ANALYSIS OF THE INFLUENCE OF EXCHANGE RATE, INTEREST RATE, INFLATION AND MONEY SUPPLY (M2) ON INDONESIAN SYARIAH STOCK INDEX (ISSI) (EMPIRICAL STUDY 2006 - 2019)

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Abstract

This study aims to determine and analyze the influence of external factors in this case macroeconomic factors (exchange rate, interest rate, inflation, and money supply) on the Islamic stock price index on the Indonesia Stock Exchange from 2006 to 2019 during 15 years, both short-term equilibrium relationship and long-term equilibrium relationship. The results of research that have been carried out with several stages of statistical testing conclude that there has been a long-term equilibrium relationship where the partial relationship between the exchange rate, interest rate, money supply, and inflation in the long term affects the stock exchange, but the interest rate shows an unrelated relationship. significant and does not affect the stock exchange. Meanwhile, the short-term equilibrium relationship results from the cointegration test and error correction model test can be concluded that there is no short-term equilibrium relationship exchange rate, money supply, interest rate, and inflation on the stock exchange, meaning that the exchange rate, interest rate, money supply, and inflation in the short term does not affect the stock exchange.

Keywords: exchange rate, interest rate, inflation, money supply, stock exchange

INTRODUCTIONS

The rapid development of the capital market today attracts the attention of potential investors and capital owners to invest in the capital market. They need to obtain some information related to the dynamics of stock prices to be able to make decisions about which company shares are worth owning. Reliable information about the company's financial performance, company management, macroeconomic conditions, and other relevant information is needed to accurately value stocks. This information can help potential investors assess the stock's ability to provide the desired returns. An accurate stock valuation can minimize risk as well as help investors get a fair profit considering that stock investment is a high-risk type of investment even though it promises relatively large profits. This means that investing in stocks promises big returns as well as risks. Therefore, the company is trying to develop and show better performance in the eyes of investors.

The form of company management performance expected by investors can be seen from its financial statements. Financial statements are a very crucial component in a business. The function of financial statements is to describe the condition of the company, evaluate performance, reference decision-making, and describe the credibility of the company. Financial reports are used for internal and external parties. Where the company's main focus on financial statements for external parties is investors and creditors.

For an investor, financial statements are an important aspect because they contain information about the performance of a company. In addition, the function of financial statements for investors is as a benchmark for making decisions whether a company is eligible to receive investment and how capable a company is in managing the investment funds provided to generate profits for potential investors.

Indonesia, one of the largest Muslim countries in the world, can become a syariah investment capital market, especially the Islamic finance industry. Syariah investment in the capital market has a role in developing the market share of the Islamic finance industry in Indonesia. One of the indicators for measuring the performance of the Islamic capital market in Indonesia is the Jakarta Islamic Index (JII) where there are 30 syariah stocks whose operations are based on syariah principles. According to[1], there are important factors that can influence the development of the syariah index, namely both microeconomic variables and macroeconomic variables as well as monetary policy such as Bank Indonesia Syariah Certificates, inflation, money supply (JUB), exchange rates and others. Meanwhile, internal factors that can affect the development of the [1] include national economic conditions, political conditions, regulations imposed by the government, and others. In this study, much attention will be paid to the value of fundamentals and macroeconomic variables of the Islamic stock issuers themselves[2].

The company's accounting information or financial statements can be used by investors to determine the fundamental value of the syariah shares to be analyzed and to find out their intrinsic value. From the information presented by the company to the public, it can affect stock prices in the capital market and what factors or variables are indicators of changes in syariah share prices in the capital market, so that the company has control, to increase the value of the company through increasing the value of shares outstanding in the capital market. capital market[3].

In addition to fundamental factors, macroeconomic conditions as external factors can also affect the performance and changes in the company's stock price. Many researchers believe that several macroeconomic variables, such as high-interest rates, high inflation rates, and high exchange rate fluctuations cause companies to experience financial problems that can reduce their financial performance, thereby lowering the valuation of the company.

The capital market in Indonesia is handled by the Indonesia Stock Exchange (IDX) is an institution in Indonesia that organizes and provides a system, as well as a means to bring together, offers to buy and sell securities of other parties with the aim of trading stocks between them (Wikipedia, Indonesia Stock Exchange). One of the stock market indexes used by the Indonesia Stock Exchange (IDX) is the Indonesia Composite Index, ICI, or IDX Composite (IHSG) which is used as an indicator of stock price movements. The Composite Stock Price Index in IDX always fluctuates, this depends on the strength of supply and demand.

