# ANALYSIS FACTOR KURS, INFLATION RATE, INTEREST RATE AND BANK CENTRAL SHARIA CERTIFICATE OF SHARIA STOCK INDEKS

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### **Abstract**

This study aims to determine the effect of the exchange rate, inflation rate, interest rate, and central bank sharia certificate on the sharia stock index. The data used in this study is in the form of panel data using a sample of 50 companies registered on the sharia stock index for 2017-2021. The data analysis technique in this study uses panel data analysis with the fixed effect model. The results showed that simultaneously the exchange rate, inflation rate, interest rate, and the Central Bank's sharia certificate had a significant effect on the sharia stock index. This is based on the results of the F test, namely the calculated F value > F table (47.86140> 2.44) with a prob level (F-Statistic) of 0.000 using an  $\alpha$  level of 0.05 or 5%. While partially the exchange rate and inflation rate have no effect on the sharia stock index, but the interest rate and the central bank sharia certificate have a significant effect on the sharia stock index.

Keywords: Sharia stock index, exchange rate, inflation rate, interest rate, central bank sharia certificate.

### 1. INTRODUCTION

The recent global economic crisis caused by the impact of the corona virus pandemic has caused a decline in a country's economic growth. Bank Indonesia in a press release stated that Islamic financial institutions have stronger resilience in facing crises compared to other financial services. This stronger resilience is due to the values possessed by the Islamic economy, including stronger values of justice, balance and transparency. Islamic economics and finance are expected to be present and offer solutions for national economic resilience in the midst of the current pandemic. The development of the Islamic economy in Indonesia started with the establishment of Islamic banks in Indonesia, some of which were established directly as Islamic Commercial Banks or even from Islamic Business Units (UUS) of Conventional Banks which were then spin-off to become Islamic commercial banks. Seeing how Islamic banks survive in a state of economic crisis makes other financial service institutions turn to Islamic principles such as insurance, pawnshops, and even the capital market.

The capital market is a market that provides a variety of long-term financial instruments that can be traded, including debentures (bonds), equity (shares), mutual funds, derivative instruments, and similar instruments. Indonesia Stock Exchange or Index Stock Exchange which is a party to organizing various activities in the capital market, both the general capital market and the Islamic capital market in Indonesia. The Islamic stock index was formed to separate Islamic and non-Islamic stocks which are combined by the Composite Stock Price Index (IHSG), so that investors who wish to invest their funds in Islamic stocks are not misplaced. With the existence of the sharia stock index (ISSI), the development of the sharia capital market has developed very significantly. This is evident from the increasing number of sharia shares listed on the Indonesian Stock Exchange since the last 10 years, data for 2020 there were 456 sharia shares circulating on the Indonesian stock exchange. Meanwhile, the number of Islamic investors has also continued to

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increase over the last 5 years, there were 81,413 investors in 2020 who made transactions in Islamic stocks.

### 2. LITERATURE REVIEW

# 2.1 Indonesian Capital Market

Capital Market Law No. 8 of 1995 concerning Capital Markets Article 1 Paragraph (12) defines capital markets as "Activities related to public offerings and securities trading, public companies related to securities that have been issued, as well as institutions and professions related to securities". Securities are any securities issued by a company, namely debt acknowledgments, commercial paper, stocks, bonds, proof of debt, proof of rights (rights issue), and warrants. The definition of the capital market is also stated in Law No. 21 of 2011 concerning the Financial Services Authority, it is stated that the capital market is an activity concerned with the offering and public and trading of securities, public companies related to the securities issued and institutions and professions related to effect.

The Islamic capital market is a capital market in which the entire mechanism of its activities, especially regarding issuers, the types of securities traded and the mechanism traded, are in accordance with sharia principles. The Islamic capital market is an activity concerned with public offerings and securities trading, public companies related to securities that carry out their activities in accordance with Islamic sharia principles, in economic activity transaction activities and apart from prohibited matters such as: usury, gambling, speculation and others.

## 2.2 Sharia stock index

The Islamic stock index is a number level that shows the performance of Islamic stocks or Islamic stock markets. The sharia stock index is an indicator for comparison and a measure of the performance of the sharia stock portfolio. sharia stock index is an index that reflects the performance of all stocks on the list of sharia securities. The stock index is a record of changes and stock price movements since it was first circulated until at a certain point. The function of this stock index is to measure market trends and provide stock market information to both investors and the general public. The purpose of holding the Sharia Index is to serve as a benchmark to measure investment performance in Islamic stocks and increase investor confidence to develop investment in equity in a sharia manner and in accordance with sharia principles.

