

THE EFFECT OF EXCHANGE RATE ON STOCK MARKET INDICES: EVIDENCE FROM JAKARTA ISLAMIC INDEX

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ABSTRACT

The purpose of this study was to determine the effect of the Exchange Rate on the Stock market indices on the Jakarta Islamic Index (JII). This study takes all time series data including Exchange Rate and Stock market indices on the Jakarta Islamic Index (JII) in 2012 - 2021. The data analysis in this study is Multiple Linear Regression analysis. The results showed that the Exchange Rate variable had a significant effect on the Jakarta Islamic Index (JII) Stock market indices. The exchange rate has a unidirectional relationship with the JII Stock market indices, which means that if the exchange rate rises, the JII stock market indices also increases.

Keywords: Exchange Rate, Stock Market Indices, Jakarta Islamic Index

INTRODUCTION

The capital market has an important role for the economy of a country because this capital market performs two functions, namely first as a means for business funding or as a means for companies to obtain funds from the investor community. Funds obtained from the capital market can be used for business development, expansion, additional working capital and others. The two capital markets are a means for the public to invest in financial instruments such as stocks, bonds, mutual funds and others.

The Capital Market is a market for various long-term financial instruments that can be traded, both debt securities (bonds), equities (stocks), mutual funds, derivative instruments and other instruments. Thus, the capital market facilitates various facilities and infrastructure for buying and selling activities and other related activities (Martalena and Malinda, 2011).

The stock market indices is an indicator that shows the current stock price movement. The index serves as an indicator of market trends, meaning that the movement of the index describes market conditions at a time, whether the market is active or sluggish. The securities market

serves to help allocate capital among the household, corporate and government sectors as well as provide various options for investors who want to exchange or trade securities easily, quickly and efficiently. While the stock market indices itself is influenced by the risk of share ownership. Component-

The components of risk have been traditionally categorized into several groups: business risk, interest rate risk, market risk, liquidity risk, and financial risk. All components of risk are systematic risk (systematic risk) determined by oxygen or by market forces and unsystematic risk that cannot be predicted (unique) or by non-market forces.

Macroeconomic variables The exchange rate (exchange rate) is one of the factors that affect JII. The exchange rate (exchange rate) is a record of the market price of the domestic currency in terms of the price of the domestic currency or its reciprocal, that is, the price of the domestic currency in terms of foreign currency prices. The decline in the foreign exchange rate will have a negative impact on companies that always produce imported goods. Then this will have an impact on

stock prices to fall or fall in the capital market.

The Jakarta Islamic Index (JII) is a sharia stock index that was first launched on the Indonesian capital market on July 3, 2000. The JII's constituents only consist of the 30 most liquid sharia stocks listed on the IDX. Similar to ISSI, the review of sharia shares that are JII's constituents is carried out twice a year, May and November, following the DES review schedule by OJK.

The Jakarta Islamic Index 70 (JII 70 Index) is a sharia stock index launched by the IDX on May 17, 2018. The JII 70 constituents only consist of the 70 most liquid sharia stocks listed on the IDX. Similar to ISSI, the review of sharia shares that are JII's constituents is carried out twice a year, May and November, following the DES review schedule by OJK.

The relationship between the exchange rate and stock prices is that changes in a macroeconomic variable have a different impact on various types of stocks, namely a stock can be positively impacted while other shares can be negatively affected by an increase in the exchange rate. A sharp increase in the US Dollar Exchange Rate against the Rupiah will have a negative impact on issuers who have debts in US Dollars while the issuer's products are sold locally. Meanwhile, issuers with an export market orientation will receive a positive impact from the increase in the US Dollar Exchange Rate. So that it can be interpreted that the share price of issuers that are negatively affected will experience a decline in the stock exchange and issuers who are positively affected will experience an increase in their share prices (Samsul, 2006).