The fluctuation of the Composite Stock Price Index itself is strongly influenced by macroeconomic factors that occur in a country, several macroeconomic factors that greatly affect the capital market in Indonesia, namely the money supply (M2), exchange rates, interest rates, and the level of inflation. In the following, we present data on changes in some of these macroeconomic factors in the last 15 years.

T a b l e 1

Pre-Survey Results Regarding Purchase Decision Process

YEARS	STOCK	INTEREST RATE	INFLATION	MONEY SUPPLY	EXCHANGE RATE
2006	2,352	11,86	14,0874	1.382.493	9.098,1
2007	2,2	10,80	11,2586	1.649.662	9.348,7
2008	961	7,84	18,1498	1.895.839	11.229
2009	1.930	8,39	8,27475	2.141.384	9.454,6
2010	5.300	7,66	15,2643	2.347.807	9.024,7
2011	4.525	6,40	7,46594	2.729.538	9.048
2012	5,700	5,87	3,75388	3.207.908	9.642
2013	5,200	8,19	4,96599	3.616.049	12.085
2014	4,865	9,34	5,44317	4.076.670	12.433
2015	3,650	9,09	3,98024	4.548.800	13.831
2016	2,310	7,33	2,43892	5.004.977	13.397
2017	2,960	6,73	4,29268	5.419.165	13.548
2018	1.980	7,39	3,81974	5.760.046	14.493
2019	3.150	7,46	1,60454	6.136.552	14.013

As can be seen in the table above, the occurrence of unstable exchange rate fluctuations will certainly hurt stock trading in the capital market, for investors who do not want to take risks, will tend to withdraw capital so that capital outflows can occur and this will result in a decrease in stock prices. As a result of this, it will increase operating costs and will automatically result in a decrease in the price of the shares offered. For example, the weakening of the rupiah exchange rate against the US dollar often weakens stock prices in the Jakarta Composite Index (JCI). Inflation is one of the macroeconomic factors that affect conditions in the capital market. The inflation forecast that will be achieved in the future is a concern for investors. Rising inflation will cause a company's consumption, production, and fuel costs to increase, this, in turn, can reduce profits for a company and also reduce profits for investors who will invest, therefore investors will tend to wait until inflation conditions are more stable. investor losses are not too big. Inflation is also a determinant of the increase in the BI Rate, with an increase in the BI Rate, investors tend to withdraw their funds from the capital market and will affect stock prices.

The amount of money supply greatly affects the state of the economy. Money supply out of control can cause various bad effects for the economy as a whole. Excessive money supply can cause inflation and disrupt economic growth. In addition, if the money supply is low, it will lead to economic sluggishness. So that this will have an impact on the prosperity of the community which will continuously experience a decline [4]. The high money supply in the community will not

necessarily increase the stock price index on the capital market, the high-interest expense on capitalized deposits, and the expansion of several components of net claims to the government, especially payments in the framework of the guarantee program for bank obligations and payment of bank recapitalization bonds coupons resulted in the money supply. The real value of the community does not increase so that people do not have excess money to enter the capital market [5, 6] So that the variable amount of money supply partially has a positive and significant correlation to the Stock Price Index of the Trading Sector. This illustrates that the movement up and down the value of the Money Supply affects the movement of the up and down movement of the Stock Price Index of the Trading Sector.

Interest rates have a very strong influence on currency and business prices. For the effect of interest rates on currency price movements, we can read about the effect of interest rates on the forex market. Bank Indonesia (BI) has the authority to do this by raising or lowering interest rates. Bank Indonesia as the central bank of Indonesia has a policy of increasing or decreasing interest rates to regulate the rate of economic growth in Indonesia. When interest rates are raised, a business will experience difficulties and be more vulnerable. This is because these businesses can no longer borrow money at cheap and reasonable rates. And this will affect the amount of profit that will be obtained, especially for those who have a lot of debt.

The company's stock price may experience a decline or correction when the government through BI raises interest rates. This is because companies that have a lot of debt will increase their company expenses which will ultimately reduce the profits they have earned. And the company's increased burden is caused by the increasing amount of debt that must be paid by the company due to the increase in interest rates. So we can conclude that interest rates have no effect on stock prices, but only affect currency and business prices. The business referred to in it is the operating activities of the company/issuer that has been listed on the Indonesia Stock Exchange (IDX).

Thus, the macroeconomic environment that occurs, such as changes in interest rates for savings and time deposits, foreign exchange rates, inflation, as well as various economic regulations and deregulations issued by the government also affect price fluctuations and trading volume in the capital market. The capital market is very synonymous with the JCI (Joint Stock Price Index).

