Comparative Analysis of Share Index Movements Due to the Impact of the Covid-19 Pandemic on The JCI and JII Indexes in Indonesia

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ABSTRACT

The stock index is the primary reference used to show increases and decreases in stock prices and the performance of all stocks on the Indonesia Stock Exchange (IDX). This study aims to determine whether there is a difference between the movement of the JCI and JII indices due to the impact of the Covid-19 pandemic in 2019-2020. This type of research is descriptive with a quantitative approach. The data used in this study is secondary data with a sample of 35 daily data (series) on the closing value of stock transactions on the IDX using the IDX website. The sampling technique used purposive sampling with the Independent Sample T-test analysis method. The results of this study were 1) there were differences between the movements of the JCI and JII before the Covid-19 pandemic, 2) there were differences between the movements of the JCI and JII during the Covid-19 pandemic, 3) there were differences between the movements of the JCI and JII after the new normal. Thus, there is a significant difference between the movement of the JCI and JII due to the impact of the Covid-19 pandemic.

Keywords
Stock Investment Decision
Stock Price Index
Stock Price Movements

Kata Kunci
Keputusan Investasi Saham
Indeks Harga Saham
Pergerakan Harga Saham

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1. Introduction
In today’s era, investment is no stranger to society. This is because investment is used as a container for managing finances. Investors can invest their capital in tangible assets or financial assets. In the capital market, the instrument that investors are currently interested in stocks, as seen from the value of share capitalization at the end of 2017 reaching 7,072 trillion until the end of 2019, it became 7,265 trillion from RTI data (Scholichah, 2021). Stock prices often fluctuate, especially when investors are busy selling, causing prices to drop drastically and vice versa. The causes of stock price fluctuations can be caused by company corporate actions, government regulations, fluctuations in the rupiah exchange rate in foreign currencies, macroeconomic fundamental factors, market issues, sentiment, market manipulation, and anxiety (Midesia, 2020).

This happened due to the Covid-19 pandemic, which affected not only the health of the whole world but also the world economy. All are affected, such as the Southeast Asian region and even the entire world. One of them is that in 2020, Indonesia created a multidimensional global crisis in several fields, including the economic field, due to the spread of the virus. Several countries, including Indonesia, have implemented strict restrictions (social distancing) to break the chain of the spread of the coronavirus (Kemenkeu RI, 2021). These policies have resulted in the paralysis of various fields, including activities related to the economy, as a result of panic from investors caused by both demand and supply sides. On the demand side, there are indications of weakening export and import activities, while what is happening on the supply side is weakening production (Suhardini, 2021).

Many foreign investors panicked and sold their shares, causing the capital markets abroad to drop drastically. The large number of victims whose transmission of Covid-19 was confirmed gave an adverse reaction to the stock market (Khan et al., 2020). This resulted in a decline in stock prices after the WHO declared that Covid-19 was a pandemic (Alali, 2020). The Asian market also reacted to this event and what happened in the United States and Europe. The Asian Development Bank (ADB) estimates that the global economic deficit is close to $347 billion or IDR 4,944 trillion. Then it will also impact the Indonesian economic sector, where the capital outflow of the stock market is up to IDR 980 billion (Sambuari et al., 2020). Likewise, it also significantly impacts the Indonesian capital market, which results in a change in trading time on the IDX, which becomes bad news because investors prefer to sell their shares (Saraswati, 2020).

The Composite Stock Price Index (IHSG) is the essential reference used on the IDX, which is used as a parameter that shows the combined increase and decrease in stock prices and assesses the performance of stocks on the IDX. However, in a Covid-19 pandemic like this, it seems to have decreased; this also happened to the performance of the JII Index, which was under pressure.