Research conducted by Yolanda (2019), shows that the exchange rate has an effect on the Jakarta Islamic Index (JII) stock market indices. According to Pradika (2018), it shows that the exchange rate has an effect on the Jakarta Islamic Index (JII). Meanwhile, according to Sanjaya and Nila (2018), it shows that the exchange rate has

a significant effect on the Jakarta Islamic Index (JII). Based on this, the purpose of this study is to determine the effect of the exchange rate on the JII stock market indices

THEORETICAL BASIS

Exchange Rate

According to Sukirno (2011), the currency exchange rate is one of the most important values in an open economy, given its huge impact on the current account balance and other macroeconomic variables. Measurement of exchange rates based on the comparison of the exchange rates of two currencies (Nopirin, 2012).

Stock Market Indices

The stock market indices is a record of changes and movements in stock prices since they were first circulated until a certain time. The presentation of the stock market indices is based on an agreed base number unit. The stock market indices is an indicator for investors to make investment decisions (Sunariyah, 2011).

HYPOTHESES

Exchange rates have a different impact on the stock market indices. When the rupiah depreciates, the money market will generate more profits than the stock market. Investors will prefer to invest in the money market and this has an impact on stock prices declining. The depreciation of the rupiah currency can also have an impact on increasing the income of export-oriented companies. The increase in the company's income resulted in an increase in the stock market indices. So it can be concluded that the exchange rate affects the stock market indices. The research of Sanjaya and Nila (2018), Pradika (2018) and Yolanda (2019) proves empirically that the exchange rate has a significant effect on the stock market indices.

H: Exchange rates affect on stock market indices

METHOD

The data used in this study is secondary data, namely exchange rate data and the JII stock market indices in 2012 - 2021. The method used in modeling the relationship between the exchange rate and the stock market indices is multiple linear regression analysis. The following is the regression model proposed in this study.

$$Y = a + bX + e$$

Description:

X = exchange rate

Y = stock market indices

a = constanta

b = predictor coefficients of regression equation

RESULTS AND DISCUSSION

Descriptive Statistics

The results of the descriptive statistics of the research variables are presented in Table 1.

Table 1. The Descriptive Statistics of Variable

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Exchange Rate	120	9.044,00	16.447,84	12.999,6360	1.748,00387
Stock Market Indices	120	13.847,554,900	23.760,391,400	19.403,839,509,58	21.759,156,148,31

The exchange rate has a minimum value of Rp. 9,044.00 per US Dollars and a maximum value of Rp. 16,447.84 per US

Dollars. These results indicate that the

Exchange Rate affects the Stock market indices on the Jakarta Islamic Index listed on the Indonesia Stock Exchange in 2012-

2021 which is the sample in this study ranging from Rp. 9,044.00 per US Dollars to Rp. 16,447.84 per US Dollars with an average of Rp. 12,999,6360 per US Dollars.

The Stock market indices on the Jakarta Islamic Index has a minimum value of Rp. 13,847,554,900 and a maximum value of Rp. 23,760,391,400. The results

show that the movement of the Stock market indices in the Jakarta Islamic Index listed on the Indonesia Stock Exchange in 2012-2021 is influenced by the Exchange

Rate variable that is the sample in this study, which ranges from Rp. 13,847,554,900 to Rp. 23,760,391,400 with an average of Rp. 19,403,839,509.58.

Normality Test

Normality test on residuals is one of the assumptions that must be met in linear regression analysis. The table below is the results of the normality test using the Kolmogorov-Smirnov test.

Table 2. The Normality Test of Residual

	Unstandardized Residual
Kolmogorov-Smirnov Z	0,471
Asymp. Sig. (2-tailed)	0,980

Based on Table 2, the results of the Kolmogorov-Smirnov test above show that the significant value is $0,980 > 0,05$. These results show that the residuals are normally distributed.

Heteroscedasticity Test

A regression model must have a homogeneous residual variance. If this is not met, there will be heteroscedasticity.

