Capturing the Performance of the Indonesian Sharia Stock Index (ISSI) and Composite Share Price Index (IHSG) Jakarta During Bullish and Bearish Period 2016-2019

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**ABSTRACT**

This study aims to compare the performance of Indonesia Sharia Stock Index (ISSI) and Composite Share Price Index (IHSG) Jakarta over bullish and bearish period 2016-2019. This research is descriptive quantitative using natural log and standard deviation calculation. The data retrieved from Financial Service Authority. The finding show that indexes whose volatility values are high does not always generate high positive returns. In addition, the performance of the two indices showed the same pattern in both bullish and bearish periods despite the differences in some conditions and systems.

**Keywords:** Stock Index; Share Price; Stability; Volatility; Market Return

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INTRODUCTION

The capital market has a very important role in the current global economy (Chen, & Siems, 2004; Cheung, Fung, & Tsai, 2010; Ahmad & Radzi, 2011). As an investment instrument in Indonesia where the financial market is developing, the capital market has become an important part of the country's economy (Kim, & Song, 2017; Santiago, 2017; Rethel, 2018a; Rethel, 2018b). Both as a place to raise funds, an alternative place of investment through the sale of shares and bond issuance, as well as an indicator of stability in macroeconomic conditions (Flaherty, et. al., 2017; Odo, et. al., 2017; Gebauer, et. al., 2018; Chipeta, 2020).

In the last four years, the Indonesian capital market saw 39.2% growth from 4525.92 in early 2016 to 6299.54 at the end of 2019. The growth was a significant figure, compared to the growth of other countries’ capital markets in one region. This high growth will ultimately affect other indices whose stock components are in the composite index (Cheng, et. al., 2020; Petry, et. al., 2019; Charfeddine, et. al., 2019; Gygli, et. al., 2019; Yeon, et. al., 2020; Acharya, et. al., 2020).

The emergence of sharia products was initiated to accommodate the needs of Muslims who want to invest with sharia principles (Laldin & Furqani, 2016; Todorof, 2018; Yumna, 2019; Shahabuddin, et. al., 2020; Nasir, et. al., 2020). Sharia investment products in the capital market continued to develop with the presence of sharia bond instruments (sukuk), sharia mutual funds, and Sharia Securities List (DES) which are then transformed into the Indonesian Sharia Stock Index (ISSI). It is suprising that the number of sharia shares listed on the exchange continues to experience a significant increase, especially with the 2015-2019 PMS Roadshow programme, as shown in the following figure.

Table 1. The Growth of Capital Markets in the Area

<table>
<thead>
<tr>
<th>Countries</th>
<th>Indeces</th>
<th>2016</th>
<th>2019</th>
<th>Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>IHSG</td>
<td>4525.92</td>
<td>6299.54</td>
<td>39.19%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>KLSI</td>
<td>1615.67</td>
<td>1653.37</td>
<td>2.33%</td>
</tr>
<tr>
<td>Singapura</td>
<td>STI</td>
<td>2835.97</td>
<td>3222.44</td>
<td>13.63%</td>
</tr>
<tr>
<td>Thailand</td>
<td>SET</td>
<td>1263.41</td>
<td>1579.84</td>
<td>25.05%</td>
</tr>
<tr>
<td>Filipina</td>
<td>PSE</td>
<td>6833.42</td>
<td>7815.26</td>
<td>14.37%</td>
</tr>
<tr>
<td>Jepang</td>
<td>NIKKEI225</td>
<td>18450.98</td>
<td>23656.62</td>
<td>28.21%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>HSI</td>
<td>21327.12</td>
<td>28319.39</td>
<td>32.79%</td>
</tr>
</tbody>
</table>

The significant development of Islamic stocks is an indicator that Muslim and non-Muslim investors are starting to glance at Islamic-based stocks (Al Amine, 2016; Sherif, 2016; Ahmed, 2019; Al Baloooshi, 2020; Duasa, et. al., 2020). Islamic stocks also have good resilience when the economy is experiencing a crisis (Ahmad & Albaity, 2008; Majid, 2018; Cheong, 2020; Pratama & Rizal, 2019; Hassan, et. al., 2020; Erragragui, et. al., 2018; Bahemia, 2019; N. Chang, et. al., 2020), because the Islamic capital
market has a better ability to adapt to external crisis disruptions. As a matter of fact, it was proven in the 2008 during Subprime Mortgage Crisis.

Besides the significant increase, the Sharia capital market is considered to be more stable so that investors can feel more secure and comfortable to invest their money in the products offered (Abu-Alkheil, et. al., 2017; Piliyanti, 2019; Goel, et. al., 2019; Hati, et. al., 2020).

