

Sharia Stocks in Times of Crisis: A Study on the Influence of Macroeconomic Factors during the Covid-19 Pandemic

Fifi Afiyanti Triuspitorini^{1*}, Setiawan¹, Rani Putri Kusuma Dewi²

¹Department of Accounting, Politeknik Negeri Bandung, Bandung, Indonesia

²Master of Islamic Economics Study Program, UIN Sunan Gunung Djati Bandung, Bandung, Indonesia

Research article

Received 10 March 2023; Accepted 15 July 2023

How to cite: Triuspitorini, FA., Setiawan, & Dewi, RPK. (2023). Sharia Stocks in Times of Crisis: A Study on the Influence of Macroeconomic Factors during the Covid-19 Pandemic. *Indonesian Journal of Economics and Management*, 3(3), 717-724.

*Corresponding author: fifi.afiyanti@polban.ac.id

Abstract: Indonesia offers various sharia-compliant stock options, with the Indonesian Sharia Stock Index (ISSI) being one such alternative. While ISSI instills confidence in investors by aligning with sharia principles, it does not automatically shield itself from macroeconomic challenges. Therefore, it remains crucial to consider macroeconomic factors when investing in Islamic stocks, especially amid the uncertainties of the Covid-19 pandemic. This study aims to explore the impact of macroeconomic factors on Islamic stock prices during the pandemic, employing a quantitative approach with secondary data. The variables encompass ISSI price (dependent), along with inflation, interest rates, and exchange rates (independent). The research involves descriptive statistics and Structural Equation Modeling (SEM) for inferential analysis, facilitated by the WarpPLS application. The findings reveal that, amid the Covid-19 pandemic, only the interest rates variable significantly and negatively influences ISSI.

Keywords: Indonesian Sharia Stock Index (ISSI); macroeconomic factors; Covid-19 pandemic

1. Introduction

The World Health Organization (WHO) has categorized Covid-19 or Coronavirus as a global pandemic shortly after its emergence (World Health Organization, 2020). The virus was initially discovered in the city of Wuhan, China, in December 2019, and it has since spread to 210 countries and territories worldwide, with reported cases reaching 114,365,592 and casualties totaling 2,356,703 as of February 28, 2021 (Worldometer, 2021). The widespread outbreak of Covid-19 has had a significant impact on the employment landscape, as many companies have halted their operations, leading to a substantial increase in unemployment. This, in turn, has disrupted public transactions, posing a threat to the national economy. One such sector affected is the capital market, which plays a crucial role in the global economic framework.

A study conducted by Pitaloka et al. (2020) in Indonesia revealed that the Covid-19 pandemic has had adverse effects on the capital market. The occurrence of this pandemic has influenced the behavior of many investors, significantly impacting the Jakarta Composite Index (IHSG) (Pitaloka et al., 2020). Furthermore, the dynamics of the stock market have also been influenced by the presence of this pandemic (He et al., 2020; Junaedi & Salistia, 2020; Liu et al., 2020). Other research indicates a decline in global stock market conditions (Collins, 2020).

Some even suggest that there has been an increasing inefficiency in the stock market (Lalwani & Meshram, 2020).

In the Indonesian capital market, the Covid-19 pandemic has resulted in a shift in trading hours on the Indonesia Stock Exchange, sending negative signals for investors to retain their stock holdings (Kusnandar & Bintari, 2020). Consequently, many investors prefer to sell their shares. This is inevitable as this situation leads to negative abnormal returns (Liu et al., 2020). Investors are reluctant to face larger losses in the future by holding onto their stocks, prompting them to collectively sell their shares to avoid more significant losses down the road.