<table>
<thead>
<tr>
<th>Stock Trading Volume (Billion Shares)</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHSG</td>
<td>16,262,945,203</td>
<td>5,036,690,745</td>
</tr>
<tr>
<td>JII</td>
<td>3,358,429,564</td>
<td>2,067,035,489</td>
</tr>
</tbody>
</table>

The OJK statistical report trading volume occurred between 2019 and 2020 in the JCI and JII indices. The trading volume in Trading JCI was 5,036 billion shares. This figure decreased by 69.03% compared to the trading volume in 2020, which reached 16,262 billion shares. Meanwhile, the trading volume on JII in 2020 was 2,067 billion shares. This figure decreased by 38.45% compared to trading volume in 2019, reaching 3,358 billion shares.

<table>
<thead>
<tr>
<th>Growth Index</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHSG</td>
<td>6,299.54</td>
<td>5,979.07</td>
</tr>
<tr>
<td>JII</td>
<td>698.09</td>
<td>630.42</td>
</tr>
</tbody>
</table>

The OJK statistical report shows the index development that occurred in 2019-2020 between the IHSG and JII indexes. The development of the index in the 2020 JCI was 5,979.07. This figure decreased by 5.11% compared to the development of the 2020 index, which reached 6,299.54.
Whereas in the development of the JII index in 2020, it was 630.42. This figure decreased by 9.70% compared to the trading volume in 2019, reaching 698.09, which reached shares.

From the data above, it can be concluded that there was a decline in both indices due to the impact of the Covid-19 pandemic. The JII Index shows a lower index development than the JCI. However, the trading volume decreased by 38.45% compared to the JCI, reaching that of the JIsix so that the JII index could-19 pandemic.

Several previous studies have shown the differences between conventional and Islamic stock movements. From the results of research by Yusuf (2020), then research by Siska et al. (2021), Permatasari et al. 1 (2021), Al-Nisa (201,8), and Ma.ngin,daan & Manossoh (2020), as well as the results of other studies which state there are differences conducted by Sumaret al. al (2019), Novitasari (2020), Lestari & Erdiana (2021), Fajar (2020), and Lakyonk & Yansi (2019), which stated that there was no significant difference. It can be concluded from several previous studies that there were different results from one to another. Hat, in conditions like this, it is necessary to research the movement of conventional and Sharia stock iSharia due to the impact of the Covid-19 pandemic. This study aims to determine whether there are differences in the JCI and JII Indexes movement during the Covid-19 pandemic. Researchers will look at the period before the pandemic, which was the 2019-2020 pandemic.

In this case, equity price movements in the market can be influenced by various factors. Refers to Behavioral finance theory, where human behavior is usually not proactive but more reactive. Financial behavior relatively explains why individuals make decisions but have difficulty measuring what the consequences of these decisions will be (Sedalia the condition of the Covid-19 pandemic, The condition of the Covid-Covid-19mic, although not directly related to capital market activities, impacts the psychology and investment behavior of investors, ultimately affecting use the month before the pandemic, during the pandemic and the new normal that research differentiates from previously, and the new normal that research differentiates above. The researcher is intrigued by investigating which index is sufficiently robust for studying the Covid-19 pandemic, ensuring its viability amidst the outbreak. The aim is to provide reliable and accurate information that can be utilized as a reference for investment decisions post-pandemic, minimizing uncertainties and erroneous investments.

2. **Research Methods**

This study uses a reference in investment decisions after the quantitative approach; the data used is orm of secondary data, namely in the statistical reports on the official IDX website. The population used is all data series in the JCI and JII from 2019-2020, namely the closing value of stock transactions on the IDX, namely the JCI and JII, from January 2019 until after implementing the new normal era 5 June 2020. Using a purposive sampling technique, it was found to be pre-pandemic and post-pandemic data (until after the new normal), taking 35 data from each index y and monthly. For the location, this research was conducted on the composite stock price index (IHSG) and the Jakarta Islamic Index (JII) on the Indonesia Stock Exchange in 2019 and 2020, namely before the Covid-19 pandemicCovid-19er the implementation of the new normal. Then, the time for research starts from 2021 to 2022.