Based on the description of the background of this study, the purpose of this study is to provide a detailed explanation of the internal and external effects of a country's economy on the Islamic stock price index on the Indonesia Stock Exchange. Mainly macroeconomic factors in the form of inflation on stock prices and interest rates on stock prices. Starting from higher prices of goods and services, consumers can only buy fewer goods, company revenues and profits decline, and the economy slows down. The company will make efficient because interest increases and profits decrease. Stock prices tend to fall when inflation increases. While the micro-economic factors in the form of company profitability (ROE) to stock prices.

LITERATURE REVIEW

Indonesian Syariah Stock Index (ISSI)

The Indonesian Syariah Stock Index (ISSI) which was launched on 12 May 2011 is a composite index of syariah shares listed on the IDX. ISSI is an indicator of the performance of the Indonesian Islamic stock market. Syariah shares are shares of companies whose business activities do not conflict with syariah principles. OJK and IDX have several criteria to determine whether or not a stock is a syariahh. According to the IDX website, there are two types of syariah shares recognized in the

Indonesian capital market. First, shares that are declared to meet the selection criteria for syariah shares based on OJK regulations Number 35/POJK.04/2017 concerning Criteria and Issuance of Syariah Securities Lists. The second is shares that are listed as syariah shares by issuers or syariah public companies based on OJK regulation no. 17/POJK.04/2015. According to the regulator, Islamic stocks include issuers that do not carry out activities and issuers that meet financial ratios.

Inflation

[7] states that inflation is a general and continuous increase in the price of goods. Meanwhile, according to [8] states that inflation is the tendency of prices to rise continuously. Furthermore, [9] states that an event that shows an increase in the price level in general and takes place continuously. [10] states that Inflation is a tendency to increase the price of goods and services in general and continuously. Meanwhile, Bank Indonesia defines Inflation, namely the general and continuous increase in prices. An increase in one or two goods alone cannot be called inflation unless the increase extends (or results in an increase in the price) of other goods. The opposite of inflation is called deflation[11].

IDR/USD Exchange Rate

The exchange rate itself can be interpreted as the price of a country's currency (domestic currency) which is converted in the form of a foreign country's currency. The stable growth of currency values shows that the country has relatively good or stable economic conditions. [12] an exchange rate is defined as the amount of one currency that can be exchanged per unit of another currency, or the price of one currency in items of another currency. So it can be concluded that the currency exchange rate is the price of the currency value of a country against another country, and is carried out for exchange transactions used in conducting trade transactions, the exchange rate between two countries where the exchange rate is determined by the supply and demand of the two countries. currency. According to [13], she found that the exchange rate has a positive effect on stock prices, meaning that if there is an appreciation of the rupiah exchange rate against the USD, then import spending will increase and production costs will decrease as well as increase company profits and ultimately the stock price will increase.

Money Supply

Money supply circulating in the community is actually controlled by the central bank, the Indonesian Bank. However, the amount of money circulating in the community is not only determined by the policies of the central bank, but also by household actors (who hold money) and banks (where money is stored). Money circulating in the community in the broad sense symbolized by M2 or L2 is defined as money in the broad sense or liquid funds that cannot be used as a medium of exchange for every purchase, namely the money supply including M1 and also savings accounts in banks and similar assets including deposits in a savings account at a bank, money market mutual funds, funds in the capital market. So M2 is M1 plus quasi money.Several macroeconomic factors affect the money supply, including the sale of shares, one of which is the composite stock price index in market capital. This was stated by JM Keynes (economist) who stated that money is a form of wealth held by the public other than in the form of savings in banks, stocks, or other securities so that there is a demand for money.

Interest Rates

According to[14]), interest rates are expressed as a percentage of the principal per unit of time. Interest is a measure of the price of resources used by debtors that must be paid to creditors. [15] opinion about the interest rate is explained through a theory known as liquidity preferences theory. This theory explains that the interest rate determines whether or not there will be a lot of demand for liquid funds in the community. The demand for money has a negative relationship with the interest rate. The higher the interest rate, the lower the number of real money balances demanded. [15] theory argues that the interest rate is determined by the demand and supply of money. According to this theory, there are three motives why people hold cash, namely transaction motives, watchfulness, and speculation. These three motives are the source of the demand for money which is named Liquidity preference. This preference or desire to remain liquid is what makes people willing to pay a certain price for the use of money. [16] theory, in particular, emphasizes the direct relationship between people's willingness to pay the price of money (the interest rate) and elements of demand for money for speculation purposes [17]