However, the situation is the opposite in the Islamic capital market in Indonesia. The pandemic has not caused a decline in investor interest in Shariah capital markets; in fact, there has been an increase in the number of investors, reaching up to 20 percent as of August 2020 year on year (yoy) (Okezone, 2020). This information is supported by a quote in the *Republika* newspaper from Bambang Prijambodo, the Deputy for Economic Affairs at the Ministry of National Development Planning/Bappenas, stating that "indeed, the impact of Covid-19 is felt across all capital market instruments, but it turns out that Islamic instruments are more resilient in facing the pandemic" (Republika, 2020). This serves as a positive force for the domestic capital market amid the economic downturn during the Covid-19 pandemic.

The economic conditions reflected in macroeconomic factors are key drivers capable of influencing stock price fluctuations in both Sharia and non-Sharia capital markets. Amid the Covid-19 pandemic, macroeconomic factors remain vulnerable and even contribute to increased uncertainty. Some of the macroeconomic factors suspected to affect stock prices include inflation (Setyani, 2017), the BI rate or BI-7 Day Reverse Repo Rate (BI7DRR) (Mamahit et al., 2019; Tripuspitorini, 2021; Tripuspitorini & Setiawan, 2020), and exchange rates (Rizkiansyah & Sudaryanto, 2020; Setyani, 2017).

2. Literature Review

2.1. Sharia Stock Price Index

The Indonesian Stock Exchange has more than 40 stock indexes as an innovation in developing and providing stock indices that can be used by all capital market players (IDX, 2023). One of the leading indexes is the Indonesia Sharia Stock Index (ISSI). ISSI is a stock index that represents all sharia shares in Indonesia, so it can be used as a benchmark to see economic developments in the sharia capital market. Through ISSI, it is explained that the capital market also provides investors with the opportunity to invest their funds in companies that comply with sharia principles (Tripuspitorini, 2021).

When it was launched on May 12, 2011, the number of sharia shares included in the ISSI list on the IDX was 220 shares. This number then increased until now to 331 shares and was determined to be valid for the period December 2016 to May 2017 through BEI announcement no: 00909/BEI.OPP/11-2016. In the last period of index calculation, there were 33 new shares entered and 13 shares exited. The ISSI is used as a complement to the previously existing sharia index, namely the Jakarta Islamic Index (JII).

2.2. Hypothesis Development

2.2.1. Inflation and Sharia Stock Price Index

One of the macroeconomic factors that influences the development of the sharia stock index is inflation. Inflation is a condition where the general and continuous increase in prices of goods occurs widely (Mishkin, 2008). The inflation rate in Indonesia often fluctuates and causes general price instability (Tripuspitorini & Setiawan, 2020). This affects shares in the capital

market. An increase in prices will reduce demand for shares because people's real income decreases. When inflation increases, the company's production costs increase, thereby reducing the value of the company's gross, operational and net profits. With decreasing company profits, this results in a decrease in dividends for investors in the capital market. The fluctuating inflation rate will affect the level of investment in the capital market, including the Indonesian Sharia Stock Index (Setyani, 2017). Thus, the following hypothesis can be put forward:

H1: Inflation has a significant effect on the stock price index during the Covid 19 pandemic.

2.2.2. Interest Rate and Sharia Stock Price Index

Another macroeconomic factor that influences the stock development index is interest rates. This statement is supported by Mishkin's (2008) portfolio theory which states that demand for securities is influenced by interest rates, wealth, inflation rates and exchange rates. Bank Indonesia (BI) has a policy for determining the BI-Rate. BI-Rate has an influence on stock index prices on the capital market. In general, investors expect BI to increase interest rates. However, in the long term this will be detrimental to investors. An increase in interest rates will cause an increase in the rate of return on other investments with lower risk, compared to stock investments with high risk. That way, those interested in investing in shares will move and reduce the number of shareholders, including sharia shares. Tripuspitorini's research (2021) found that, in both the short and long term, interest rates have a significant effect on the sharia stock price index in Indonesia. Thus, the following hypothesis can be put forward:

H2: Interest rates have a significant effect on the stock price index during the Covid 19 pandemic.