3. **Results and Discussion**

**Descriptive Data Analysis**

The Table 3 shows that the JCI before the Covid-19 pandemic found a maximum value of 6329.31 with a mean of 6190.5793. Meanwhile, when a pandemic occurred, the maximum value was found to be 4811.83 with a mean of 4592.5729, and after the new normal, the maximum value was 4914.39 with a mean of 5115.9397. It can be seen that the JCI during the pandemic had a smaller value of 25.81% than the mean for the pre-pandemic. After the new normal, it had a smaller value of 17.42% of the pre-pandemic, in this c, the mean JCI after the case occurred was smaller than before the Covid-19 pandemic.
### Table 3. Descriptive Data Analysis

<table>
<thead>
<tr>
<th>Statistic</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Error</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHSG Before Pandemic</td>
<td>35</td>
<td>5953.06</td>
<td>6329.31</td>
<td>6190.5783</td>
<td>16.68757</td>
<td>98.72501</td>
</tr>
<tr>
<td>JII Before Pandemic</td>
<td>35</td>
<td>4466.04</td>
<td>4811.83</td>
<td>4592.5729</td>
<td>13.44276</td>
<td>79.52844</td>
</tr>
<tr>
<td>IHSG During Pandemic</td>
<td>35</td>
<td>4014.39</td>
<td>5338.89</td>
<td>5115.9397</td>
<td>17.08671</td>
<td>101.08636</td>
</tr>
<tr>
<td>JII During Pandemic</td>
<td>35</td>
<td>660.08</td>
<td>704.70</td>
<td>687.6930</td>
<td>1.89587</td>
<td>11.21611</td>
</tr>
<tr>
<td>IHSG After New Normal</td>
<td>35</td>
<td>467.80</td>
<td>542.50</td>
<td>505.9674</td>
<td>2.64085</td>
<td>15.62351</td>
</tr>
<tr>
<td>JII after New Normal</td>
<td>35</td>
<td>532.04</td>
<td>569.19</td>
<td>555.1910</td>
<td>1.42566</td>
<td>8.43432</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In JII before the Covid-19 pandemic, a maximum value of 704.70 was found with a mean of 687.6930. Meanwhile, when a pandemic occurred, the maximum value was found to be 542.50 with a mean of 505.9674, and after the new normal, the maximum value was 569.19 with a mean of 555.1910. It can be seen that the JCI during the pandemic had a smaller value of 26.43% than the mean before the pandemic, and after the new normal, it had a smaller value of 19.27% than the pre-pandemic mean. In this case, the mean JCI after the case occurred was smaller than before the Covid-19 pandemic. So, it can be concluded that both the JCI and JII experienced a decline during the Covid-19 pandemic.

**Description of the Movement of the JCI Index and the JII Index**

The below data shows a comparison of the JCI Index with the JII Index in the period 19 November 2019 – 10 January 2020; a comparison of data was obtained during the month before the Covid-19 pandemic case in Indonesia.

**Figure 1.** Comparison of JCI and JII Time Range 19 November 2019 – 10 January 2020

Based on Figure 1, the movement of the JCI and JII in the period 19 November 2019 – 10 January 2020 shows that JII also has a higher movement than the JCI. Then, there is a picture showing a comparison of the movement of the JCI and JII in the period April 1 – May 27, 2020. A data comparison was obtained one month after the first outbreak of the Covid-19 pandemic occurred in Indonesia.

**Figure 2.** Comparison of JCI and JII Time Range 01 April – 27 May 2020
Figure 2 shows that the movement of the JCI with JII in the period April 1 – May 27, 2020, is lower than that of the JII. Next, a picture shows the JCI and JII movement within one month after implementing the new normal era, namely 01 July - 25 August 2020.

Figure 3. Comparison of JCI and JII Time Range 01 July – 25 August 2020

From Figure 3, the movement of the JCI and JII in the time range after the new normal era, namely 01 July – 25 August 2020, it can also be seen that JII is higher than the JCI.

