



The effect of inflation, interest rates, and usd exchange on the indonesian sharia stock index (ISSI) Period 2019-2022

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ABSTRACT

Establishing an Islamic capital market is necessary in Indonesia as an Islamic country, one of which is the Indonesian Sharia Stock Index (ISSI). Like other conventional stocks, ISSI as a capital market can also be influenced by various factors, including inflation, BI interest rates and the USD exchange rate. This study aims to determine the effect of inflation, BI interest rates, and the USD exchange rate on the price of the Indonesian Islamic stock index for the 2019-2022 period. This study uses secondary data from 2019-2022, and the analytical method uses parallel data with multiple regression analysis. The results of this study indicate that inflation has a significant effect on the ISSI index, while BI interest rates and the USD exchange rate have no effect on the ISSI index. However, when analyzed simultaneously, inflation, BI interest rates and the USD exchange rate significantly affect the price of the ISSI index. These findings provide valuable insights for investors and policy makers in understanding the dynamics of the ISSI index and formulating investment strategies in the Indonesian Islamic capital market.

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1. INTRODUCTION

According to data from the BPS (Central Statistics Agency) "Indonesia has the fourth-largest population in the world, behind the PRC (People's Republic of China), India, and the United States. The estimated population of Indonesia is 250 million. With 40% of Southeast Asia's 600 million people as its total population, Indonesia has the largest population in the region of Southeast Asia. The percentage of Muslims in Indonesia is as high as 87.8%".

Especially in Indonesia, the current trend of economic globalization appears to have an impact on every company there (Lestari et al. 2020). Rochman dan Irawati (2018) stated "The rising volume of stock trading on the Indonesia Stock Exchange (IDX) and the increasing number of shares traded indicate that many investors in Indonesia are currently interested in investing through the capital market."

The MUI (Indonesian Ulema Council) established a working group to set up Islamic banks in Indonesia in 1990, marking the beginning of the sharia system in that country. The first Islamic bank was founded in Indonesia in 1991. The Indonesian capital market sector, the Jakarta Stock Exchange (BEJ) and the Surabaya Stock Exchange (BES), which have since merged to form the Indonesia Stock Exchange, developed the sharia system in response to the Muslim population's growing enthusiasm for sharia services (IDX). The creation of this sharia instrument serves to

support the development of the Indonesian Sharia Stock Index (ISSI), which was launched on May 12, 2011, a sharia capital market.

All Islamic stocks listed on the IDX's main board and development board and listed on the OJK's Sharia Securities List (DES) are included in the Indonesian Sharia Stock Index. Following the DES review schedule, ISSI constituents are re-elected twice a year, in May and November. Therefore, there are always Islamic stocks that exit or enter to become ISSI constituents during a selection period. The weighted average of market capitalization with December 2007 serving as the base year is the method used to calculate the ISSI, which is similar to other IDX stock index calculation methods. Investors who want to make investments in accordance with sharia have an answer in ISSI. In other words, ISSI is an investment guide for investors.

Indonesia's economy has been negatively impacted by the global economic crisis of 2008, which affected a lot of nations. The Ministry of Finance and Bank Indonesia estimate that Indonesia's debt will reach or even surpass US\$390.2 billion as of October 2022. In addition to the high level of foreign debt, macroeconomic conditions have some degree of influence on the investment climate in Indonesia's capital market. Considering that businesses with foreign debt are required to make payments in foreign currencies, the rupiah exchange rate is one of the macroeconomic factors affecting liquidity. On February 7 2023, the rupiah exchange rate even reached a low of 15,179.10 per US dollar.

As the country's central bank, Bank Indonesia has a responsibility to implement monetary policy, specifically by regulating economic stability to prevent inflation or deflation. The reference interest rate is set by Bank Indonesia according to a policy known as the BI rate. A high BI rate typically indicates bad news for stock prices. According to (Andriyani & Armereo, 2016), stock prices and interest rates have an inverse relationship, with stock prices falling when interest rates are high and vice versa.