2.2.3. Exchange Rate and Sharia Stock Price Index

Another factor that influences the development of stock indices is the exchange rate or exchange rate. According to Tripuspitorini & Setiawan (2020), the exchange rate is the price of money expressed against other currencies, which can be expressed as the amount of local currency needed to buy foreign currency or vice versa. The US dollar influences the Indonesian currency exchange rate because the US dollar is the main currency in almost all countries (Tripuspitorini, 2021). The exchange rate will affect the trade sector related to exports and imports. The Indonesian capital market cannot be separated from companies that carry out trading transactions using the IDR/USD exchange rate so that changes in the IDR/USD exchange rate are expected to influence the movement of the stock index. Thus, the following hypothesis can be put forward:

H3: The exchange rate has a significant effect on the stock price index during the Covid 19 pandemic.

3. Research Methods

A quantitative approach was used in this research to be able to test hypotheses. The research data is in the form of secondary data consisting of the price of the Sharia Stock Index (ISSI) as the dependent variable, then inflation, the IDR/USD exchange rate, and the BI - Rate or which has now been changed to the BI-7 Day Reverse Repo Rate (BI7DRR) as the variable free. The range of data use during the Covid-19 pandemic is from March 2020 to June 2021 according to data availability or saturated samples.

Meanwhile, to analyze the data, the following tests are carried out: i) Descriptive Statistics, which aims to provide an overview or description of data seen from the average (mean), smallest (minimum) and largest (maximum) values as well as standard deviation

(standard deviation). ; then ii) regression analysis using the Structural Equation Modeling (SEM) approach, aimed at proving whether macroeconomic variables influence sharia stock prices, both before the pandemic and during the pandemic. Testing and analysis will be assisted using the WarpPLS application.

4. Results and Discussion

4.1. Descriptive Statistics

The first analysis carried out was descriptive statistics to describe the condition of the data obtained by looking at the average value, smallest value, largest value, and standard deviation. Below are presented in table 2 the results of descriptive statistical testing.

Table 1. Descriptive Statistical Test Results

	<i>Inflation</i>	<i>Exchange Rate</i>	<i>Interest Rate</i>	<i>ISSI</i>
<i>Mean</i>	1.72	14,610.38	3.91	159.93
<i>Median</i>	1.55	14,525.00	3.88	157.94
<i>Maximum</i>	2.96	16,367.00	4.50	183.36
<i>Minimum</i>	1.32	14,084.00	3.50	133.99
<i>Std. Dev.</i>	0.49	555.95	0.38	15.96
<i>Observations</i>	16	16	16	16

In table 1 above, descriptive statistical tests are presented so that it can be seen that during the Covid-19 pandemic: (i) the inflation variable had an average of 1.72; median 1.55; maximum value 2.96; minimum value 1.32 and standard deviation 0.49; (ii) the exchange rate variable has an average of 14,610.38; median 14,525.00; maximum value 16,367.00; minimum value 14,084.00 and standard deviation 555.95; (iii) the interest rate variable has an average of 3.91; median 3.88; maximum value 4.50; minimum value 3.50 and standard deviation 0.38; (iv) the ISSI share price variable has an average of 159.93; median 157.94; maximum value 183.36; minimum value 133.99 and standard deviation 15.96.

4.2. Regression Analysis

A good model must meet the Goodness of Fit (GoF) assumptions, so in this research the fit model was tested according to the standards in the WarpPLS application. The test results are presented in table 2 below.

Table 2. Model Fit and Quality Indices

<i>No.</i>	<i>Model Fit and Quality Indexes</i>	<i>Fit Criteria</i>	<i>Result</i>
1.	Average path coefficient (APC)	-	0.443, P=0,008
2.	Average R-squared (ARS)	-	0.146, P<0,001
3.	Average adjusted R-squared (AARS)	-	0.183, P<0,001
4.	Average block VIF (AVIF)	acceptable if ≤ 5 , ideally ≤ 3.3	2.188
5.	Average full collinearity VIF (AFVIF)	acceptable if ≤ 5 , ideally ≤ 3.3	10.364
6.	Tenenhaus GoF (GoF)	small ≥ 0.1 , medium ≥ 0.25 ,	1.071

