THE EFFECT OF GOVERNMENT POLICY ON STOCK RETURNS DURING COVID-19 PANDEMIC IN INDONESIA

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ABSTRACT

This study and analyze the impact of the announcement of the government's social distancing policy on stock returns and the impact of the announcement of the government's health policy on stock returns. This study uses a quantitative approach. The population in this study uses data on the COVID-19 stringency index, COVID-19 containment and health index, and the exchange rate. The results show that the announcement of the government's social distancing policy has a positive and significant effect on stock returns, and the government's health policy has a positive and significant impact on stock returns. recommendations were obtained for the government to accelerate the stability of the stock market by conducting more intensive socialization related to the dangers and prevention of COVID-19 and recommendations for investors to apply the best strategy in investing in pandemic conditions by conducting fundamental and technical analysis, conducting stock portfolios, choosing business sectors that are still needed in pandemic conditions.

Keywords: COVID-19 Stringency Index; COVID-19; Health Index; Stock Return

INTRODUCTION

In Indonesia, the government announced an event regarding the presence of COVID-19 on March 2, 2020 (Saputro, 2020). According to the official website Indonesia.go.id (2020), two Indonesian citizens (WNI) living in Depok were found positive for COVID-19 after interacting with Japanese (WNA) people. This situation not only disrupts the activities of the health sector, but also affects various steps of life, and has a major impact on world trade such as China, the United States, Japan, South Korea and Indonesia, causing the growth of a world recession. This caused a public reaction, so the government took various steps to combat COVID-19. Examples of public reactions are public panic over the need for basic necessities, masks and hand sanitizers, as well as many people who stockpile basic necessities, masks and hand sanitizers and then resell them (Saputro, 2020).

Regulation of the Minister of Health Number HK.01.07/MENKES/239/2020 (Corona.jakarta.go.id: 2020) of the Republic of Indonesia. Large-Scale Social Restrictions (PSBB) are restrictions on certain activities by residents in areas suspected of being infected with COVID-19. With the PSBB policy in Indonesia, people can work from home, stop studying temporarily at school, limit religious activities, and stop working outside the home. Na’afi (2020), COVID-19 does not only cause health problems, but also social impacts such as public panic, crisis of confidence, and the most serious consequences of the slowdown in national economic growth. The COVID-19 pandemic caused economic losses as reflected in the decline in stock prices. The COVID-19 pandemic in Indonesia has impacted the capital market and changed the trading hours of the Indonesia Stock Exchange. This is a negative
sign (bad news), with investors interested in selling shares (Kusnandar and Bintari, 2020). In Indonesia, this also has a negative impact on the capital market and affects investors in making investment decisions (Pitaloka et al., 2020).

**Figure 1.1**

Composite Stock Price Index (JCI/RHS) for the period May 2019-May 2020

Based on Figure 1, the Indonesian stock market was very stable before COVID-19 outbreak in Wuhan, China. After that, it spread to various other countries including Indonesia so that it had a bad impact on the situation and condition of the community, especially health and the economy. The largest decline in the value of the JCI occurred in February and March 2020, when COVID-19 began to claim positive victims in Indonesia, and the number continues to increase from time to time. At the end of March 2020, the Indonesian government began implementing the PSBB policy for its citizens.

Trading conditions on the Indonesia Stock Exchange experienced severe pressure since the beginning of 2020 as evidenced by the decline in the Jakarta Composite Index (JCI) by 18.46%. The Financial Services Authority (OJK) announced in March 2020 that the spread of the COVID-19 virus caused the Jakarta Composite Index (JCI) to fall to its lowest level in history. At the beginning of the news, the increase in COVID-19 cases had an impact on the stock market. JCI fell to 3,937.63 on March 24 and then rose again to 4,338.90.

The decline in the JCI figure was due to the effects of COVID-19 and the oil price war. So that the impact of the outflow of foreign funds increased threefold, and the JCI decreased. Lower JCI levels affect other strains. Market participants also turned to gold investment due to panic at the beginning of the decline in the JCI and other stock indexes.

This study uses the COVID-19 variable, Government Response, Health Index and also other variables such as Exchange Rates. Exchange Rate is the unit price of a currency in another currency. Foreign exchange rates are determined in the foreign exchange market, which is the market where different currencies are traded (Samuelson and Nordhaus, 2004). In this study, the exchange rate used is the rupiah exchange rate against the United States Dollar (US) exchange rate with data on the closing price of the exchange rate. Research is a replication of research 2020 which aims to examine the expected economic impact of...
government actions by analyzing the effect of these actions on stock market returns. This study uses the *Oxford COVID-19 Government Response Tracker* (Ox-CGRT) database (Hale et al., 2020) to measure the government's response to the crisis led by COVID-19. OxCGRT has measured the government's response with three main indices: the tightness index, the health index, and the economic support index.

