Macroeconomics and the LQ45 Index: Is the COVID-19 pandemic making a difference?

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Abstract

This study examines how macroeconomic indicators and Covid-19 cases can affect the movement of the LQ45 index. The Covid-19 case was also studied as a moderator between the relationship between macroeconomic indicators and the LQ45 index to determine whether the Covid-19 case needed to be a crucial consideration when investing in stocks using macroeconomic indicator analysis techniques. This study was tested using multiple regression analysis methods. The results of the analysis found that the factors that were found to significantly affect the LQ45 index were the exchange rate which impacted the LQ45 index significantly negatively, the price of Brent oil, which involved the LQ45 index significantly negatively, the DJIA index, which positively affected the LQ45 index, and the case of Covid-19 which affects the LQ45 index significantly negatively. This study found two macroeconomic variables that had no significant effect on the LQ45 index: the inflation rate and real interest rates. Furthermore, the results has found a negative effect of the Covid-19 pandemic on the LQ45 index, so it is hoped that the government and investors can consider this research indicator as a consideration in making economic and investment decisions.

Keywords:
LQ45 Index, Macroeconomics, Covid-19 Cases, Investment

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Introduction

The dramatic development of the capital market is currently attracting a lot of new investors who are optimistic about the benefits of the moment of fluctuation in the price of investment instruments, especially stocks that have a high level of fluctuation (Hung et al., 2019). The Indonesian Central Securities Depository (KSEI) noted an increase in the number of capital market investors, which has increased by more than 50% every year for the last three years. Behind the opportunity for a large stock return, there is also a big risk that must be borne by investors due to the high level of fluctuation. In the Indonesian capital market, IDX provides an index with the category of blue chip stocks listed in the LQ45 index, where these stocks are used as indicators that reflect the behavior of large capitalization stocks with good company fundamentals.

Stocks in the LQ45 index are always re-evaluated every six months due to changes in the issuer's performance, indicating that the LQ45 index does not always appreciate. At the beginning of 2020, the LQ45 index experienced a sharp correction. The trigger for this significant decline in the LQ45 index stems from the emergence of the coronavirus disease pandemic or known as Covid-19 (Putra, 2021). Covid-19 is a disease outbreak that has brought world attention to the fact that the negative impact of the spread of this virus is not only on medical health but also affects the economic and psychological conditions of most investors, resulting in a simultaneous decline in the stock market (Khan et al., 2020).

Starting in 2021, the average performance of LQ45 companies began to stabilize and grow with strong fundamentals after many policies were taken by the government to maintain economic conditions in Indonesia, but the LQ45 index still tends to be sluggish and actually pushes the JCI down (Ramadhani, 2021).

The movement of the LQ45 index describes conditions that tend to fluctuate and suppress the increase in the JCI when the Covid-19 pandemic only entered Indonesia in March 2020. According to Simbolon and Purwanto (2018), the factors that can impact the movement of the stock index are divided into three categories: domestic factors, foreign factors, and capital flows. These factors are related to macroeconomic variables such as changes in the domestic exchange rate, inflation rate, and interest rates that can affect foreign investors' interest in investing more in domestic stocks (Prawoto & Putra, 2020). On foreign factors, the domestic economy can be affected by fluctuations in the price of Brent oil, which can impact investment activity (Cheng & Reeves, 2021). Economic conditions in other countries with a strong influence are considered to be a factor in fluctuations in the domestic economy, such as the Dow Jones Industrial Average (DJIA).

Present study develops the literature found in previous studies and is associated with the LQ45 index, which was found to be statistically affected by the Covid-19 pandemic. This study does research by Rahmayani and Oktavilia (2020), Kamaludin et al. (2021), and Wang et al. (2021), a reference for this research model. The results of this study support that macroeconomic indicators and Covid-19 cases that act as independent variables are valid stock index measuring tools. This study modifies the previous research by adding the Covid-19 case as a moderating variable to determine whether the Covid-19 case can strengthen or weaken the relationship between variables in this research model.
Hypothesis development

Investors use the LQ45 index as an indicator that reflects the behavior of blue chip stocks in Indonesia (Prakoso et al., 2018). To become a blue chip stock and be included in the LQ45 index, the issuer must have the highest liquidity criteria and market capitalization with good company fundamentals. The LQ45 index includes 45 publicly listed issuers re-evaluated annually by the IDX. The LQ45 index is suitable for conservative investors with a low-risk profile in investing (Jannah & Nurzauziah, 2018).