No.	Model Fit and Quality Indexes	Fit Criteria	Result
		large ≥ 0.36	
7.	Sympson's paradox ratio (SPR)	acceptable if ≥ 0.7 , ideally = 1	1.000
8.	R-squared contribution ratio (RSCR)	acceptable if ≥ 0.9 , ideally = 1	1.000
9.	Statistical suppression ratio (SSR)	acceptable if ≥ 0.7	1.000
10.	Nonlinear bivariate causality direction ratio (NLBCDR)	acceptable if ≥ 0.7	1.000

By looking at the test results of the fit model in table 2 above, it can be seen that all the standards used have met the fit criteria, so that the proposed model is worthy of being a predictor. In addition, the test results above obtained an Adjusted R Square value of 0.183. This can be interpreted to mean that all independent variables, namely macroeconomic factors, are able to explain 18.3 percent of the sharia stock index price.

Next, to see the influence of each independent variable on the dependent variable in this research, the results of hypothesis testing are presented as in table 3 and figure 1 below.

Table 3. Hypothesis Testing Results

Model	Coefficient (β)	Std. Error	P value
Inflation \Rightarrow ISSI (H_1)	-0,159	0,224	0,244
Exchange rate \Rightarrow ISSI (H_2)	-0,312	0,202	0,072
Interest rate \Rightarrow ISSI (H_3)	-0,857	0,140	<0,001

* signifikan pada level 1%

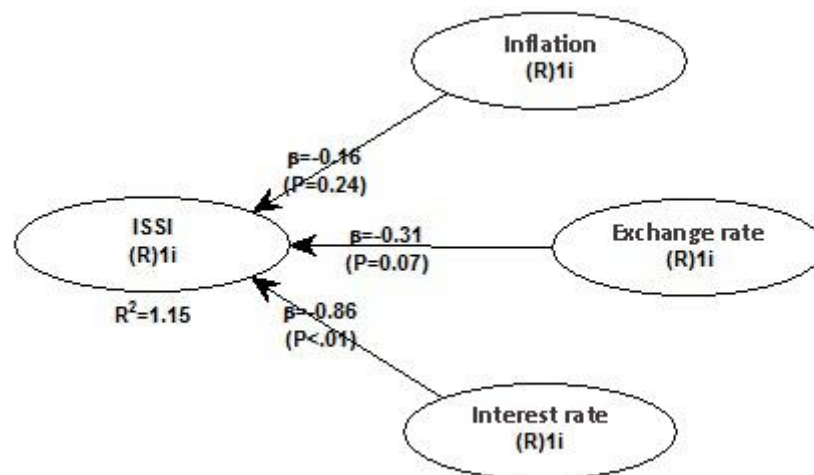


Figure 1. Research Model

By referring to table 4 and figure 1 above, the following results can be obtained:

- The effect of inflation on share value has a coefficient value of -0.16 and the probability value is greater than 0.01, namely 0.24, so it can be concluded that there is no influence between the inflation variable on the value of sharia shares.
- The influence of the exchange rate on share value has a coefficient value of -0.31 and a probability value greater than 0.01, namely 0.07, so it can be concluded that there is no

- influence between the IDR/USD exchange rate variable on the value of sharia shares.
- The influence of the interest rate on share value has a coefficient value of 0.86 and the probability is less than 0.01, so it can be concluded that there is an influence between the BI - Rate variable on the value of sharia shares.

4.3. Discussion

Based on the test results, the BI Rate has a significant negative influence on the Indonesian Sharia Stock Index. The coefficient shows that the influence of the inflation variable is 0.62 and the significance value is 0.00, far below 0.01.