Ashraf's research (2020) found that social distancing policies have a direct negative impact on stock returns, while an indirect positive impact by reducing the growth rate of new confirmed cases. So that health policies and income support packages have a direct positive impact on stock returns, the results of his research provide evidence that the stock market has shown the impact of actions taken by the government.

This study aims at at least two important contributions to the existing literature. First, this study adds to the literature examining the impact of COVID-19 on financial sector outcomes. In this regard, a recent literature survey by Goddel (2020) and Yarovaya et al., (2020) revealed the COVID-19 pandemic may have an important impact on the functioning of the financial sector and is a promising research domain. Focusing on a more specific issue, Corbet et al., (2020) examined the impact of naming "corona" on stock returns and found that companies with the word 'corona' in their name experienced strong negative hourly returns and increased volatility. a huge hourly rate when the COVID-19 pandemic was announced.

Alfaro et al., (2020) focused on stock market returns and using data from US exchanges, found that stock market values declined in response to pandemics such as COVID-19 and SARS. Ashraf (2020) surveyed data from 64 countries and found that all stock markets gave a negative response to the occurrence of COVID-19, but this response was only due to an increase in the number of confirmed cases to an increase in the number of deaths.

Research conducted by Ashraf (2020) found that strict social distancing policies significantly weakened the stock market's negative reaction to the growth of confirmed cases of COVID-19. In this regard, Alfaro's (2020) research is comparable to Ashraf's (2020) which shows that higher national level uncertainty aversion significantly amplifies the negative stock market reaction to the growth in confirmed cases of COVID-19.

Based on the description above, the researcher wants to conduct research related to the Effect of Government Policy on Returns IHSG Stock Yields during the COVID-19 Pandemic in Indonesia with the objectives: 1) To find out and analyze the impact of the announcement of the government's social distancing policy on stock returns. 2) To find out and analyze the announcement of the government's health policy on stock returns.

**Research hypothesis**

**A. Government Social Distance Policy Announcement Causes Stock Yield Decline.**

The social distancing policy is the limitation of community activities that are limited by the government, for the calculation of the social distancing policy seen from nine response metrics. Based on the *Oxford ProjectCoronavirus Government Response Tracker* (OxCGRT) The nine metrics used to calculate the Index are: school closures; workplace closures; cancellation of public events; restrictions on public gatherings; closing public transportation; stay-at-home requirements; campaigns; restriction internal movement; and control of international travel.

Sauvagnat et al., (2020) estimate that a 10% increase in state-level labor restrictions in the US led to a 3% decline in employment and a 1.87% decline in the market value of firms in April 2020 alone. As investors assess this adverse valuation effect, the government's strict social distancing policies lead to a decline in stock market returns.
Apart from the direct negative effect on economic activity, social distancing may also have a positive economic impact by reducing the risk of death (Greenstone and Nigam, 2020; Thunström et al., 2020). In this case, Greenstone and Nigam (2020) predict that moderate social distancing in the US from late March 2020 will save 1.7 million lives by October 1 in the US. Most of the lives saved were due to avoiding redundant hospital intensive care units. Using the United States Government's estimated value of life statistics, they projected an $8 trillion economic benefit from social distancing through reduced mortality.

Thunström et al., (2020) estimate a net benefit of approximately $5.2 trillion from social distancing in the US. People in countries where governments implement strict social distancing policies are more likely to practice social distancing (Husain, 2020) as they have a lower chance of getting infected and consequently dying from the virus. Thus, the benefits of social distancing are mainly channeled through the reduction of new infections. A number of recent studies have shown that the stock market reacted to the growth in confirmed cases of COVID-19 with negative returns (Al-Awadhi et al., 2020; Ashraf, 2020). The study postulates that if social distancing has a positive impact by reducing new infections, then strict government social distancing policies will weaken the reaction of the market to negative stocks to the growth of confirmed cases.

B. Government Health Policy Announcement Leads to Increase in Stock Returns

Government Health Policy is a composite measure based on thirteen indicators of government policy response to the general public including school closures, workplace closures, travel bans, testing policies, contact tracing, face coverings, and vaccine policies. The stock market reaction to government policies regarding the health care system may be positive. For example, the government's aggressive information campaign raises awareness about the benefits of staying at home, cleaning public places and washing hands regularly. In addition, testing and contact tracing help identify infected and suspected cases. In the early phases of the pandemic, countries such as South Korea and Japan have achieved great success in controlling local outbreaks through extensive testing and contact tracing.