(Kewal Suci, 2012) stated that "Most often, overheated economic conditions are the cause of high inflation rates. In other words, when economic conditions cause product demand to exceed supply, the overall price of the product will rise." Because inflation raises a company's expenses, it has a relatively negative impact on stock prices. The profitability of the business will decline if the cost growth outpaces the revenue growth. Investors won't be interested in investing in the company if profits decline. As a result, stock prices will drop, which will have an effect on stock returns (Tandelilin, 2010)

The interest rate applied by the central bank or Bank Indonesia, also known as the BI rate, has an effect on stock prices. Interest rates will cause capital expenditure to rise. The increase in capital expenditure will affect the company's operating profit. Shrinking profits due to pressure from costs will influence investors to make decisions and will have an impact on stocks so that it will affect the Indonesian Sharia Stock Index (ISSI).

Currency exchange rate depressed by the dollar will affect stock prices. This is due to the cost of raw materials from outside when the company conducts international trade. The international trade that was carried out did not generate maximum profit because of the weakening currency exchange rate against other currencies.

The inflation rate causes an increase in the prices of various goods in various sectors, both from the upstream sector to the downstream sector. The inflation rate will cause the company's contribution margin to fall. The decreased contribution margin causes operating profit to also decrease. On the other hand, operating expenses will increase in terms of marketing as well as in terms of administration and finance. Eroded profits and increased expenses will affect the company's operating profit and net profit. "Based on the background described above, the researcher is interested in conducting research entitled Effects of Inflation, Interest Rates, and the USD Exchange on the Indonesian Sharia Stock Index (ISSI) for the 2019-2022 period".

2. RESEARCH METHOD

This type of study is known as causality research, and it uses quantitative techniques to determine the causal relationship between the independent and dependent variables. This study examines the impact of interest rates and the exchange rate on the Indonesian Sharia Stock Index (ISSI). Companies (issuers) listed on the Indonesian Sharia Stock Index (ISSI) between December 2019 and December 2022 make up the study's population. The average share value of index members is

used to create a total sample, which includes every member of the population. Indonesian Sharia Shares (ISSI)

The type of data used is time series data, which is periodically collected to track an event's or activity's development over time. The data used in this study were obtained from secondary sources, also known as indirect sources, such as books, notes, records that have already been published or unpublished archives, or existing evidence.

In this study, documentation techniques were used for data collection. Documentation techniques are ways of gathering data by looking through documents associated with the research being done (Sugiyono, 2019). Official data on the Indonesian Sharia Stock Index (ISSI), exchange rates, interest rates, and inflation are included in the document.

The following is the deep hypothesis of this research, which is based on theoretical studies and of prior research: H1: The interest rate has a significant effect to the Indonesia Sharia Stock Index (ISSI), H2: Exchange rates have a significant effect to Indonesia Sharia Stock Index (ISSI), H3: Inflation has a significant effect on Indonesia Sharia Stock Index (ISSI).

With the aid of the EVIEWS 12 program, multiple regression is used as a data analysis technique. The normality test, heteroscedasticity test, and multicollinearity test—commonly referred to as the "classical assumption test"—are prerequisites for multiple regression analysis.

Classic assumption test

Normality test

The data must be regularly distributed in order to be used for multiple regression testing. The purpose of the residual normality test in this study, according to Ghazali (2011), is to determine whether the residuals or confounding variables in the regression model have a normal distribution. The Jarque Berra method was used to conduct the normalcy test. If the probability value is more than 0.05, the data is said to fall into the normal group.

Heteroscedasticity Test.

This test seeks to determine whether there is an inequality of variance between one residual and another observation in the regression model. the glejser test for heteroscedasticity. Decisions about the heteroscedasticity test are based on: (a) If the probability value is > 0.05 , nothing will happen, (b) Heteroscedasticity If the probability value is < 0.05 , there is heteroscedasticity

Multicollinearity Test

Multicollinearity is a situation where there is a correlation of independent variables. The multicollinearity test is needed to determine whether there are independent variables that have similarities between the independent variables in a model. Muticolinarity testing in this study used the Variance Inflation Factor (VIF). The criteria used are if the centered VIF value is less than 10, then the variable is free from multicollinearity symptoms.