Normality Test

Table 4. Normality Test Results

<table>
<thead>
<tr>
<th></th>
<th>Shapiro Wilk Statistic</th>
<th>df</th>
<th>Sig</th>
<th>Normal or Abnormal</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHSG Before Pandemic Covid-19</td>
<td>.949</td>
<td>35</td>
<td>.109</td>
<td>Normal</td>
</tr>
<tr>
<td>JII Before Pandemic Covid-19</td>
<td>.946</td>
<td>35</td>
<td>.088</td>
<td>Normal</td>
</tr>
<tr>
<td>IHSG During Happened the Pandemic Covid-19</td>
<td>.942</td>
<td>35</td>
<td>.063</td>
<td>Normal</td>
</tr>
<tr>
<td>JII During Happened the Pandemic Covid-19</td>
<td>.975</td>
<td>35</td>
<td>.601</td>
<td>Normal</td>
</tr>
<tr>
<td>IHSG After New Normal</td>
<td>.976</td>
<td>35</td>
<td>.643</td>
<td>Normal</td>
</tr>
<tr>
<td>JII after New Normal</td>
<td>.964</td>
<td>35</td>
<td>.294</td>
<td>Normal</td>
</tr>
</tbody>
</table>

The table explains that the normality test results using Shapiro Wilk show a sig. > 0.05, which means that all data is normally distributed. So that researchers can continue testing the hypothesis using the Independent Sample T-test.

Hypothesis Test

Comparison of JCI and JII Before the Covid-19 Pandemic

Table 5. Comparison of JCI and JII Before the Covid-19 Pandemic

<table>
<thead>
<tr>
<th></th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig</td>
</tr>
<tr>
<td></td>
<td>Equal variances assumed</td>
<td>58.241</td>
</tr>
<tr>
<td></td>
<td>Equal variances are not assumed</td>
<td>327.652</td>
</tr>
</tbody>
</table>

From the results of testing the hypothesis above, the comparison between the JCI and JII before the Covid-19 pandemic used an independent sample t-test. Table 1.4 provides evidence of significant
differences between the JCI and JII movements. This was found in the significance value of the t-test for Equality of mean of 0.000 < 0.05, while the value of count with \( t = 2 = 1.995 \). Thus, the results of the count table are 327.657 > 1.995 and a significance of 0.000 < 0.05; it can be concluded that before the Covid-19 pandemic, there was a significant difference between the JCI Index and the JII Index, there was a significant difference.

**Comparison of JCI and JII During the Covid-19 Pandemic**

### Table 6. Comparison of JCI and JII During the Covid-19 Pandemic

<table>
<thead>
<tr>
<th>Independent Samples Test</th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>The Movements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IHSG Index and JII Index</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The test results of the hypothesis that the comparison between the JCI and JII when the Covid-19 pandemic occurred used an independent sample t-test. Table 1.5 provides evidence of significant differences between the JCI and JII movements. This was found in the significance value of the t-test for Equality of mean of 0.000 < 0.05, while the value of count with \( t = 2 = 1.995 \). Thus, the results of the count table are 298.299 > 1.995 and a significance of 0.000 < 0.05; it can be concluded that before the Covid-19 pandemic showed that there was a significant difference in the movement of the JCI Index and JII Index.

**Comparison of JCI and JII after New Normal**

### Table 7. Comparison of JCI and JII After the New Normal

<table>
<thead>
<tr>
<th>Independent Samples Test</th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>The Movements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IHSG Index and JII Index</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The testing results, the hypothesis that the comparison between the JCI and JII after the new normally uses the independent sample t-test. Table 1.6 provides evidence of significant differences between the JCI and JII movements. This was found in the significance value of the t-test for Equality of mean of 0.000 < 0.05, while the value of count with \( t = 2 = 1.995 \). Thus, the results of the count table are 265.994 > 1.995 and a significance of 0.000 < 0.05; it can be concluded that before the Covid-19 pandemic showed that there was a significant difference in the movement of the JCI Index and JII Index.