Better healthcare policies are likely to lead to a positive market reaction by increasing investor confidence and confidence in the government to control the pandemic. Better health policies are likely to yield benefits in terms of new infections and lower death rates. Lower mortality rates in turn provide enormous economic benefits in terms of more lives being saved (Greenstone and Nigam, 2020; Thunström et al., 2020). Therefore, if public awareness campaigns and testing and contact tracing have a positive impact by reducing new infections, then health policy announcements will weaken the negative stock market reaction to the growth of confirmed cases. From this explanation, the research hypotheses used are:

H1 Announcement of the government's social distancing policy lowers stock returns
H2 Announcement of government health policy increases stock returns

Theoretical framework in this study will explain the relationship between each variable described as follows:
RESEARCH METHODS
Population and Sample
This research uses the government response obtained from COVID-19 Stringency Index, for COVID-19, which uses data on the number of vaccinations and data on people affected by COVID in Indonesia. For stock returns, data are obtained from the Stock Price Index Composite the IDX, Health Index data obtained from the COVID-19: Containment and Health Index and data on exchange rates taken from the web (www.investing.com). The sampling method is probability / random sampling using documentation collection techniques in data collection.

Techniques Processing Data
Data processing is carried out using statistical software, namely Eviews 10.0. In this research the data used are time series chronological time series. A time series is a data object that consists of several time periods. The results of data processing are displayed in tabular format. The data in this study uses objects in a certain time period, with data analysis techniques used namely regression analysis using data time series (time series).

In this study the data were analyzed by:
1. Calculating Stock Yield
   
   \[
   \text{Stock Yield}_t = \left( \frac{P_t - P_{t-1}}{P_{t-1}} \right)_{100}
   \]

2. Calculating COVID-19 growth data
   
   \[
   \text{Covid-19}_t = \left( \frac{\text{cases}_t - \text{cases}_{t-1}}{\text{cases}_{t-1}} \right)_{100}
   \]

3. Calculating Exchange Rate (Exchange)
   
   \[
   \text{Kurs}_t = \left( \frac{\text{Kurs}_t - \text{Kurs}_{t-1}}{\text{Kurs}_{t-1}} \right)_{100}
   \]

Concept Operation
Operational variable a is the variable stated in the concept definition, which is operational and practical. The operational variables in this study are:

1. Independent variable or variable free is a variable that give effect or influence changes to the dependent variable with a symbol or symbol (X).

Model 1
   a. X1: The variable used is the number of people affected by COVID-19

Model 2
   a. X1: The first variable used is the number of people affected by COVID-19
   b. X2: The second variable used is the COVID-19 Stringency Index
   c. X3: The third variable used is Health Index
   d. X4: The fourth variable used is the USD/IDR exchange rate

2. Dependent Variable or the dependent variable is the affected variable represented by the symbol (Y).
   The dependent variable in this study is the Jakarta Composite Index (JCI).

Model Regression
The Effect of Government Policy on Returns IHSG Stock Yields during the COVID-19 Pandemic in Indonesia using multiple linear regression:

**Model 1**

\[ Y_t = \alpha + \beta_1 (Covid - 19)_t + \varepsilon_t \]  

**Information:**

- \( Y_t \) = Stock return Jakarta Composite Index (JCI).
- \( \alpha \) = constant
- \( \beta_1 \) = coefficient of variable regression \( X_1 \)
- \( Covid - 19 \) = data on people affected by COVID-19
- \( \varepsilon_t \) = error term

For model 2, data modification is carried out to determine the impact that occurs on stock returns through Government Response, COVID-19, Health Index, and exchange rates in Indonesia.

**Model 2**

\[ Y_t = \alpha + \beta_1 (Government response)_t + \beta_2 (Covid - 19)_t + \beta_3 (HealthIndex)_t + \beta_4 (kurs)_t + \varepsilon_t \]  

**Information:**

- \( Y_t \) = Stock yield (Jakarta Composite Index)
- \( \alpha \) = constant
- \( \beta_1 \) = regressive coefficient \( X_1 \)
- \( \beta_2 \) = coefficient of regressive variable \( X_2 \)
- \( \beta_3 \) = coefficient of regressive variable \( X_3 \)
- \( \beta_4 \) = variable regression coefficient \( X_4 \)
- \( Government response \) = COVID-19 Stringency Index
- \( Covid - 19 \) = data on people affected by COVID-19
- \( Health Index \) = COVID-19 Health Index
- \( Exchange rate \) = exchange rate USD/IDR
- \( \varepsilon_t \) = error term

**RESULTS AND DISCUSSION**

**Descriptive Analysis**

Description data provides an overview or description of characteristics of data variables used in research. The function of data description is to find out minimum value, maximum value, average value, standard deviation (level deviation spread data from each variable), and amount of data analyzed. Table 1 shows descriptive statistical values of each variable.