# 2.3 Exchange rate

The exchange rate or currency exchange rate is a record of the market price of foreign currency in the price of the domestic currency, namely the price of the domestic currency and foreign currency, the exchange rate can be explained as a comparison between the value or price of the currencies of two countries. In addition, the exchange rate can also be interpreted by determining the number of units of one currency that can be purchased with one unit of another currency. The exchange rate is an amount of money from a country that can be exchanged with foreign countries in terms of conducting trade transactions between countries, the amount of the exchange rate is influenced by the supply and demand for the country's currency. In Indonesia, a free floating exchange rate system has been implemented since August 14, 1997 until now. With the implementation of this system, the rupiah exchange rate is fully determined by the market, so that the prevailing exchange rate truly reflects the balance between the forces of supply and demand.

#### 2.4 Inflation rate

Inflation rate is an economic symptom that shows a continuous increase in the general price level. The condition for the inflation rate is that there is a general and continuous increase in prices. If only one or two types of goods increase, for example price increases due to seasonality, ahead of holidays, disasters and so on, then it is not called an inflation rate. The existence of a state of economic instability in a country caused by an increase in the price of goods as a whole and continuously, on the other hand, there is an increasing circulation of money in society.

### 2.5 Interest rate

The interest rate is a measure of the return on investment that can be obtained by the owner of capital and is also a measure of the cost of capital that must be incurred by the company for the use of funds from the owner of capital. The interest rate is the cost of the loan or the price paid for the loan and is usually expressed as an annual percentage. The interest rate is one of the monetary indicators that has an impact on economic activity.

### 2.6 Bank central sharia certificate

Bank central sharia certificates are securities denominated in rupiah issued by Bank Indonesia for a short term and based on sharia principles. Central bank sharia certificate is a sharia principle based short term securities issued by the central bank. In issuing sharia certificate instruments, Bank Indonesia uses the Ju'alah contract. Central bank sharia certificate is a money market instrument that is traded in rupiah currency and is traded according to Sharia and issued by the central bank.

### 2.7 Research Hypothesis

- 1. It is suspected that the exchange rate, inflation rate, interest rate and central bank sharia certificate simultaneously have no significant effect on the sharia stock index.
- 2. It is suspected that the exchange rate, inflation rate, interest rate and central bank sharia certificate simultaneously have a significant effect on the sharia stock index.
- 3. It is suspected that the exchange rate, inflation rate, interest rate and central bank sharia certificate partially have no significant effect on the sharia stock index.
- 4. It is suspected that the exchange rate, inflation rate, interest rate and central bank sharia certificate partially have a significant effect on the sharia stock index.

### 3. RESEARCH METHODS

This research was conducted on Islamic issuers listed on the Sharia Stock Index for the 2017-2021 period. Research variable data were obtained from the official website of Bank Indonesia (www.bi.go.id) and the Financial Services Authority (www.ojk.go.id) as well as from the company's annual share price list report taken from the stock exchange website (www.idx.go.id).

# 3.1 Population and Sample

The population in this study consisted of 150 issuers listed on the Indonesian stock exchange, then a sample of 50 issuers was determined with the sample criteria.

1. Sharia issuers who are included in the list of sharia stock indexes during the 2017-2021 period.

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- 2. Sharia issuers who have consistently been included in the list of sharia stock indexes during the 2016-2021 period.
- 3. Sharia Issuers provide complete data needed during the 2017-2021 observation period.

## 3.2 Operational Variables

Table 1 Operational Variables

No	Variabel	Definisi	Skala			
1	Kurs	The price of a country's money against the value of	Ratio			
		another country's money.				
2	Inflation rate	The decline in the value of money compared to the	Ratio			
		price of goods and services continues to rise.				
3	Interest rate	Repay the services provided by the bank to other parties	Ratio			
		who buy or sell their products				
4	Bank central sharia	Securities based on sharia principles issued by	Ratio			
	certificate	Indonesian banks.				
5	Sharia Stock	A stock index that reflects all sharia stocks listed on	Ratio			
	Indeks	the IDX.				