This study’s results prove differences in the comparison of movements between the JCI index and the JII index due to the impact of the Covid-19 pandemic. Table 4.3 shows the mean values for the JCI and JII before the pandemic, namely 6329.31 and 660.08, while during the pandemic, they decreased to 4466.04 and 467.80. However, on the JII index, the JII index’s index is compared to the JCI. This is due to the imposition of strict restrictions (social distancing) in policy, which resulted in
the paralysis of various fields. What happened in the capital was a decrease in share prices after it was declared by WHO that the CoWHO declared pandemic (Alali, 2020).

Covid-19 shows that investors react to the stock market not only based on the financial statements issued by the company but also use other information that impacts the company's condition. The Covid-19 pandemic as a whole has had a devastating impact on most companies. Many companies have experienced a decline in profits and even experienced losses during the pandemic. Conditions like this are undoubtedly wrong undoubtedly investors because the company's condition becomes uncertain and unstable. This condition will be responded to negatively by investors, so in the end, the company's share price (Wicaksono & Adyaksana, 2020).

This study was successful in proving that there were differences in the comparison of movements between the JCI index and the JII index due to the impact of Covid-19, as shown in the Independent Sample T-test from the comparison of JCI and JII before the pandemic in the table. Four that Table significance value of the t-test for equality of mean is 0.000 <0.05, which shows a significant difference, which in the graph found in Figure 1.1, states that JII has a high movement compared to the JCI with a movement pattern that shows a positive trend or an increase between the JCI and JII in the pre-pandemic period.

In the Independent sample T-test from the comparison of JCI and JII during a pandemic in Table 1.5, the significance value of the t-test for equality of mean is 0.000 <0.05, which indicates a significant difference, which is in the graph found in Figure 1.2 stated that JII has a high movement than JCI. However, during the pandemic, both JCI and JII experienced a decline. The chart shows a fluctuating movement pattern compared to pre-pandemic conditions, which tended to be stagnant. The Covid-19 pandemic has affected everyone, affecting not only the health of the whole world but also the economy's adverse reaction (Khan et al., 2020). An adverse of investors panicked and sold their shares, causing a drastic decline.

They were then testing the Independent Sample T-test from the comparison of the JCI and JII after the implementation of the new Table in Table 1.6 that the significance value of the t-test for equality of mean is 0.000 <0.05, which shows a significant difference which is in the graph found in the figure 1.3 states that JII has a high movement compared to JCI implementing ion of the new normal, the JCI and JII movement patterns have in, but on the other hand, er hand the values are still low compared to before the pandemic. In general, the influence of internal and external factors influences changes in stock price movements. This was caused by the emergence of new news from an announcement that reacted to the market, such as the amid the Behavioral Fina, the Behavioral Finance Covid-19, that psychology can influence financial behavior (Sedalia The condition of the Covid-Covid-19, although not directly related to capital market activities, impacts investors' psychology and investment behavior, ultimately affecting stock prices (He et al., 2020).

The results of this study confirm the research conducted (2021), which stated that the share prices of Islamic banks had significant differences before and after the pandemic outbreak. A similar study was found in research by Permatasari et al. (2021), showing that et al. (2021), retail and hotel, restaurants, and companies had significant differences before and during the Covid-19 pandemic. While there is a difference in trading volume between the two companies, retail companies do not have a significant effect on trad-significantly affected Covid-1 thematic on the JCI and JII indices in this study is also in line with the research of Mangindaa & Manossoh (2020) who concluded that differences were found in the comparison of PT Garuda Indonesia Tbk shares before and after the pandemic. Then, the results of the research by Yusuf (2020) and the results of Yusuf's (2020) research on the pandemic will be presented.

However, this study contrasts Indiana's research, which concluded that there is no significant difference in the average return between Islamic and conventional stocks. Apart from research by Novitasari (2020), there was no difference in the comparison of the ISSI and the JCI before and during the pandemic in Indonesia. Lakoni's research found no significant differences between JII, LQ45, and the JCI before and after the 2019 simultaneous general elections. Further research by Fajar (2020) stated that there were no significant differences in sharia and cobetweenentional stocks. The average Islamic stock is measured by the Sharpe ratio, Jansen, and Treynor ratios rather than conventional stocks; the ratio of Islamic stocks is lower than that of conventional stocks.