Exchange rates and stock index

The exchange rate is the price of a currency when it is exchanged for another currency. The determination of the exchange rate in a country depends on the demand and supply of the related currency (Al-Azizah et al., 2019). Prawoto and Putra (2020) suggest that the exchange rate can affect the stock index significantly positively in the short and long term because the increase in the exchange rate has an impact on company costs which increase due to the rise in import prices of production factors so that the level of profitability of companies decreases and has an effect on the decline in the stock index. Other studies that have found that exchange rate appreciation can negatively affect stock indexes, such as research by Priyono (2022), Salamat et al. (2021), Andika and Djamaluddin (2020), Rahmayani and Oktavilia (2020), proved that the appreciation of the USD/IDR exchange rate had an impact on the increase in production factors obtained from import activities in Indonesia. The rise in production prices has the effect of decreasing the company’s profit, so it also has an impact on reducing investor interest in investing. Based on this description, this research hypothesis is formulated as follows:

H1: The exchange rate has a significant effect on the LQ45 index.

Inflation rate to stock index

Inflation occurs when there is an increase in the overall price of goods in a sustainable period (Simbolon & Purwanto, 2018). Moreover, the inflation rate can affect the stock index in two ways. On the one hand, an increase in inflation that raises input prices can reduce companies’ profitability, which has an impact on the decline in the price of shares listed on the index. This is also stated by Salamat et al. (2021), Prawoto and Putra (2020), Situngkir and Batu (2020), and Chang et al. (2019), which proves that the inflation rate can negatively affect the stock index. Simáková et al. (2019) revealed that, on the other hand, an increase in inflation that affects an increase in input prices tends to increase output prices so that companies can generate higher profits, thereby increasing investors’ expectations of rising dividends in the future. Based on this description, the formulation of this research hypothesis is as follows:

H2: The inflation rate has a significant effect on the LQ45 index

Actual interest rates to stock index

In Indonesia, the BI7DRR interest rate adjusts to the inflation rate to achieve the inflation target in implementing monetary operations so that the nominal interest rate and the inflation rate are interrelated and create a fisher effect (Rahmayani & Oktavilia, 2020). By extension, interest rates need to be adjusted for inflation to understand actual interest
rates over time (Fessenden, 2015), Simáková et al. (2019), Salamat et al. (2021), Setiawan (2020), Banda et al. (2019), and Wahyudi et al. (2017) argue that interest rates can negatively affect the stock index. Interest rates are one of the company's considerations for investing in new equipment and technologies that impact the company's growth and expansion. In contrast to the results of this study, several other studies support the absence of an effect between real interest rates on stock indices as well as evidenced by Sabatta et al. (2021), Andika and Djamiluddin (2020), Tammu (2020), Rahmayani and Oktavilia (2020). Based on this description, the formulation of this research hypothesis is as follows:

**H3:** Real interest rates have a significant effect on the LQ45 index

**Brent oil prices to stock indices**

The volatility of international oil prices, such as the price of Brent oil, follows a whole business cycle that reflects the condition of the world economy. This volatility also impacts the regional economy (Mohan et al., 2019). Hashmi et al. (2020) examine the effect of world oil prices on stock indices in oil-exporting and oil-importing countries. The study found that in oil-exporting countries, the price of oil has a positive impact on the stock index, while in oil-importing countries, the price of oil has a negative impact on the stock index. As an oil importing country which is the object of this research should make the increase in world oil prices has a negative effect on the stock index in Indonesia. Other studies, such as Priyono (2022), Prawoto and Putra (2020), and Rahmayani and Oktavilia (2020), also support the relationship between these two variables. Based on this description, the formulation of this research hypothesis is as follows:

**H4:** The price of Brent oil has a significant effect on the LQ45 index.

**Effect of DJIA index on stock index**

The DJIA index has become the oldest market index in the United States stock market. The existence of economic globalization makes it easier for investors to connect on one exchange with other countries' businesses, which is explained in the Contagion effect theory. Several research findings also support a significant positive relationship between the DJIA index and the stock index in the countries studied, such as research by Kamaludin et al. (2021), Rahmayani and Oktavilia (2020), Oktavia et al. (2018), and Chandra (2016). On the other hand, Prawoto and Putra (2020) found that the DJIA index has no effect on the stock index in the short term, but the DJIA index has a significant adverse impact on the stock index over a long time. Based on this description, this research hypothesis is formulated as follows:

**H5:** The DJIA index has a significant effect on the LQ45 index

**Effect of the Covid-19 pandemic on stock indices**

Several studies have extracted an analysis of the market perspective on the economy due to the Covid-19 pandemic, which has become an emergency from 2019 to 2021. According to behavioral finance theory, emergency events can affect the psychology and behavior of investors, which ultimately disrupt supply chains worldwide. (Khan et al., 2020). Several previous studies identified the impact of rising Covid-19 cases on the stock market in several countries when the Covid-19 pandemic was taking place, such as the results of
research by Priyono (2022), Kamaludin et al. (2021), Li et al. (2021), and Udeaja and Isah (2021). These studies found a negative effect on the increase in Covid-19 cases on stock indices because it impacted the performance of the companies being invested. Based on this description, the formulation of this research hypothesis is as follows:

**H6:** The DJIA index has a significant effect on the LQ45 index

The COVID-19 pandemic moderates macroeconomic effects on stock indices

Using macroeconomic factors such as exchange rates, inflation rates, interest rates, Brent oil prices, and the DJIA index does not fully explain the essential phenomena that lead to high fluctuations in stock indexes. The impact of the Covid-19 pandemic has dropped many stock indexes in various countries to their lowest point in the last ten years. Several new studies conducted by Priyono (2022), Kamaludin et al. (2021), and Rahmayani and Oktavilia (2020) have also extracted an analysis of the market perspective on the economy due to the Covid-19 pandemic, which became an emergency at the end of 2019 and during 2020. Based on this description, the formulation of this research hypothesis is as follows:

**H7-11:** The Covid-19 pandemic moderates the effect of exchange rates, inflation, real interest rates, Brent oil prices, and the DJIA index on the LQ45 index.

![Diagram of research model](image)

**Figure 1.**
*Research model*

**Methods**

**Object of research**

The object of this research is the LQ45 index listed on the IDX. This study examines the variables that affect the LQ45 index, which acts as an indicator of the behavior of large capitalization stocks in Indonesia (Prakoso et al., 2018). The variables tested for their effect on the LQ45 index are macroeconomic variables such as exchange rates, inflation rates, actual interest rates, oil prices, the DJIA index, and Covid-19 cases. The Covid-19 case is also believed to moderate the relationship between macroeconomic variables and the LQ45 index. The data test period for the object of this research is monthly data starting from January 2012 – December 2021.
Variable Measurement

This study uses three variables: the dependent variable, the independent variable, and the moderating variable. The LQ45 index in this study was used as the dependent variable. Exchange rates, inflation rates, actual interest rates, oil prices, the DJIA index, and Covid-19 cases are dependent variables. The Covid-19 case in this study also acts as a moderating variable.

Table 1. Measurement

<table>
<thead>
<tr>
<th>Construct</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indeks LQ45</td>
<td>Ln_INDEX_t</td>
</tr>
<tr>
<td>Exchange rate (ER)</td>
<td>Ln [Median ER = ( \frac{ER \text{ sale} + \text{buying rate}}{2} )]</td>
</tr>
<tr>
<td>Inflation</td>
<td>Fix</td>
</tr>
<tr>
<td>Actual Interest Rate</td>
<td>( r_t = i_t - \pi_t )</td>
</tr>
<tr>
<td>Oil price</td>
<td>Ln_oil price_t</td>
</tr>
<tr>
<td>DJIA index</td>
<td>Ln_INDEX_JIA_t</td>
</tr>
<tr>
<td>COVID-19 pandemic</td>
<td>Dummy variable</td>
</tr>
</tbody>
</table>

Data analysis

This study was tested through a quantitative approach using multiple regression models. Researchers determine the variables in the form of numbers and tests using statistical procedures assisted by the Eviews 12 application. The method of testing this research data is time series analysis, where observations are made repeatedly on a time series that allows the research target to act as its control.