# 3.3 Data Analysis Method

The data used in this study is in the form of panel data where the data combines time series data and cross-sectional data. Panel data regression analysis in this study is used to predict the relationship between the dependent and independent variables. The research equation model is as follows:

$$Y = \alpha_0 + \alpha_1 X_1 it + \alpha_2 X_2 it + \alpha_3 X_3 it + \alpha_4 X_4 it + \varepsilon_{it}$$

Information:

Y = Stock price  $\alpha 0$  = constant

 $\alpha 1 - \alpha 4$  = regression coefficient of each independent variable

X1 = exchange rate X2 = Inflation rate X3 = Interest rate

X4 = Bank central sharia certificate

 $\epsilon$  = Term of error i = Company t = Time

### 4. RESULTS AND DISCUSSION

## 4.1 Panel Data Model Test Results (Chow Test)

Table 2 Chow Test Results

Redundant Fixed Effects Tests
Test cross-sectionfixedeffects

EffectsTest	Statistic	d.f.	Prob.	
Cross-sectionF	55.209805	(25,100)	0.0000	
Cross-section Chi-square	350.323062	25	0.0000	

Source: Research data, 2021

Based on the results of the Chow Test above, it can be seen that the probability value is 0.0000 for the Chi-square Cross-section. In accordance with predetermined criteria where 0.0000 is smaller than the alpha value of 0.05, from this it can be concluded that the Fixed Effect Model

(FEM) model is better used in this study compared to the Common Effect Model (CEM) model.

## **4.2 Panel Data Model Test Results (Hausmant Test)**

### Table 3 Hausmant Test Results

Correlated Random Effects -Ha	usman Test					
Testcross-sectionrandomeffects						
Test Summary	Chi-Sq.Statistic	Chi-Sq.d.f.	Prob.			
Cross-section random	129.191590	4	0.0000			
Source: Research data, 2021						

Based on the results of the Hausman test above, it can be seen that the probability value is 0.0000 for a random cross-section. In accordance with predetermined criteria where 0.0000 is smaller than the alpha value of 0.05, from this it can be concluded that the Fixed Effect Model (FEM) model is better used in this study compared to the Random Effect Model (REM) model.

### **4.3 Partial Test (t test)**

# Table 4 Partial Test Results (t test)

Dependent Variable: LN\_SSI Method:Pooled Least Squares

Sample:20172021 Includedobservations:5 Cross-sectionsincluded:50

Totalpool(balanced)observations: 250

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-19.33292	26.09165	-0.740962	0.4605
LN_KURS	2.821253	2.757904	1.022970	0.3088
INF RATE	-6.976889	12.93777	-0.539265	0.5909
I RATE	-51.31665	21.94286	-2.338649	0.0213
BCSC	40.05392	16.52081	2.424452	0.0171

Source: Research data, 2021

Based on the data above, the t value for the exchange rate variable is 1.022970 < t table where the t table value in this study is 1.65666, and the exchange rate probability value is 0.3088 > t the  $\alpha$  value is 0.05. This can be interpreted that the exchange rate partially has no effect on Islamic stock prices on Islamic issuers. For the inflation rate variable, the t value is obtained for (0.539265) < t table, namely 1.65666 and the inflation rate probability value is 0.5909 > t the  $\alpha$  value is 0.05. This means that the inflation rate partially does not affect the stock price of Islamic issuers , then for the interest rate variable, the calculated t value is (2.338649) > t table, which is 1.65666 and the interest rate probability value is 0.0213 < t a value is 0.05, this means that the interest rate partially has a significant negative effect on stock prices for sharia issuers, and for the central bank sharia certificate variable, the tcount value is 2.424452 > t table, which is 1.65666 and the probability value for the central bank sharia certificate is 0.0171 < t the  $\alpha$  value is 0.05. This means that the central bank's sharia certificate partially has a significant positive effect on the share price of sharia issuers.

### 4.4 Simultaneous Test (F test)

Table 5 Simultaneous Test Results (F test)

Table 5 Simultaneous Test Results (T test)						
EffectsSpecification						
Cross-sectionfixed(dummyv	variables)					
R-squared	0.932795	Meandependentvar	7.087164			
AdjustedR-squared	0.913305	S.D.dependentvar	1.614831			
S.E.ofregression	0.475470	Akaikeinfocriterion	1.550149			

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Sumsquared resid	22.60719	Schwarzcriterion	2.211888
Loglikelihood	-70.75970	Hannan-Quinncriter.	1.819036
F-statistic	47.86140	Durbin-Watsonstat	1.381385
Prob(F-statistic)	0.000000		

Source: Research data, 2021

Based on the test results, it can be seen that the calculated F value is 47.86140 which is greater than the F table, which is 2.44. The calculated F significance value is 0.00000 which is smaller than the specified  $\alpha$  level of 0.05. From these two things, it can be concluded that Ha is accepted and H0 is rejected. This means that there is a significant simultaneous effect of the exchange rate, inflation rate, interest rate and central bank sharia certificate on the sharia stock index of sharia issuers.