**Descriptive Statistics (N=198)**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Stock Yield</th>
<th>COVID (Soul)</th>
<th>GR</th>
<th>HI</th>
<th>EXCHANGE RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>mean</td>
<td>-0.205 %</td>
<td>2,956</td>
<td>61,668</td>
<td>56,822</td>
<td>-0.006 %</td>
</tr>
<tr>
<td>median</td>
<td>0.015 %</td>
<td>0.279</td>
<td>66,200</td>
<td>58,390</td>
<td>0.000 %</td>
</tr>
</tbody>
</table>
Based on Table 1, it is known that for stock returns variable obtained minimum value of -3.179 %, maximum value of of 1.282 %, and average value of -0.205 % and standard deviation 0.916 %. For the variable, the minimum value is -100,000 people, the maximum value is 225,714 people, and the average For the Government Response variable, the minimum value is 10,930, the maximum value is 80,090, and the average 61,668 and the standard deviation is . For the Health Index variable, the minimum value of 18,690, the maximum value of 74,230, the average value of is 56,822 and the standard deviation of is 15,445. For the exchange rate variable, the minimum value is -2.750, the maximum value is 1.710 %, the average value is -0.006 and the standard is 0.420 %.

Hypothesis test

Equation I

This study conducted a regression analysis to determine whether there was an effect of the COVID-19 variable on the stock return variable which can be seen in Table 2 below.

Equation I . Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.182817</td>
<td>0.063567</td>
<td>-2.875986</td>
<td>0.0045</td>
</tr>
<tr>
<td>COVID</td>
<td>-0.007735</td>
<td>0.002146</td>
<td>-3.604429</td>
<td>0.0004</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.062165</td>
<td>Mean</td>
<td>0.205688</td>
<td>0.916685</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.057380</td>
<td>SD dependent var</td>
<td>2.614853</td>
<td></td>
</tr>
<tr>
<td>SE of regression</td>
<td>0.889997</td>
<td>Akaike info criterion</td>
<td>2.648068</td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>155.2507</td>
<td>Schwarz criterion</td>
<td>2.628297</td>
<td></td>
</tr>
<tr>
<td>Likelihood logs</td>
<td>-256.8704</td>
<td>Hannan Quinn Criter.</td>
<td>1.876206</td>
<td></td>
</tr>
<tr>
<td>F-statistics</td>
<td>12.99191</td>
<td>Durbin-Watson stat</td>
<td>0.000397</td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed secondary data, 2022

Based on the table above, the form of the equation with the regression model is:

Return On Share = -0.182 - 0.007 COVID-19

The results showed that the effect of COVID-19 on Stock Returns obtained a significance value of 0.0004 or less than 0.05. This shows that COVID-19 has a negative and significant effect on stock returns.

Equation II

This study also conducted a regression analysis to determine whether there was an effect of the COVID-19, Government Response, Health Index, and Exchange Rate variables on the stock return variable which can be seen in Table 3 below.

Equation II . Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
</table>

Source: Processed secondary data, 2022

Based on the table above, the form of the equation with the regression model is:
<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-Statistic</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-3.210015</td>
<td>0.166313</td>
<td>-19.30102</td>
<td>0.0000</td>
</tr>
<tr>
<td>COVID</td>
<td>-0.002318</td>
<td>0.001288</td>
<td>-1.800454</td>
<td>0.0734</td>
</tr>
<tr>
<td>GR</td>
<td>0.015532</td>
<td>0.003897</td>
<td>3.985735</td>
<td>0.0001</td>
</tr>
<tr>
<td>HI</td>
<td>0.036145</td>
<td>0.003665</td>
<td>9.861792</td>
<td>0.0000</td>
</tr>
<tr>
<td>EXCHANGE RATE</td>
<td>0.075239</td>
<td>0.088137</td>
<td>0.853660</td>
<td>0.3944</td>
</tr>
</tbody>
</table>

Source: Processed secondary data, 2022

Based on the table above, the form of the equation with the regression model is:

\[
\text{RETURN ON SHARE} = -3.210 - 0.002\text{Covid-19} + 0.015\ \text{Government Response} + 0.036\ \text{Health Index} + 0.075\text{Kurs}
\]

The results showed that the following effects:

1. The effect of COVID-19 on Stock Returns obtained a significance value of 0.073 or greater than 0.05. This shows that covid-19 is not significant to stock returns, but covid has a negative effect on stock returns. A negative result means that there is an increase in the number of COVID-19 cases followed by a decrease in stock index prices. Then, the analysis can be said that the COVID-19 pandemic has a tendency to decrease the value of different industries in the short term. But in the end, all industries that were impacted by COVID-19 recovered in the long term. The results of this study are supported by the research of Q. He et al (2020) that COVID-19 has a short-term negative impact on the stock markets of the eight affected countries. This is in accordance with the results in the research table where the short-term effect of COVID-19 has a negative impact on the stock market in Indonesia.