JCI (Join Stock Price Index) and JII (Jakarta Islamic Index) are indicators used to measure the performance of stocks. In this case, it is used to show the movement of whether the stock price has
increased or decreased in general stock prices listed on the stock exchange (Pasaribu et al., 2014). Supported by the data above, it can be concluded that the impact of the pandemic has caused a decline in both indices. It can be seen from the observation period that there were changes in the movement of the JCI index before and during the Covid-19 pandemic, which experienced significant increases and decreases. Vice versa, from the movement of the JII index from the observation period, there were changes both before and during the Covid-19 pandemic, and there were increases and decreases. However, during the observation period of the movement of these two indices, it was stated that the JII index had a higher movement than the JCI index. Then, the decline in the JII index was not too sharp, and there was a relatively stable movement. Thus, the JII index can be used as an investor's choice to invest in stocks amid the Covid-19 pandemic outbreak. This research is in line with the research of Al-Nisa (2018), which states that the average return value of JII is much better than the JCI, where both in the long term and short term, the Islamic capital market has good market potential and is experiencing growth. Then, research by et al. (2019) states that in the Alpha Jensen and Sharpe methods obtained, LQ45 was higher than JII in 2014-2015, but in Treynor, it was found that JII had a high value. So, in this, investing in JII is more profitable than in LQ45 because in the calculation of Alpha Jensen, even though LQ45 is higher, it is less profitable due to the risks that arise being higher than the returns obtained compared to the average market return.

4. Conclusion

Based on the results of the research and discussion conducted by the researchers regarding the Comparative analysis of Stock Index Movements Due to the Impact of the Covid-19 Pandemic on the JII and JCI Indexes for 2019-2020, there is a significant difference in the comparison between JCI and JII movements before the Covid-19 pandemic stating that the JII also has a high movement compared to JCI with a movement pattern that shows an increase between JCI and JII in the period before the pandemic. However, the resulting increase in value is lower. This is due to the data tested from November 19, 2019 - January 10, 2020, which is close to the month of the announcement of the Covid-19 pandemic in Indonesia on March 02, 2020.

The comparison of JCI and JII during the pandemic, which shows a significant difference, states that the JII has a higher movement than the JCI. However, during the pandemic, both JCI and JII experienced a decline; this shows a fluctuating movement pattern compared to the pre-pandemic situation, which tends to be stagnant. The Covid-19 pandemic has affected the world's health and the economy.

The comparison of JCI and JII after implementing the new normal shows a significant difference, which states that the JII has a higher movement than JCI. After implementing the new normal, the movement pattern of JCI and JII has increased, but on the other hand, the value is still low compared to 2019. In general, internal and external factors influence changes in stock price movements. However, apparently, not only that, but there are sentiments that cause investors to panic. This is caused by the emergence of new news from announcements that react to the market, such as amid the Covid-19 pandemic.

Based on the comprehensive research results in this study, the researcher realizes that this study has several limitations, among others: 1) The sample of this study is limited to only two stock indices, namely JCI and JII; 2) The research sample only uses daily data (series) for two years, specifically 2019 and 2020, 3) This study compares the movement of 2 stock indices before and during the Covid-19 pandemic only.

Based on the results of the research that has been conducted, the researcher is giving suggestions, such as: 1) Investors can be used as a reference in making stock investment decisions amid the Covid-19 pandemic and to analyze not only internal factors and external factors but also pay attention to the emergence of new news that can affect changes in stock movements. 2) Further researchers are expected to use data after the Covid-19 pandemic and add more years of research or daily data (series); this aims to be more accurate in comparing stock indices. In addition, the number of stock indices used in research will be increased to analyze how they compare.

References