Results and discussion

Statistics descriptive

Based on Table 2, this study observed as many as 120 research samples. The LQ45 index, which became the dependent variable of this study, had the lowest and highest values, namely at IDR 645.69 and IDR 1,105.760. The average price of the LQ45 index over the last ten years is IDR 867,03. A standard deviation of Rp indicates the average variation of the L45 index data is 105.44. Meanwhile, the Covid-19 case in this study is a dummy variable, so the lowest value is 0, and the highest value is 1. The average Covid-19 in this study is 0.183, which is closer to the lowest value, which means that the research period is dominated by no cases of Covid-19. The standard deviation of the descriptive statistics shows a value of .38.

The domestic macroeconomic indicators studied were the exchange, inflation, and actual interest rates. The exchange rate is known to have the lowest and highest values at 9,00 and IDR 16,367. The average USD/IDR exchange rate for the last ten years is IDR 12,94, - with a standard deviation of IDR 1,73 -. The inflation rate for the previous ten years showed the lowest value; the highest were .01 and .08. The average inflation rate in Indonesia in the period of this study is .04, and the average value of
inflation rate data that deviates is .02. Actual interest rates in this study have the lowest and highest values of -.02 and .04. The average weight of interest rates is at a value of .01 with a standard deviation of .01.

This study also examines foreign macroeconomic indicators, such as Brent oil prices and the DJIA index. Brent oil prices were at lows at $14.85/barrel and highs at $123.41/barrel. The average price of Brent oil during the period of this study was $71.59, with the average variation of Brent oil price data at $26.18. While on the DJIA index’s lowest closing price during this research period was $12,393.45, and the highest closing price was $36,338.30. The average price of the DJIA index over the last ten years stands at $21,463.00. The variation of the DJIA index price data is $6,335.59

### Table 2.

**Data descriptive**

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LQ45 index</td>
<td>645.69</td>
<td>1,105.76</td>
<td>867.03</td>
<td>105.448</td>
</tr>
<tr>
<td>Exchange rate</td>
<td>9.00</td>
<td>16.36</td>
<td>12.94</td>
<td>1.73</td>
</tr>
<tr>
<td>Inflation</td>
<td>0.01</td>
<td>0.08</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>Actual interest rate</td>
<td>-0.02</td>
<td>0.04</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>Brent oil price</td>
<td>14.85</td>
<td>123.41</td>
<td>71.59</td>
<td>26.18</td>
</tr>
<tr>
<td>DJIA index</td>
<td>12.39</td>
<td>36.33</td>
<td>21.46</td>
<td>6.33</td>
</tr>
<tr>
<td>Covid-19 cases</td>
<td>0.00</td>
<td>1.00</td>
<td>0.18</td>
<td>0.38</td>
</tr>
</tbody>
</table>

### Hypothesis testing

The F test in the regression model of this study resulted in an F value of 72.11, and the significance value indicated by the calculated F was .00. This significant level is below the error rate of .05, so it can be stated that the exchange rate, inflation rate, real interest rate, Brent oil price, DJIA index, and Covid-19 cases in this study have a simultaneous effect on the LQ45 index.

### Table 3.

**Regression results**

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>4.995</td>
<td>0.810</td>
<td>6.165</td>
<td>0.000</td>
</tr>
<tr>
<td>Exchange rate</td>
<td>-0.489</td>
<td>0.141</td>
<td>-3.478</td>
<td>0.000</td>
</tr>
<tr>
<td>Inflation</td>
<td>0.592</td>
<td>0.753</td>
<td>0.787</td>
<td>0.433</td>
</tr>
<tr>
<td>Actual interest rate</td>
<td>0.332</td>
<td>0.863</td>
<td>0.384</td>
<td>0.701</td>
</tr>
<tr>
<td>Brent oil price</td>
<td>-0.094</td>
<td>0.029</td>
<td>-3.217</td>
<td>0.002</td>
</tr>
<tr>
<td>DJIA index</td>
<td>0.686</td>
<td>0.073</td>
<td>9.418</td>
<td>0.000</td>
</tr>
<tr>
<td>Covid-19 cases</td>
<td>-0.290</td>
<td>0.020</td>
<td>-14.322</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 3 shows that the exchange rate variable, Brent oil price, DJIA index, and Covid-19 cases have a significance level below the error rate of .05, so these variables significantly affect the LQ45 index. However, the inflation rate and actual interest rate variables show a significance level above the error rate of .05, which means that these variables do not significantly affect the LQ45 index. Based on the results of the H1 test, the coefficient value shows -.48, and the significance level offers .00, which is below the error level of .05. The test results show H1 is acceptable, where the exchange rate significantly affects the LQ45 index. When the exchange rate appreciates, the production factors originating from
imports become more expensive, causing the company's foreign debt to increase and the company's profit to decrease. Investors consider the decline in the company's profitability to withdraw their investment again, which negatively impacts the LQ45 index (Priyono, 2022).