Several research was conducted related to this topics. Hakim & Rashidian (2000), examined the risks and returns of the Shariah stock market index in the United States. It was found that the Shariah stock index is still influenced by market independent factors (interest rates). Dharani & Natarajan (2011) found that there was no difference between the Nifty Sharia daily return Index and Nifty Index. Significant differences only occur in July and September. On the other hand, Chiadmi & Ghaiti (2012) found that the daily return of the Sharia index was asymmetrical and leptokurtic, unlike the Gaussian distribution. They also found a heteroscedasticity effect on both indexes.

Charles & Darne, 2006; Acharya, et. al., (2009), found that the stock price index was strongly influenced by many variables including global and domestic economic and financial conditions, politics, investment atmosphere, security and the performance of the company concerned. While Beik & Wardhana (2011) found that that a stable index has a lower level of volatility that can be measured by the standard deviation (SD) value of each index. The finding show that JII has a smaller SD so that it is more stable when it gets shaken than that of the Dow Jones Index, KLCl and IHSG.

Kasi, U., & Muhammad, J. (2016), found that the Shariah screening methodologies implied in the United States is far more stringent than those implied in the selected Asian countries. Kumar & Sahu (2017), found the presence of a long run equilibrium relation between macroeconomic indicators and Dow Jones Islamic India market index. On the other hand, Lusyana & Sherif (2017) found that the inclusion of the ISSI has a positive impact on the financial performance of the included shares during the 41-day event window. Furthermore, El Ouadghiri & Peillex (2018), found that US public attention to Islamic terrorism negatively affects US Islamic indices, suggesting that investors may make amalgams between terrorism and Islamic finance.

While, Cheong, C. W. (2020) in his study on the effects of Shariah-compliance on non-financial firm operations on a global scale, found that resource restraints may be beneficial for a firm, and also provide significant value to firms looking to capitalize on the 1.8 billion-strong Muslim market with further insight on the intricacies of Shariah-compliance. Hassan, et. al., (2020) found that Islamic stock indices are less volatile than conventional stock indices. Anwer, et, al,. (2020) found that better governance, lower asset growth and lower equity or assets increase the propensity of SC firms to make higher repurchases. Robiyanto, (2018) found that gold can serve as a safe haven asset for sharia stocks in Indonesia at het extreme shocks occur in the Indonesian stock market. Sherif, M. (2020) found a strong and statistically significant relationship between the COVID-19 pandemic and the performance of the conventional stock market index.
However, those research is limited to a particular condition on Islamic stock indices and conventional stock indices in some country and religion, while this study compares the stability and performance of Indonesia Sharia Stock Index (ISSI) and Jakarta Composite Index (IHSG) over bullish dan bearish period between 2016-2019 in Indonesia. Bullish and bearish market conditions can be seen by classifying when the market return is higher or lower than the median (middle value) of the market return during the observed period (Fabozzi & Francis, 2001). The bullish and bearish periods can be classified as daily, weekly and monthly. The total daily bullish and bearish period was 485 days, the weekly was 103 weeks and the monthly was 23 months. Weekly return data is based on five trading days in a week. Monthly return data is based on 20 active trading days in a month. The purpose of this is to determine the stability and performance of Indonesia Sharia Stock Index (ISSI) and Composite Share Price Index (IHSG) Jakarta over bullish dan bearish period between 2016-2019 in Indonesia.

RESEARCH METHOD

This research is descriptive quantitative and using natural log and standard deviation calculation. The data used is secondary data with data collection techniques retrieved from Financial Service Authority. The level of stability was indicated by the annualized volatility value, while the performance indicated by the return value. It is known that the level of volatility for both equally under 30%, which indicates a safe market for investment.

This research used IHSG and ISSI as market proxies in calculating market returns. The calculation results was certainly differ from one another because the composition of the shares in it is also different. Composite Share Price Index (IHSG) Jakarta consists of all shares listed on the IDX while the ISSI component consists of all listed shares included on DES. The difference in the return value between the two indices and an analysis of the possibilities of what causes it, are expected to answer the problem of this research.

The initial stage in this research was to calculate the return of each ISSI and IHSG index. Return calculation can be done using logarithmic or arithmetic formulas. The results of the calculation of returns between the two methods have differences in value that was not too large. The difference between the results of the calculation of the average return of the two indices obtained by the calculation of the two methods was 0.00003394239 for ISSI and 0.00003237756 for the IHSG.
Figure 1. The Daily Return of ISSI and IHSG

The average ISSI return value with the logarithmic formula is 0.000271768, while the average arithmetic formula is 0.000305711. For IHSG, the average return value with the logarithmic formula is 0.000333619, while the average arithmetic formula is 0.000365996.