BI Rate or BI7DRR is an interest rate set at the discretion of Bank Indonesia to achieve operational targets of monetary policy. The BI Rate is a reference interest which, once announced, will be quickly responded to by the banking industry. Implementation in the field will be carried out by slowly increasing bank loan interest rates. Likewise with Islamic banks, they will use this as benchmarking to remain able to compete with conventional banks (Tripuspitorini & Setiawan, 2020). This increase in interest rates will also be responded to by the money market by increasing returns on investment.

Likewise with issuers, as stated by Tripuspitorini (2021) that an increase in the BI Rate will cause interest expenses and profit sharing from company financing to increase and in turn reduce the company's profitability as an issuer on the capital market. Companies that experience declining profitability will also reduce their dividend distribution. Likewise, more attractive investment returns in the money market will make investors switch to the money market from the capital market. The impact will be seen from the decline in share prices along with the decline in demand for shares.

During the Covid-19 pandemic, the benchmark interest rate continued to decline, even reaching 3.50, which is the lowest level in history. This causes interest and profit sharing in financing for companies listed on ISSI to fall, thereby allowing company profits to increase. The impact is that company profits can increase, and dividends also increase, so that it becomes good value in the eyes of investors. So many investors will divert their funds from the money market to the capital market, in this case the sharia capital market. Thus, it can be concluded that the reference interest rate or BI rate has a negative and significant effect on the value of sharia shares and this research is in line with (Sudarsono, 2018; Tripuspitorini, 2021; Tripuspitorini & Setiawan, 2020; Wibowo, 2019)

5. Conclusion

Based on the research results above, several things can be concluded as follows:

- During the pandemic, the inflation variable did not statistically significantly influence the ISSI with a coefficient value of -0.16 and the probability value was greater than 0.01, namely 0.24, so it can be concluded that there was no influence between the inflation variable and the ISSI.
- During the pandemic, the IDR/USD exchange rate variable statistically did not significantly influence ISSI with a coefficient value of -0.31 and a probability value greater than 0.01, namely 0.07, so it can be concluded that there is no influence between the IDR/USD exchange rate variable. USD against ISSI.
- During the pandemic, the BI - Rate variable statistically significantly influenced ISSI with a coefficient value of 0.86 and the probability was less than 0.01, so it can be concluded that there was an influence between the BI - Rate variable and ISSI.

Meanwhile, suggestions that can be given based on the findings of this research are as

follows:

- For further research, it is necessary to develop a model by adding several other macroeconomic variables such as movements in international stock indices, Islamic bank certificates, industrial production indices and others.
- Investors are expected to consider macroeconomic variables in making investment decisions.