Based on the results of the H2 test, it was found that the coefficient value was 0.592, which means it has a positive relationship, but the significance level shows a value of 0.433, which is above the error rate of .05, so it can be concluded that the inflation rate has no significant effect on the LQ45 index. The results of this study contradict the H2 of this study which argues that the exchange rate has a substantial impact on the LQ45 index because the inflation rate can increase the risk of stock investment. Andika and Djamaluddin (2020) explain that when investing, investors have expectations of a higher stock return than the inflation rate. Yuniningsih et al. (2019) also stated that inflation causes companies that have export activities to use local raw materials, thereby increasing profits and capital so that they will be included in the LQ45 index and boost the increase in the LQ45 index.

Furthermore, the results of the H3 test found that the coefficient value was .33, which means it has a positive relationship, but the significance level shows a value of .70, which is above the error rate of .05, so it can be concluded that actual interest rates have no significant effect on the LQ45 index. The results of this study contradict H3, which argues that actual interest rates significantly impact the LQ45 index. The findings of this study support the opinion of Prakoso et al. (2018), who claims that the type of LQ45 index investor usually invests in the long term with the expectation of obtaining a higher rate of return than bank interest rates so that changes in real interest rates do not have much impact on the decisions of LQ45 index investors.

Based on the results of the H4 test, the coefficient value shows -.09 points. This finding means that for every 1 point strengthening in the price of Brent oil, the LQ45 index will decrease by .09. The hypothesis test results also show a significant level of .00, below the error rate of .05. This result is per H4, which states that the price of Brent oil significantly affects the LQ45 index. This study's results align with the opinion of Hashmi et al. (2020), who found a negative influence between world oil prices on stock indexes in oil-importing countries. Since most of Indonesia's oil sources come from imports, increasing world oil prices can impact increasing costs for companies that use petroleum as a production factor (Asmarini, 2022). Thus, the profitability of these companies increases, resulting in a decrease in the LQ45 index.

Based on the results of the H5 test, the coefficient value shows .68 points. This finding means that every 1-point strengthening in the DJIA index can increase the LQ45 index by .68 points. The hypothesis test results also show a significant level of .00 below the error level of .05. This result is the same as statement H5, where the DJIA index significantly positively affects the LQ45 index. The results of this study follow the opinion of Kamaludin et al. (2021), Rahmayani and Oktavilia (2020), and Andika and Djamaluddin (2020). This study proves that LQ45 index investors are aware of the influence of the United States as a superpower country which gives a strong signal to investors of the LQ45 index so that these two countries have integrated capital markets due to economic globalization. Based on the results of the H6 test, the coefficient value shows -.29, and the significance level offers .00, which is below the error level of .05. So it can be concluded that H6 is acceptable where the Covid-19 case has a significant adverse effect on the LQ45
index, which follows the results of research by Priyono (2022), Kamaludin et al. (2021), Li et al. (2021), and Irfan et al. (2021).

The negative impact of the Covid-19 case on stock indices created a lot of negative investor perspectives on the entire company industry, whose operational activities were disrupted, and the company’s profitability decreased. The psychology and behavior of investors are increasingly disturbed when Covid-19 cases soar, and there is no certainty in a pandemic situation. The LQ45 index even touched the lowest closing price of IDR 691,131 in the last ten years when the new Covid-19 pandemic occurred in Indonesia in March 2020. Due to the Covid-19 pandemic phenomenon, which was found to have a significant effect on the performance of the LQ45 index movement, this study utilizes the Covid-19 cases as a moderating variable to determine the impact of the Covid-19 pandemic further using Moderated Regression Analysis (MRA) which is shown in Table 4.