Table 2. The Return Calculation Results

<table>
<thead>
<tr>
<th>Index</th>
<th>Average (Logarithmic)</th>
<th>Average (Arithmetic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISSI</td>
<td>0.000271768</td>
<td>0.000305711</td>
</tr>
<tr>
<td>IHSG</td>
<td>0.000333619</td>
<td>0.000365996</td>
</tr>
</tbody>
</table>

The calculation of returns by logarithmic had a smaller value compared to arithmetic. This study used returns from the results of arithmetic calculations as a tool to calculate the stability of ISSI and IHSG, because the opinion of Hudson (2010) which states that the arithmetic method was more suitable than logarithmic to calculate the index return.

The data analysis technique used in this study was qualitative data analysis following three phases namely: data reduction, data display, and drawing a conclusion (Miles & Huberman, 1992).

RESULT AND DISCUSSION

The result indicates that during the observed period, the annualized volatility of the ISSI return was higher than the IHSG return. The Table 3, show that the number of bullish periods is equal to the number of bearish periods.

Table 3. The Bullish and Bearish Period

<table>
<thead>
<tr>
<th>Category</th>
<th>ISSI</th>
<th>IHSG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>0.000481799</td>
<td>0.000747626</td>
</tr>
<tr>
<td>Sum of Return (Bull)</td>
<td>3.168674557</td>
<td>3.071202072</td>
</tr>
<tr>
<td>Sum of Return (Bear)</td>
<td>-2.872311429</td>
<td>-2.716567196</td>
</tr>
<tr>
<td>Jumlah Periode Bullish</td>
<td>485</td>
<td>485</td>
</tr>
<tr>
<td>Jumlah Periode Bearish</td>
<td>485</td>
<td>485</td>
</tr>
<tr>
<td>Weekly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Returns on the weekly and monthly categories have the same pattern, namely the ISSI positive return is not greater than the IHSG positive return and the ISSI negative return (risk) is greater than the IHSG negative return (risk). In contrast to the daily category where the ISSI positive return is greater than the positive IHSG return when the market is in bullish and the negative return (risk) ISSI exceeds the negative return (risk) IHSG when the market is in bearish.

After the bullish and bearish periods for ISSI and IHSG was identified, a length of selected period will be single out whereby the return of one index has a consistent trend. Then the return of that index will be compared to the other index returns. Based on the results of data processing, three patterns of market movement whose events and issues that are suspected to contribute to the fluctuation of the return of the two indices will be discussed. It could be from the political situation, domestic and foreign economies, government and company policies, and others. Three groups of market movement to be analyzed are as shown in the following table 4 below:

<table>
<thead>
<tr>
<th>Series</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>242-359</td>
<td>December 27, 2016 – June 22, 2017</td>
</tr>
<tr>
<td>423-500</td>
<td>October 3, 2017 – January 24, 2018</td>
</tr>
<tr>
<td>763-819</td>
<td>February 27, 2019 – May 23, 2019</td>
</tr>
</tbody>
</table>

The comparison of ISSI and IHSG returns in the first group from December 27, 2016 to June 22, 2017. 118 active trading days in that time period are divided into six months. IHSG returns experienced bullish trend throughout the observed month while ISSI returns experienced five bullish months and one bearish month.

In general, economic conditions in 2017 recorded fairly good growth compared to the previous year, given the global economic recovery which has strengthened especially in the first and second quarter in a row. The economic recovery trend was also accompanied by an increase in world trade, an increase in commodity prices, business activity and global inflation (Bank Indonesia Report, 2018). All this is reflected in the growth of the Indonesian capital market from the level of 5275 at the beginning of the year to the level of 6355 at the end of the year, or growing by around 17%. 
It can be seen in Figure 2 that the ISSI and IHSG curve lines are both experiencing an upward trend. The number of ISSI returns during the six months of observation was 0.006816937, while the IHSG return was 0.00804766. Both indexes recorded positive returns in the first to fourth month. In the fifth month, ISSI’s return and IHSG’s return both declined. However, the ISSI graph shows a negative number, while the IHSG still shows a positive number. This can happen because screening process causes shares in ISSI to be no more diversified than shares in the IHSG, thereby limiting the potential for positive returns and negative returns at these times. Then in the sixth month ISSI and IHSG both recorded positive returns, even though the ISSI return was relatively smaller than the IHSG return. Thus it can be seen overall that the IHSG return is higher than the ISSI return.