Autocorrelation Test

This test looks to see if there is no association between one observation and other observations that are arranged according to time. Autocorrelation is absent from a decent regression model. If the Durbin-Watson value falls between -2 and 2, data is considered to be free of autocorrelation symptoms. The Durbin-Watson value is classified as "no decision" if it falls outside of this range but is between -4 and 4.

Linearity Test

The purpose of the linearity test is to determine whether or not there is a meaningful linear relationship. The linearity of good regression circumstances does not exist. If the probability value is greater than 0.05, the data is classified as being free from linearity and as BLUE (Best Linear Unbiased Estimation).

2.1 Data analysis technique

a. Determination Coefficient Test (Adjusted R Square)

The regression model's goodness-of-fit is evaluated using this test. The ability of the model to describe the variance of the model in explaining the fluctuation of dependent variables is measured by the coefficient of determination (R^2).

b. Hypothesis testing

F test, The F test is carried out to test whether simultaneously the independent variables are able to explain the dependent variable well or to test whether the model used is fixed, if the sig value < 0.05 indicates that the independent variables together have a significant influence on the dependent variable.

t test

The t test was carried out to test whether separately the independent variables were able to explain the dependent variable well, provided that if the sig value < 0.05 and the t count $>$ t table then the hypothesis is accepted.

3. RESULTS AND DISCUSSIONS

The Indonesian Sharia Stock Index (ISSI) is the subject of this study's investigation into the impact of "Interest Rates, Exchange Rate Inflation, and the USD Exchange Rate". The table displays the findings of the descriptive analysis

Table 1 . Descriptive Statistical Test Results

	Inflation (X1)	BI Rate (X2)	USD Rate (X3)	ISSI Stock Price Index (Y)
Means	0.027077	0.043490	14471.97	181.1400
Median	0.026050	0.040000	14336.74	185.9000
Maximum	0.059500	0.060000	15867.43	217.7300
Minimum	0.013200	0.035000	13732.23	133.9900
std. Dev.	0.012782	0.009178	474.4401	20.47830
Observations	48	48	48	48

Source: Results of processing using Eviews 12

a. Classical Assumption Test Results

3.1 Normality test

The regression model is thought to be effective because the data distribution is normal. This study employed the Jarque-Bera (JB) normality test as a normality test. In cases where the JB probability is greater than 0.05, the data is normally distributed (Ghozali, 2018).

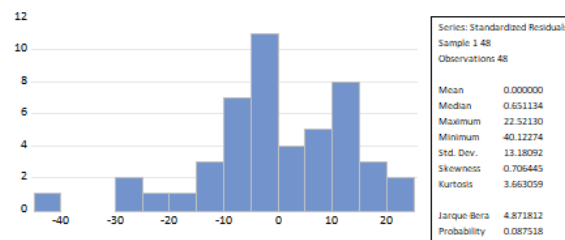


Figure 2 . Normality Test Results

The Jarque-Bera probability value in Figure 2. is greater than 0.05 and equal to 0.087 518 , so the data is normally distributed.

3.2 Multicollinearity Test

Determining the correlation between independent or independent variables by using a multicollinearity test, if it is above 0.90 or > 10 , it can be a sign that multicollinearity is occurring Ghozali (2018)

Table 2. Multicollinearity Test

	X ₁	X ₂	X ₃
X ₁	1.0000	0.37987	-0.19304
X ₂	0.37987	1.0000	0.40453
X ₃	-0.19304	0.40452	1.0000

Source: Results of processing using Eviews 12

Table 2 . shows that the inflation, BI rate, and USD exchange variables are free from multicollinearity.

3.3 Heteroscedasticity Test

This study uses the Glesjer test. The regression model is free from signs of heteroscedasticity if the probability value of each variable derived from the calculation results is more than $\alpha = 0.05$.