The Framework of Research in research is as follows:
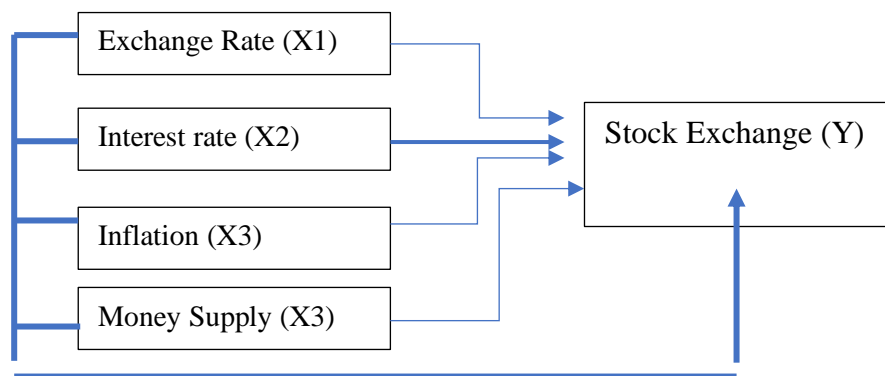
Fig. 2.1 : Framework of Research

Hypotheses
Based on the description of the literature review above, the research hypotheses to be carried out in this study are as follows:

Equilibrium Relationship Test:
H1.1: There is a long-term equilibrium relationship independent variable on the dependen variable
H1.2: There is a Short-term Equilibrium Relationship independent variable on the dependent variable

Simultaneous Test (Model Test) :
H_0 : No There is a simultaneous significant effect between exchange rate, interest rate, inflation and money
         supply on the Indonesian Syariah Stock Index
H_1 : There is a simultaneous significant effect between the exchange rate interest rate, inflation and money supply
         to the Indonesian Syariah Stock Index

Partial Test :

H1 : Inflation has an effect on Syariah Stocks
H2: Exchange Rate has an influence on Syariah Stocks
H3 : MONEY SUPPLY has an effect on Syariah Stocks
H4: Interest rates have no significant effect on Syariah shares

RESEARCH METHODOLOGY.

The data used in this study uses secondary time series data from 2006 to 2019 taken from several sources. This study aims to determine whether the independent variables (exchange rate, interest rate, inflation, and money supply) affect the dependent variable (Composite Stock) both sort-term equilibrium relationship and long-term relationship.

So to be able to find out the results of this study, it will be carried out using several statistical tests. To find out whether there has been a long-term equilibrium relationship between the variables, the analytical method in this study uses cointegration analysis by looking at the stationary residual. This cointegration method is used to explain the *long-term equilibrium relationship* between economic variables which are independent variables and the dependent variable in the form of the same trend direction of the non-stationary variables used in the model so that the problem of phenomena *is spurious regression* can be overcome and does not occur. Meanwhile, to find out whether there has been a *short-term equilibrium relationship*, the analytical method that will be used is the *error correction method*-ECM. The ECM method that will be used uses Engle-Granger, this method is used to analyze multivariate time series data that is not stationary but cointegration occurs between the variables used in the research model in the short term. This method will also be used to see how much influence the exchange rate, money supply, inflation, and interest rate have on the Composite Stock in this study.

Before testing the *short-term equilibrium relationship* and *long-term equilibrium relationship,* all data and research models will first be carried out in several stages of testing so that the results of the research carried out get BLUE results (*Best, Linear, Unbiased*, and *Estimator*). The stages of statistical testing carried out are:

The first stage will be a normality test to determine whether all data and research models are normal. The second stage will be a statistical test. Stationary test to find out whether the data is stable in the long-term at the level of variance that is fluctuating so that there is no difference in the range of fluctuations in the data in the event of spurious *regression*. variable. The third stage is to test the model selection criteria (*goodness of fit test*). There are several tests carried out, namely the partial test of each independent variable (Exchange rate, interest rate, inflation, and money supply) on the dependent variable (Stock Exchange), simultaneous test, correlation test, and AIC test. The fourth stage is the classical assumption test. Three tests will be carried out, namely the heteroscedastic test, auto-correlation, and multicolinear test. So to answer and prove the research objectives above, as well as to see the coefficients of each independent variable used in the research model, namely through the multiple regression equation as follows:

$$Stock\_Exchange_t = \beta_1 + \beta_2 ER_2 + \beta_3 IR_3 + \beta_4 MS_4 + \beta_5 Inf_5 + u_i \quad \ldots\ldots\ldots 3.1$$

Y_t : Stock Exchange
ER_{2t} : Exchange Rate
IR_{3t} : Interest Rate
MS_{4t} : Money Supply
Inf_{5t} : Inflation
$\beta_2 .. \beta_5$: Koefisien regression
u_i : disturbance term

RESEARCH ANALYSIS AND RESULTS

Statistical Test Against Research Data.