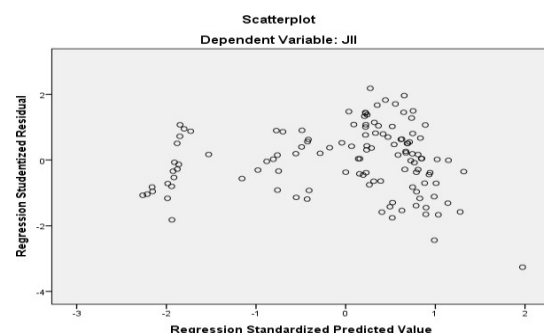


Figure 1. Scatterplot Standardized Predicted Value vs Standardized Residual

Based on the scatterplot graph, it can be seen that the points spread randomly above and below the number 0 on the Y axis. It can be concluded that by using the graphical analysis method in the regression model, it is stated that there is no heteroscedasticity.

Autocorrelation Test

The following are the results of the autocorrelation test using Durbin Watson statistics.

Table 3. The Results of Autocorrelation Test

Model	R	R Square	Durbin-Watson
1	0,537	0,288	0,338

Based on the results of the autocorrelation test in Table 3 above, it

shows that the Durbin-Watson (DW) value is 0,338. Meanwhile, from the value of the Durbin-Watson table at a significant level = 5% for the number of Independent variables = 1 (k = 1) and the number of observations N = 120, the Durbin-Watson table will obtain a lower limit value (dL) = 1,6853 and a value of 1,6853. Upper limit (dU) = 1,7189 with the result $0 < 0,338 < 1,6853$ ($0 < d < dl$). So in this analysis there is no positive autocorrelation, so it can be concluded that there is no autocorrelation.

Multiple Linear Regression Analysis

The following is a multiple linear regression analysis to model the relationship between the exchange rate and the stock market indices at JII, the following results are obtained.

Table 4. The Constanta and The Coefficient of Regression Equation

Model	Unstandardized Coefficients	
	B	Std. Error
(constant)	1.071.401,866	126.786,788
Exchange Rate	66,847	9,667

Based on the results of the table above, the regression equation is obtained as follows.

$$Y = 1.071.401,866 + 66,847 X + e$$

Description:

X = exchange rate

Y = stock market indices

The constant value is 1.071.401,866, which means that if the Exchange Rate has a value of 0, it is predicted that the Jakarta Islamic Index Stock market indices will be 1.071.401,866. The regression coefficient for the Exchange Rate is 66,847 which means that it shows a direction that is related in the same direction to the dependent variable, it can be interpreted that if the Exchange Rate increases by one unit, the Jakarta Islamic Index Stock market indices has increased by 66,847.

Hypothesis Test

The results of partially testing the effect of the independent variables

consisting of the Exchange Rate on the Stock market indices on the Jakarta Islamic Index are as follows:

Table 5. The t-test

Model	t	Sig.
(constant)	8,450	0,000
Exchange Rate	6,915	0,000

Based on the results of data processing in Table 5 above, the t-value is 6,915 and the t-table is 1,98027. The t value $> t$ table ($6,915 > 1,98027$) and the significantly smaller value is $0,000 < 0,05$, then the hypothesis is accepted. So it can be concluded that the Exchange Rate variable has a significant effect on the Stock market indices on the Jakarta Islamic Index.

This study shows empirical evidence that there is a unidirectional and significant relationship between the exchange rate and the stock market indices at JII. This proves that in 2012 to 2021, when the exchange rate decreases it will be followed by a decrease in the stock market indices, and vice versa when the exchange rate increases it will be followed by an increase in the stock market indices. The value of the Rupiah when it depreciates results in an increase in profits on the money market. Investors will prefer to invest in the money market than the stock market. Decreased investor interest in the stock market resulted in a decline in the stock market indices. The results of this study are in line with the research of Sanjaya and Nila (2018), Pradika (2018) and Yolanda (2019).

From Table 3 above, the magnitude of R Square is 0.288 or 28.8%. This means that 28.8% of the Stock market indices in the Jakarta Islamic Index is influenced by the independent variable, namely the Exchange Rate. While the remaining 71.2% is influenced by other variables or other reasons outside the model.

CONCLUSION

This study aims to prove the effect of the exchange rate on the stock market indices in the Jakarta Islamic Index (JII). By using data from 2012 to 2021, the results

show that the exchange rate has a significant effect on the stock market indices at JII. There is also evidence that there is a unidirectional relationship between the exchange rate and the JII stock market indices.

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