Data analysis in the field shows that among the factors that might cause ISSI to record negative returns in the fifth month are inflation, a decrease in the four ISSI constituent indices and Net Purchase by Foreigners. Inflation can cause investors to sell shares and cause the index to fall. The Central Statistics Agency (BPS) released inflation data for May 2017 at 0.39 percent, far higher than the inflation in April 2017 which was only 0.09 percent (Bank Indonesia Report & BPS, 2017).

In addition, four ISSI constituent indices such as mining, various industries, property, and infrastructure that showed negative growth could also impact ISSI’s performance for the month. The four indexes fell by 131.8 points, 28.2 points, 13.5 points and 7.59 points respectively (Indonesia Stock Exchange (IDX), 2017). In May, the Net Purchase by Foreigners factor was also suspected to cause ISSI to drop to its lowest point in that month. It can be seen in Figure 3 that Net Purchase by Foreigners recorded a significant negative number for the month, which was close to minus 7000 Billion.
The second analysis in this sub-chapter is the comparison of ISSI and IHSG returns in the second group of month from October 3, 2017 to January 24, 2018. 78 active trading days in that time period are divided into four months. IHSG returns experienced bullish trend throughout the observed months while ISSI returns experienced three bullish months and one bearish month.

The total ISSI return for four months of observation was 0.0036694, while the IHSG return was 0.00629435. In the second month, between October 27, 2017 - November 23, 2017, ISSI and IHSG returns declined. It's just that the ISSI return had recorded a negative number of -0.0006314, while the IHSG return was able to record a positive number of 0.00056668. This pattern occurs exactly like what happened in the fifth month in Figure 4.

Data analysis in the field shows that among the factors that might cause the performance of ISSI and JCI to fall in the second month are market anticipation of the Fed's policy of raising interest rates in December 2017 and market responses to rebalancing the composition of the MSCI Indonesia Index. The indicators are the decline of 8 ISSI and IHSG constituent index compared to October 2018, and Net Purchase by Foreigners which recorded a negative number.

The third analysis in this sub-chapter is the comparison of ISSI and IHSG returns in the third group of month from February 27, 2019 to May 23, 2019. 57 active trading days in that time period are divided into three months. ISSI and IHSG returns
experienced bearish situation throughout the months with a total return of -0.0044106 for ISSI and -0.0034421 for IHSG. Thus it can be seen that the ISSI negative return is greater than the JCI negative return.

By and large, capital market growth throughout 2019 can be considered to be stagnant due to slow growth of global economic that year. As a result, the Indonesian capital market only recorded a slight increase, from the level of 6181 at the beginning of the year to a level of 6299 at the end of the year. The triggers for the weakening of global economic growth include a trade war between the United States and China that has not subsided. This has had an impact on a very slow economic recovery, such as a halt in sales of four-wheeled vehicles and cement for construction.

Based on the results, it has shown that during the observed period the annualized volatility of the ISSI return was higher than the IHSG return. According to Cohen (2009); Beik & Wardhana (2011), this shows that ISSI is not more stable and has a greater risk profile and potential return compared to IHSG. According to Cohen (2009), the value of annualized volatility can be known from the multiplication of the standard deviation of the index with the root of the number of trading days in one year, or during the observation period.

This result was contrast from Beik (2011) which found that the Sharia stock index was more stable compared to other indices, which caused by differences in the types of data used in the two studies. Romli, et. al., (2011); Hassan & Antoniou (2004), also prove that the Sharia index was more volatile than the conventional index. The high volatility in the Shariah stock index occurs because screening eliminates many companies from the entire population. As a result, companies that qualify will tend to be smaller in number and have volatile returns (Hassan, et. al., 2005). The return of each volatile issuer cumulatively will contribute to the volatility of the Shariah stock index so that the Shariah stock index is no more stable than the IHSG. Although the opportunity for diversification of the Sharia index is more limited compared to conventional indices, it does not mean the Shariah index is not attractive in terms of return. However, based on the annualized volatility value, both indexes are included in the index category which is quite stable because both have annualized volatility values below 30% (Sarwar 2011).

CONCLUSION

Results from this study indicates that ISSI performance was no better than the IHSG's performance. This is base on the results of the return from the two indices in the three months observed in the time of bearish and bullish conditions. In a bearish condition, ISSI recorded a smaller positive return than of the IHSG. Even in certain cases, ISSI recorded a negative return in bearish conditions. In a positive bullish return condition, IHSG recorded positive greater return than of the ISSI.

However, future research may add wider population and sample of the study to find the more ideal model of the research and more valid result.
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