Normal DataTest. The results of the normalization test that have been carried out using themethod *Jarque-Bera* using the E-Views software are as follows:

Table 2

Normality Test

No.	Variabel	Result	Prob.	Information
	Normalitas Test Terhadap Variabel-variabel Model			
1	Stock	Normal	0,215995	Prob. Grather than α
2	Exchange Rate	Normal	1,650903	Prob. Grather than α
3	Interest Rate	Normal	1,745890	Prob. Grather than α
4	Money Supply	Normal	0,564119	Prob. Grather than α
5	Inflation	Normal	1,873253	Prob. Grather than α

Source : Output Eviews 10.0 [18]

Estimasi Research Mode (Long-Term Relationship)

The next step is to estimate the research model. The estimation results from the research model that have been carried out with E-Views before the cointegration test and error correction model (ECM) test are an illustration of the long-term equilibrium relation to the syariah stock index as follows

Table 3

Research Model Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MS	0.002690	0.000996	2.701019	0.0244
IR	-129.5288	304.8457	-0.424900	0.6809
INF	377.3213	142.3339	2.650960	0.0264
ER	-1.496794	0.543961	-2.751655	0.0224
C	7094.341	3581.545	1.980805	0.0790
R-squared	0.620515			
Adjusted R-squared	0.451855			
F-statistic	3.679084			
Prob(F-statistic)	0.048449			
Akaike info criterion	17.54917			
Schwarz criterion	17.77740			
Hannan-Quinn criterion	17.52804			
Durbin-Watson stat	2.231220			

Sumber : Output Eviews 10.0 [18]

From the results of data processing with E-views above, the research model obtained by the regression equation is as follows:

*STOCK_EXCHANGE = 7094.34076743 + 0.00268990544756*MS - 129.528837006*IR + 377.321325966*INF - 1.49679391336*ER ………………….. 4.1*

Equation 4.1 above explains the long-term equilibrium relationship between money supply, interest rate, inflation, and exchange rate on the composite. From

these results, it can be seen that money supply and inflation have a positive relationship (directly proportional) to the composite stock, meaning that if the money supply and inflation increase, the composite stock will increase or strengthen, on the contrary, if the money supply and economic growth decrease, the composite stock will weaken. While the exchange rate and interest rate factors on the contrary have a negative relationship (inversely proportional) to the composite stock, meaning that if the exchange rate experiences depreciation and the interest rate decreases, the composite stock will increase or strengthen, but on the contrary, if the exchange rate experiences appreciation and the interest rate increases, the composite stock will increase. stock will go down or weaken. From the estimation results above, it can also be seen that the partial relationship between the independent variables, namely the exchange rate, money supply, and inflation on the dependent variable, namely the composite stock, shows a significant and influential relationship in the long term relationship, this can be seen from the value of Prob. (probability) all independent variables are smaller than the alpha of 0.05 (5%). Prob. exchange rate of 0.0224, Prob. the money supply of 0.0244 and Prob. inflation of 0.0264. However, the interest rate shows an insignificant relationship and does not affect the stock exchange, this can be seen from the prob value. 0.6809 is greater than 0.05.

Classic Asumsion Test

Heteroskedasticity Test

The heteroscedastic test used in this study is to use the Glejser test. The output results with this white test are as follows:
Heteroskedasticity Test : Glejser

F-statistic	1.668056	Prob. F(4.9)	0.2403
Obs*R-squqred	5.960299	Prob. Chi-Square(4)	0.2021
Scaled explained SS	3.053863	Prob. Chi-Square(4)	0.5489

Where the results of the Glejser test show the Chi-Square Probability of Obs*R-squared is 0.2021 which is greater than = 5%, this means that this research model does not contain heteroscedasticity or is homoscedastic.