2. The effect of Government Response on Stock Returns obtained a significance value of 0.0001 or less than 0.05. This shows that Government Response has a positive effect on stock returns. This is in line with research (Greenstone and Nigam, 2020; Thunström et al., 2020) where apart from the direct negative effect on economic activity, social distancing also has a positive economic impact by reducing the risk of death. By reducing the risk of death, people are safer in carrying out their activities so that they can return positive stock returns.

3. The effect of the Health Index on Stock Returns obtained a significance value of 0.0000 or less than 0.05. This shows that the Health Index has a positive effect on stock returns. Based on the results of the data output, the results of this study are in line with Ashraf’s research (2020) which found that government health policies affect stock returns. The stock market reaction to government policies regarding the health care system has had a positive impact. For example, the government’s aggressive information campaign raises awareness about the benefits of staying at home, cleaning public places and washing hands regularly. In addition, testing and contact tracing help identify infected and suspected COVID-19 cases. So better health policies will result in benefits in terms of new infections and lower mortality rates. Lower mortality rates in turn provide enormous economic benefits in terms of more lives being saved (Greenstone and Nigam, 2020; Thunström et al., 2020). Therefore,
health policy announcements will weaken the negative stock market reaction to the growth of confirmed cases.

4. The effect of the Exchange Rate on Stock Returns has a significance value of 0.394 or greater than 0.05. This shows that the exchange rate has no effect on stock returns. This result is also supported by the research of Salsabila (2016) which shows that the exchange rate has no significant effect on the JCI, so this study shows that the exchange rate does not have a direct influence on influencing investors to invest in the stock market. According to Saur Costanius Simamora (2021), the exchange rate partially has a positive and significant effect on the IHSG on the IDX for the First Quarter of 2021. The increase in the dollar against the Rupiah is bad for local companies that have foreign debts denominated in US dollars, so that the burden borne by the company will be more and more, resulting in a decrease in company profits. This caused investors to be reluctant to invest in stocks and resulted in a decline in the JCI.

5. Based on Table 3, the F value is 108.5347 with a significance of 0.000. Significance value < 0.05, this shows that together COVID-19, Government Response, Health Index and Exchange Rate have an effect on Stock Returns.

6. Based on Table 3, the R square value is 0.6922 or 69.22%. This shows that the joint effect of COVID-19, Government Response, Health Index and Exchange Rate on Stock Returns is 69.22%. While the remaining 31.78% is influenced by other variables outside the study.

CONCLUSION

The results of this study reveal two research hypotheses, the first result of the study shows that the government response or the announcement of the government’s social distancing policy has a positive effect on stock returns. The results of this study are different from Ashraf's (2020) research which found that government response has a negative effect on stock returns. However, the results of this study are in line with (Greenstone and Nigam, 2020; Thunström et al., 2020) where apart from the direct negative effect on economic activity, social distancing also has a positive economic impact by reducing the risk of death. Hussain, (2020) countries where the government implements strict social distancing policies are more likely to practice social distancing and therefore have a lower chance of getting infected and dying from the COVID-19 virus. Thus, the benefits of social distancing are mainly channeled through the reduction of new infections and have a positive impact.

The two research results also show that the health index or government health policy has a positive effect on stock returns. The results of this study are in line with Ashraf's (2020) research which found that government health policies affect stock returns. The stock market reaction to government policies regarding the health care system has had a positive impact. For example, the government's aggressive information campaign raises awareness about the benefits of staying at home, cleaning public places and washing hands regularly. In addition, testing and contact tracing help identify infected and suspected COVID-19 cases.

In the early phases of the pandemic, countries such as South Korea and Japan have achieved great success in controlling local outbreaks through extensive testing and contact tracing. Better health policies are likely to lead to a positive market reaction by increasing investor confidence and confidence in the government to control the pandemic. Better health policies are likely to yield benefits in terms of new infections and lower death rates. Lower mortality rates in turn provide enormous economic benefits in terms of more lives being saved (Greenstone and Nigam, 2020; Thunström et al., 2020). Therefore,
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**REFERENCE LIST**