Table 3. Heteroscedasticity Test

Heteroskedasticity Test: Glesjer	
Null hypothesis: Homoskedasticity	
Prob. F(3,44)	0.1132
Prob. Chi-Square(3)	0.1104
Prob. Chi-Square(3)	0.1002

Source: Results of processing using Eviews 12

There is no heteroscedasticity problem that can be seen from Table 3. Heteroscedasticity test results using the Glesjer test. This is because each independent variable probability value is greater than 0.05.

3.4 Hypothesis Test Results

Table 4. Hypothesis Testing

Variable	Coefficient	t-statistics	Prob.
C	21.04882	0.263886	0.7931
X ₁	1264,955	5.945987	0.0000
X ₂	-643.2406	-2.023558	0.0591
X ₃	- 467. 1062	-5.833277	0.0000
Adjusted R-Square	0.461725		
Prob(F-statistic)	0.000005		

Source: Results of processing using Eviews 12

The multiple linear data regression equations listed below can be constructed from table 4 :
 $ISSI = 21.05 + 1264.955 \text{ Inflation} - 643.2406 \text{ BI Rate} - 467.1062 \text{ USD exchange rate} + \varepsilon (1)$

Based on this description , it can be shown as follows: (a) If there were no inflation, exchange rate and BI Rate variables, then the ISSI Index would definitely increase to 21.05. (b) If the USD Exchange Rate and BI Rate variables increase by 1 percent where the Inflation variable is constant, it will increase the ISSI Index value by 1264,955 with a positive coefficient, meaning that there is a relationship between Inflation and the ISSI Stock Index. The higher the inflation value, the higher the value of the ISSI Stock Price Index. (c) If the inflation variable and the USD exchange rate increase by 1 percent, where the BI rate variable is constant, it will reduce the ISSI stock index by -643.2406, the coefficient is negative, meaning that there is a negative relationship between the exchange rate and the JII stock price index, the higher the interest rate, then the value of the ISSI Stock Price Index decreases. (d) If the inflation and exchange rates increase by 1 percent, where the BI Rate variable is constant, then it will reduce the ISSI Stock Price Index by - 467. 1062 coefficients are positive , meaning there is a relationship between the USD exchange rate and the Index . ISSI shares, the higher the USD Exchange rate, the higher the value of the ISSI Stock Price Index.

3.5 Coefficient of Determination

To ascertain how much the independent variable affects the dependent variable, the coefficient of determination is examined. The outcome of calculations based on the R-Squared value in table 4 is 0.461725. This is a reference to the 46.17% variable ability of the ISSI Index to be explained by the USD Exchange Rate, Interest Rates, and inflation. While other additional elements that were not taken into account in this study have an impact on the remaining 53.83%.

3.6 F test

The F test was used to determine the overall significance of the independent variable in relation to the dependent variable (together). Based on the test results, Table 4 displays the Prob value (F-statistic), which is 0.00005. This indicates a value that is less significant than the 5%

cutoff. As a result, it is acceptable to reject H_0 and H_a . Inflation, interest rates, and the USD exchange rate are all found to have a significant impact on the ISSI index at the same time.

3.7 t test

If the probability value of t is less than 0.05, the hypothesis is tested to see if it is accepted or rejected. If the result is significant, it means that each independent variable has an impact on the dependent variable.

a. Effect of Inflation on the Indonesian Sharia Index (ISSI)

"The results of multiple regression analysis testing show a probability result that is equal to 0.0000 and is less than 0.05, H_0 is rejected and H_1 is approved. This means that INFLATION has an influence on the Indonesian Sharia Stock Index (ISSI)."

b. The influence of the BI rate on the Indonesian Sharia Stock Index (ISSI)

"It can be seen from the test results from the table above with multiple regression analysis which shows that the probability value is 0.0591 which is greater than 0.05. This states that the BI rate has no significant effect on the Indonesian Sharia Stock Index (ISSI)."

c. Effect of the USD Exchange Rate on the Indonesian Sharia Stock Index (ISSI)

"It can be seen from the test results from the table above with multiple regression analysis which shows that the probability value is 0.0000 which is less than 0.05. This states that the USD exchange rate has a significant influence on the Indonesian Sharia Stock Index (ISSI)."