References

- Collins, C. N. (2020). Effect of COVID-19 Pandemic on Global Stock Market Values: A Differential Analysis. *Acta Universitatis Danubius (Economica)*, 16, 255–269.
- He, Q., Liu, J., Wang, S., & Yu, J. (2020). The impact of COVID-19 on stock markets. *Economic and Political Studies*, 8(3), 275–288. <https://doi.org/10.1080/20954816.2020.1757570>
- Junaedi, D., & Salistia, F. (2020). Dampak Pandemi Covid-19 terhadap Pasar Modal di Indonesia. *Al-Kharaj: Jurnal Ekonomi, Keuangan & Bisnis Syariah*, 2(2), 109–131. <https://doi.org/10.47467/alkharaj.v2i2.112>
- IDX. (2023). *Indeks Saham*. available: <https://www.idx.co.id/id/produk/indeks>
- Kusnandar, D. L., & Bintari, V. I. (2020). Perbandingan Abnormal Return Saham Sebelum dan Sesudah Perubahan Waktu Perdagangan Selama Pandemi Covid-19. *Jurnal Pasar Modal dan Bisnis*, 2(2), 195–202.
- Lalwani, V., & Meshram, V. V. (2020). Stock Market Efficiency in the Time of COVID-19: Evidence from Industry Stock Returns. *International Journal of Accounting & Finance Review*, 5(2), 40–44. <https://doi.org/10.46281/ijafr.v5i2.744>
- Liu, H., Manzoor, A., Wang, C., Zhang, L., & Manzoor, Z. (2020). The COVID-19 Outbreak and Affected Countries Stock Markets Response. *International Journal of Environmental Research and Public Health*, 17(8), 2800. <https://doi.org/10.3390/ijerph17082800>
- Mamahit, R. R., Tumbel, T. M., & Mangindaan, J. V. (2019). Pengaruh Variabel Makroekonomi Terhadap Indeks Harga Saham Gabungan (Studi pada Indeks Harga Saham Gabungan di Bursa Efek Indonesia Periode 2014-2018). *JURNAL ADMINISTRASI BISNIS (JAB)*, 8(2), 75–82. <https://doi.org/10.35797/jab.8.2.2019.23565.75-82>
- Mishkin, F. (2008). *Ekonomi Uang, Perbankan dan Pasar Keuangan*. Jakarta: Salemba Empat.
- Okezone. (2020, September 24). *Alhamdulillah, Investor Pasar Modal Syariah Naik 20% di Tengah Covid-19: Okezone Economy*. <https://idxchannel.okezone.com/.https://idxchannel.okezone.com/read/2020/09/24/278/2283026/alhamdulillah-investor-pasar-modal-syariah-naik-20-di-tengah-covid-19>
- Pitaloka, H., Umar, A. U. A. A., Hartati, E. R., & Fitria, D. (2020). The economic impact of the COVID-19 outbreak: Evidence from Indonesia. *Jurnal Inovasi Ekonomi*, 5(02), Article 02. <https://doi.org/10.22219/jiko.v5i3.11833>
- Republika. (2020, Juni 15). *Pasar Modal Syariah Lebih Kebal di Tengah Pandemi*. Republika Online. <https://republika.co.id/share/qbx6k9396>
- Rizkiansyah, I., & Sudaryanto. (2020). Pengaruh Variabel Makroekonomi terhadap Indeks Harga Saham Perbankan Infobank15 Periode 2015–2019. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, & Akuntansi)*, 4(3), 1933–1953. <https://doi.org/10.31955/mea.vol4.iss3.pp1933-1953>
- Setyani, O. (2017). Pengaruh Inflasi Dan Nilai Tukar Terhadap Indeks Saham Syariah Indonesia. *ISLAMICONOMIC: Jurnal Ekonomi Islam*, 8(2), 213–238. <https://doi.org/10.32678/ije.v8i2.76>
- Sudarsono, H. (2018). Indikator Makroekonomi dan Pengaruhnya Terhadap Indeks Saham

- Syariah di Indonesia. *Esensi: Jurnal Bisnis dan Manajemen*, 8(2).
<https://doi.org/10.15408/ess.v8i2.7219>
- Tripuspitorini, F. A. (2021). Analisis Pengaruh Inflasi, Nilai Tukar Rupiah, dan BI-Rate terhadap Harga Indeks Saham Syariah Indonesia. *Jurnal Maps (Manajemen Perbankan Syariah)*, 4(2), 112–121.
- Tripuspitorini, F. A., & Setiawan, S. (2020). Pengaruh Faktor Makroekonomi Terhadap Pertumbuhan Dana Pihak Ketiga Pada Bank Umum Syariah di Indonesia. *Jurnal Riset Akuntansi dan Keuangan*, 8(1), 121–132.
- Wibowo, F. W. (2019). Determinan Tingkat Suku Bunga, Indeks Dow Jones, Nikkei 225, Dan Straits Time Terhadap ISSI. *El Dinar : Jurnal Keuangan dan Perbankan Syariah*, 7(1), 32–47.
<https://doi.org/10.21107/mediatrend.v11i2.1441>
- World Health Organization. (2020). *Coronavirus*. WHO.
<https://www.who.int/westernpacific/health-topics/coronavirus>
- Worldometer. (2021). *Coronavirus Update (Live): 114,365,592 Cases and 2,536,703 Deaths from COVID-19 Virus Pandemic*. Worldometer.
<https://www.worldometers.info/coronavirus/>