Salkind, 2010). The study was conducted by selecting a sample of observations from the population of interest and estimating the population means by calculating the sample mean. The formula for comparing samples is as follows (Salkind, 2010):

$$t = \frac{\bar{x} - \mu}{s/\sqrt{n}},$$

The sample means, μ is the test value, s is the sample standard deviation, and n is the sample size. This t-value can then be used to determine the likelihood that there is a difference between the sample mean and the test scores compared to the results. The one-sample t test is used, for example, to compare the sample mean and the sample midpoint of the test variable and also to determine whether a process with a certain mean could have generated the observed sample (Gerald, 2018). Before the one-sample T-test, it is necessary to test for normality to decide whether to use a parametric test or a non-parametric test. The entire statistical framework assumes of normality. The normality assumption should be checked before analyzing data when comparing the means of two or more groups because the validity of the results depends on the normality test. According to (Pallant, 2007), the assumption of normality in this study uses the Shapiro-Wilks test because the sample size is less than fifty (Gerald, 2018).

Result and Discussion

The normality test with the Shapiro Wilk test gets the results of the value of each t, which will be tested differently above 0.005, so the sample data can be continued with the tone sample test. The cumulative abnormal return (CAR) significance can be determined by comparing the t- calculated CAR value with the t - table value in 45 samples of banking stock data in Indonesia in the window period and the estimated period with an error rate of 5%. The following is a table of t value with t table of the significance of cumulative abnormal return and significance test of one sample test with SPSS.

Table 1: Value t arithmetic and t table CAR

Period t	t-count	t-table
t-5	-8,261	2.017
t-4	-7,531	2.017
t-3	-8,611	2.017
t-2	Day off	
t-1	Day off	
t 0	-8,220	2.017
t + 1	-8,354	2.017
t + 2	-7,554	2.017
t + 3	-8,314	2.017
t + 4	-8,983	2.017
t + 5	Day off	

Source: Data processed, 2020

The one-sample test significance test shows the significance of cumulative abnormal stock returns from h-5 to h + 4 (minus holidays) shows a significant value <0.05 . The significant value indicates that there is an abnormal stock return in the window period. Abnormal stock returns indicate that, in general, the banking market in Indonesia has responded to the Indonesian Economic Stimulus Policy with the announcement of the Indonesian Financial Services Authority Regulation No. 11 years old. 2020.

Table 2: T-test

One-Sample Test						
	Test Value = 0			Mean Difference	95% Confidence Interval of the Difference	
	t	df	Sig. (2- tailed)		Lower	Upper
tmin5	-8,261	44	.000	-3622304925.77778	-4505963980.3711	-2738645871.1845
tmin4	-7,531	44	.000	-3470529692.48889	-4399334528.5776	-2541724856.4002
tmin3	-8,611	44	.000	-3802505220.33333	-4692417595.7642	-2912592844.9025
t	-8,220	44	.000	-3702403484.35556	-4610113186.4463	-2794693782.2649
tplus1	-8,354	44	.000	-3770384974.15556	-4680028207.3268	-2860741740.9843
tplus2	-7,554	44	.000	-3377838482.51111	-4279017434.7857	-2476659530.2366
tplus3	-8,314	44	.000	-3674800884.17778	-4565565478.8745	-2784036289.4810
tplus4	-8,983	44	.000	-3885395476.64444	-4757064793.0313	-3013726160.2576

Source: Data processed, 2020

Furthermore, the average difference test (t-test) shows the t-calculated CAR value in the window period above the t-table value. The movement of the CAR value in the window period shows a significant negative value ranging from -7,554 on the second day after the announcement to the highest on the 4th day after the announcement, namely -8,983. N use-values CAR is negative shows that the return of each stock during the window period; the value is smaller than the market return. The existence of negative abnormal returns during the window period indicates that the market has responded negatively to banking market conditions due to the Covid pandemic's impact. The market is starting to think about the heavy burden on banks to receive the Covid pandemic impact. The decline in the national economy will reduce creditors' ability to repay the credit in banks or non-banking financial institutions. There are two things that are of concern, namely the decline in third-party funds in the form of savings, time deposits, and other public savings. The second is to increase the creditors' non-performing loan ratio, which increases the bank's non-performing loans.

After the government issued a national economic stimulus regulation at t_0 (2st March 2020) things arese was still negative, indicated by a significant CAR value of negative - t + 4 reaching -8,983, indicating the issuance of OJK regulation no. 11 of 2020 does not affect banking capital market pessimism, the purpose of issuing a credit restructuring policy is to reduce non-performing loans to banks and help the community through the Covid pandemic impact. However, banks must also prepare sufficient funds to maintain liquidity. This is indeed a difficult choice for banks that have fewer liquidity levels. Besides, if banks do not restructure debt or loans, banks must increase their allowance for losses on accounts or allowance for impairment losses (CKPN), thereby eroding the liquidity level.

Something is interesting from the results of the study is that there is an abnormal return of stocks in all window periods. In line with the aim of the stock study event in general, namely knowing the effect of an event on the stock market, these results generate new questions. Is there no information content in the POJK announcement no. 11 of 2020 that moves stocks? Information content can move the stock market towards a negative or positive significant effect. This is predictable for several reasons:

- i. Information about government policies contained in POJK No. 11 of 2020 has been leaked before. Several media have informed about the planned debt restructuring program to overcome the impact of Covid before POJK No.11 of 2020 is officially announced.
- ii. In general, banking capital market conditions moved negatively during the Covid pandemic. The rules on economic stimulus contained in POJK no. 11 of 2020 have not provided positive expectations for banking capital market players.
- iii. A financial market is pessimistic about POJK no. 11 of 2020. Some banking industry players see the burden of banking liquidity if debt restructuring is carried out.

Conclusion

The Covid pandemic entered Indonesia in January 2020, significantly affecting the capital market and the Indonesian economy. Like all governments of other countries, the Indonesian government has issued various economic stimulus policies to reduce the impact of the pandemic on the economy. POJK no. 11 of 2020 is one of the government policies aimed at helping the general public and also the banking world at the same time. The results of this study indicate that POJK no. 11 of 2020 has not been able to shift the pessimism of the capital market, which has moved negatively along with the pandemic in Indonesia. The negative significance of abnormal returns has occurred sometime before POJK no. 11 of 2020. Further research can be carried out to see market movements in line with POJK no. 11 of 2020 until it takes effect, namely March 31 2021. The research results can be used as a reference for stakeholders in implementing POJK policy no. 11 of 2020. It is crucial for banking actors to balance between restructuring, bank liquidity capabilities, and continuing to monitor problem creditors. As far as the information obtained in this study, abnormal returns have occurred during the start of the pandemic, and it cannot be predicted until when negative abnormal movements occur.

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