# 4.5 Coefficient of Determination (R2)

**Table 6** Results of the Coefficient of Determination (R2)

EffectsSpecification						
Cross-sectionfixed(dummyvariables)						
R-squared	0.932795	Meandependentvar	7.087164			
AdjustedR-squared	0.913305	S.D.dependentvar	1.614831			
S.E.ofregression	0.475470	Akaikeinfocriterion	1.550149			
Sumsquared resid	22.60719	Schwarzcriterion	2.211888			
Loglikelihood	-70.75970	Hannan-Quinncriter.	1.819036			
F-statistic	47.86140	Durbin-Watsonstat	1.381385			
Prob(F-statistic)	0.000000					

Source: Research data, 2021

Based on the test results above, it is known that the coefficient of determination is the adjusted R-square of 0.91. This can be interpreted that 91% of the variation in the share price of Islamic issuers listed on the Islamic stock index can be explained by the exchange rate, inflation rate, interest rate and central bank sharia certificate while 9% is explained by other variables outside the research model.

# 4.6 Panel Data Regression Analysis Results

 Table 7 Partial Test Results (t test)

Dependent Variable: LN\_HSS Method:Pooled Least Squares

Sample:20172021 Includedobservations:5 Cross-sectionsincluded:50

Totalpool(balanced)observations: 250

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-19.33292	26.09165	-0.740962	0.4605
LN_NT	2.821253	2.757904	1.022970	0.3088
INF	-6.976889	12.93777	-0.539265	0.5909
SB	-51.31665	21.94286	-2.338649	0.0213
Bank Central Sharia Certificate	40.05392	16.52081	2.424452	0.0171

Source: Research data, 2021

Based on the table above, the panel data linear regression equation model for this study can be written as follows:

Sharia Stock Indeks =  $-19.33292 + 2.821253X_1 - 6.976889X_2 - 51.31665X_3 + 40.05392X_4$ 

#### 4.7 Discussion

Based on the research results, it can be explained that the variable exchange rate, inflation rate, interest rate and central bank sharia certificate simultaneously have a significant effect on the sharia stock index. This can be seen from the results of the F test where the calculated F value is greater than the F table value (F count = 47.86140 > F table = 2.44). Then the results of the study can be explained partially, where the exchange rate variable and inflation rate variable have no effect on the sharia stock index, this can be seen from the t-count value which is smaller than t-table (1.022 and 0.53 <1.65). The results of the research on the magnitude of the influence of the independent variable on the dependent variable can be explained that the adjusted R-square value of the coefficient of determination is 0.91, this can mean that 91% of the variation in share prices of Islamic issuers listed on ISSI can be explained by the exchange rate, inflation rate, interest rate and central bank sharia certificate, while the remaining 9% (100% - 91%) is explained by other variables outside of this study.

The results of this study are in line with research conducted by Moh Syaiful A and Adni Dwi A (2020), Octavia Setyani (2017), Ana Hasanah, Noor Shodiq A, and Abdul Wahid M (2019) who found that the exchange rate and inflation rate are partially has an effect on the share price of sharia issuers registered on ISSI. This is in line with the theory put forward by Tandelelin (2010) which reveals that exchange rates and inflation rates are related to fluctuations in the exchange rate of the domestic currency and the value of other countries' currencies. The results of this study are also in line with the theory put forward by W. Andrew (2019) that the exchange rate and inflation rate have no effect on stock prices, because investors pay more attention to what steps have been taken by Bank Indonesia together with the government in dealing with the weakening of the exchange rate, and suppressing the inflation rate in Indonesia.

### 5. CONCLUSION

The results of the study simultaneously exchange rates, inflation rates, interest rates and central bank sharia certificates have a significant effect on the sharia stock index. Partially the variable interest rate and bank certificates of Indonesia have significant influence on the sharia stock index while the exchange rate and inflation rate variables have no effect on the sharia stock index.

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