Autocorrelation

Test The statistical test used for this autocorrelation test is the Durbin-Watson test. The result of this Durbin-Watson test using Eviews is 2.231220 this shows accept H_0, this means there is no autocorrelation. Or you can also use the Breusch-Godfrey Serial Correlation LM Test with the following results:
Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.511460	Prob. F(2,7)	0.6204
Obs*R-squqred	1.784996	Prob. Chi-Square(2)	0.4096

Where the results of Prob.Obs*R-squared above are 0.4096, which is greater than 0.05 (alpha) meaning that there is no problem with Correlation

Table 4

Multicolinear Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	12827461	96.28551	NA
MS	9.92E-07	112.5749	7.93423
IR	92930.90	48.30466	1.767843
INF	20258.93	12.35656	3.835331
ER	0.295894	301.9391	9.509382

From the results of the multicollinear test with variance inflation factors (VIF) above, it shows that all the data variables used in the study do not have multicollinear problems, this can be proven by looking at the centered VIF below 10.

Stationer Test

After estimating the research model above, the next step is to do a stationary test before the aim is to identify long and short-term relationships between the variables used in the model. The results of the stationary test of all the variables used are as follows:

Table 5

Unit Root Test Results with Augmented Dikey Fuller

Deskripsi	Diferensiasi	Order Integrasi		
	Level	1st difference	2nd difference	
	p-value	p-value	p-value	
Composite Stock	0.1146	0.1195	0.0338	I(1)
Exchange Rate	0.0217	0.0017	---	I(1)
Interest Rate	0.0791	0.1058	0.0397	I(1)
Money Supply	0.9490	0.5028	0.0470	I(1)
Inflation	0.7945	0.0001	0.000	

Sumber : Output Eviews 10.0 (yang diolah)

From the results of the stationary test above, it shows that almost all the variables used in the research model are not stationary. This can be seen from the p-value of all variables greater than 0.05. So we need to change the data to be stationary, namely through differentiation to the first level (1st difference), second level (2nd difference) and so on. which is done through the unit(*root testsunit root test*) using the Augmented Dickey Fuller (ADF) test.

Cointegration Test

This cointegration test aims to see whether there has been an equilibrium relationship between the independent variable and the dependent variable in the model from short to long term, as well as this test to determine whether there is a *spurious regression* or not. The cointegration test is carried out by looking at the residuals after the first estimate is made with the results as follows:

Table 6

Cointegration Test

		t-statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.967289	0.0117
Test critical values	1% level	-4.057910	
	5% level	-3.119910	
	10% level	-2.701103	

it can be seen from the results of the stationary test carried out showing that the residual is stationary at this level, it can be seen from the value of Prob. 0.0117 is smaller than 0.05 which shows that all data variables (stock exchange, exchange rate, interest rate, inflation and money supply) used are mutual cointegration.

Error Correction Model (ECM) Test

After the stationary test and cointegration test above have been carried out, the next step is to find out whether there has been a short-term relationship between the independent variable and the dependent variable, namely conducting an error correction model (ECM) test with the estimated results as follows:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	405.8301	485.9291	0.835163	0.4356
D(MS,2)	-0.018752	0.016187	-1.158500	0.2907
D(IR,2)	-64.69616	324.2678	-0.199515	0.8485
D(INF,2)	121.2141	120.4385	1.006439	0.3531
D(ER)	-0.338281	0.861090	-0.392852	0.7080
ECT(-1)	-0.826246	1.185966	-0.696686	0.5121
R-squared	0.841674			
Adjusted R-squared	0.709735			
F-statistic	6.379275			
Prob(F-statistic)	0.021557			

From the estimation results above, it shows that the residual coefficient (ect(-1)) is negative at -0.826246 but the Prob value. the residual is 0.5121 which is greater than 0.05, this shows that the residual is not significant. This means that in the period between 2006 and 2019 in this study, there was no short-term equilibrium relationship between the stock exchange, exchange rate, interest rate, inflation, and money supply on the stock exchange.

CONCLUSIONS

The results of the research that have been carried out above with several stages of statistical testing to answer the effect of the exchange rate, interest rate, inflation, and money supply on the stock exchange during the period 2006 to 2019 both short-term equilibrium relationship and long-term equilibrium relationship It can be concluded that there has been a long-term equilibrium relationship where the partial relationship of the exchange rate, interest rate, money supply, and inflation in the long term affects the stock exchange, but the interest rate shows an insignificant relationship and has no effect on the stock exchange. Meanwhile, from the results of the cointegration test and the error correction model test, it can be concluded that there is no short-term equilibrium relationship exchange rate, money supply, interest rate, and inflation on the stock exchange, meaning that the exchange rate, interest rate, money supply, and inflation in the short term do not influence the stock exchange.

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