3.8 Discussion

The macroeconomic indicators of inflation, exchange rates, and the BI Rate are used in this study as independent variables that are connected to the Indonesian Sharia Stock Index (ISSI). It is undeniable that as investors build their assets for use as collateral or future investments, the power or index in the global capital market will either increase or decrease. The findings of this study will be used to discuss what might happen if certain macroeconomic indicators rose:

This study demonstrates that the ISSI Stock Price Index is significantly impacted by inflation. The correct premise is that investors' interest in investing will decline when inflation occurs quickly and rises sharply from before. The stock price and stock index of the company will decline due to waning investor interest (Utami and Herlambang, 2016). This is consistent with research findings (Yuniarti and Litriani, 2017) that show inflation has an impact on ISSI stock prices that is significant and significant, i.e., an increase. For capital market investors, inflation will generally send a bad message. Inflation is thus also referred to as a risk to purchasing power (Laila and Rahmawati, 2015). Investors typically request an additional premium for inflation if it rises in order to make up for the loss of purchasing power they experience. The ISSI stock price changes are significantly influenced by inflation.

In the meantime, the ISSI is not significantly impacted by the BI Rate. This is because the BI Rate, a monetary policy adopted by the government to combat inflation when it is rising or falling, follows the flow of fluctuations brought on by inflation. The government must raise the BI Rate in order to keep prices stable and keep inflation from rising too much given the large amount of money in circulation, which can cause inflation. This is consistent with Keynes' theory, which claims that income determines investment decisions rather than interest rates (Sumariyah, 2011). Because people will consider their income when making investments rather than seeing increases or decreases in the BI Rate, Keynes' theory concludes that there is absolutely no relationship between interest rates and the growth of stock indices.

The USD exchange affects the ISSI index. This is in line with (Auliana and Tahmat, 2019). This can happen because of the type of investor who sees the percentage of shares on the IDX owned mainly by foreigners, if foreign investors use foreign currency (Aini, et.al. 2020). This is consistent with Keynes' theory, which claims that income determines investment decisions rather than interest rates (Sumariyah, 2011). Because people will consider their income when making investments rather than seeing increases or decreases in the BI Rate, Keynes' theory concludes that there is absolutely no relationship between interest rates and the growth of stock indices. According to Suciningtyas and Khoiroh (2015), businesses with foreign debt and those engaged in import-related activities will be impacted if the currency depreciates. Because of the weakening of the domestic currency, the company will have to bear higher costs than before, which will undoubtedly lower profits. When the stock price drops, the ISSI stock index will also drop, which

will cause the company's stock price to drop. The findings of this study are consistent with those of earlier research by Ginting (2016) and Andes (2017) which demonstrated that exchange rates significantly affect stock prices.

4. CONCLUSION

From this study, it can be concluded that inflation and the USD exchange rate have an effect on the price of the Islamic Stock Index (ISSI), because inflation can also be referred to as purchasing power risk and exchange rate risk (exchange rate) related to fluctuations in the domestic currency exchange rate (the country of the company). with other countries' currencies. In the interest rate variable, the BI rate has no effect on the Price of the Indonesian Sharia Stock Index (ISSI), because investment does not depend on interest but investment depends on income. Inflation Simultaneously, the BI Rate and the USD Exchange Rate affect the Price of the Indonesian Sharia Stock Index (ISSI).

This study has several suggestions, namely that it is hoped that further research will add other variables besides inflation, exchange rates, and interest rates related to macroeconomics or the issuer's internal variables listed in the ISSI. For example BI 7 days and the amount of money in circulation (JUB). As well as in this study the number of samples studied was still small, namely 5 years, it is hoped that further researchers will add samples from the beginning of ISSI's formation until now.

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