Table 4. Moderating effect

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>5.39</td>
<td>0.81</td>
<td>.00</td>
</tr>
<tr>
<td>M1</td>
<td>-1.35</td>
<td>0.68</td>
<td>.05</td>
</tr>
<tr>
<td>M2</td>
<td>-30.39</td>
<td>11.02</td>
<td>.00</td>
</tr>
<tr>
<td>M3</td>
<td>-37.24</td>
<td>12.45</td>
<td>.00</td>
</tr>
<tr>
<td>M4</td>
<td>0.057</td>
<td>0.13</td>
<td>.66</td>
</tr>
<tr>
<td>M5</td>
<td>-0.94</td>
<td>0.40</td>
<td>.02</td>
</tr>
</tbody>
</table>

Table 4 shows that the Covid-19 case variable can moderate the relationship between the inflation rate, real interest rate, and the DJIA index to the LQ45 index so that H8, H9, and H11 are acceptable, but the Covid-19 case variable is not able to moderate the relationship between the exchange rate and oil prices. Brent against the LQ45 index so that H7 and H10 are rejected because they do not meet the t-test requirements.

Practical implications

The company's performance on the LQ45 index, which can change, indicates that stock price movements do not always experience an upward trend. At the beginning of 2020, the LQ45 index experienced a correction, and companies listed on the LQ45 index recorded a decrease in net profit for that year. The trigger for this significant decline in the LQ45 index stems from the emergence of the coronavirus disease pandemic or known as Covid-19 (Putra, 2021). Covid-19 is a disease outbreak that has brought the world’s attention to the fact that the negative impact of the spread of this virus is not only on the medical side of health but has also stopped economic and business activities globally. The speed of the reach of Covid-19 affected the psychology, and economic conditions of most investors, so many investors withdrew their capital back, which resulted in a simultaneous decline in the stock market (Khan et al., 2020). Starting in 2021, the average performance of LQ45 companies began to stabilize and grow with solid fundamentals after the government took many policies to maintain economic conditions in Indonesia. However, the LQ45 index is still sluggish, pushing the JCI down (Ramadhani, 2021).

At the same time, the LQ45 index is an investment product in great demand by investors and investment managers, such as Bareksa, Avrist, Panin, Ciptadana, and other investment institutions. In the second semester of 2021, while still in the pandemic period,
the performance of the LQ45 index has started to show positive movements along with the entry of foreign investors into Indonesia.

This research has found a negative effect of the Covid-19 pandemic on the LQ45 index, so it is hoped that the government can continue to anticipate a surge in Covid-19 cases to maintain domestic capital inflows to advance domestic development. Investors it is expected to consider macroeconomic indicators and the global pandemic that affects the stock index invested because Indonesia has now entered the era of the worldwide economy. Other macroeconomic indicators apart from those studied in this study are also expected to be added for consideration by investors and the government in making economic decisions.

Limitations and further study agenda

The researcher is aware of the limitations of this study by only analyzing the macroeconomic environment and the Covid-19 case as the cause of the movement of the LQ45 index. Because there are still many factors that can affect the direction of the LQ45 index, it is hoped that further research can analyze other factors that can affect the movement of the LQ45 index.

Conclusion

This study analyzes macroeconomic indicators that can affect the movement of the LQ45 index and examines the effect of Covid-19 cases as an independent and moderating variable in the relationship between macroeconomic indicators and the LQ45 index. Domestic macroeconomic factors in this study, such as the exchange rate, were found to significantly negatively affect the LQ45 index due to increased production costs originating from imports, thereby reducing the company's profitability. This result can reduce investors' interest in investing because the company's performance also declines. Other domestic macroeconomic factors, such as inflation and real interest rates, were found not to affect the LQ45 index because the psychology and habits of LQ45 index investors tend to invest for long-term goals. This type of investor expects that the shares that have been purchased will rise higher than the inflation rate and real interest rates. This result means that movements in the inflation rate and real interest rates that are still reasonable cannot influence the investment decisions of LQ45 index investors.

In addition to domestic factors, foreign macroeconomic factors such as the price of Brent oil were found to affect the company's production costs because Indonesia is an importing country of oil that is used as industrial raw material, thus negatively affecting the LQ45 index. On the other hand, the DJIA index is a foreign factor that can positively affect the LQ45 index because the DJIA index is a capital market belonging to the United States, which is a superpower country that creates economic globalization. Thus, the DJIA and LQ45 indices have an integrated fluctuation relationship.

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