The Effect of Inflation, Interest Rates, IDR / USD Exchange Rates and Money Supply on The LQ45 Stock Price Index on The Indonesia Stock Exchange for The Period 2016 – 2020

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Abstract:
This study aims to determine the effect of Indonesian macroeconomic factors on the LQ45 stock index of the Indonesia Stock Exchange: inflation, interest rates, IDR/USD exchange rate, and the money supply. The survey period covers the period from 2016 to 2020. The subject of this research is the LQ45 stock index of the Indonesia Stock Exchange. The data used is secondary data. The data analysis method used is multiple regression analysis with a significance level of 0.05 or 5%. The results of this study show that inflation has a positive and insignificant effect on the LQ45 stock price index in 2016-2020. The results of the interest rate variable show that interest rates have a positive and insignificant effect on the 2016-2020 LQ45 stock price index. The results of the exchange rate variable (X3) show that the IDR/USD exchange rate has a negative and significant effect on the 2016-2020 LQ45 Stock Price Index. The results of the Amount of Money Supply (JUB) variable show that the Money Supply (JUB) has a positive and insignificant effect on the LQ45 stock price index 2016-2020.
Keywords: *Inflation, Money, LQ45*

INTRODUCTION

Diversified stock investments are investments that are influenced by the macroeconomic conditions of a country. Inflation, for example, can negatively impact purchasing power. The value of currencies fluctuates constantly in the global economy. Increases in the price of goods and services are also common. Inflation may occur as a result of this situation as the purchasing power of the currency decreases. The economy will suffer if inflation rises, which will negatively affect corporate profits and make stock price movements (securities) less competitive. (Nugroho, 2008)

Therefore, government policy in limiting inflation is crucial. Financial markets have an important role in determining interest rates. Interest rates can be used as monetary instruments to influence the flow of money in the economy. The government can increase the interest rate to increase the money supply and decrease the demand for money when the demand for money is very large and the circulation of social currencies is very high. The government, on the other hand, can cut interest rates to help support and shorten economic growth and the industrial sector, to suppress or raise greater output. As production rises, inflation is predicted to fall, profit margins will rise, and the stock market is expected to benefit from this scenario. (Nugroho, 2008)

Stocks are the most popular financial products on the IDX, after the capital market. The IDX stock market is organized into nine categories, each of which is further divided into a price index. Using a predetermined set of parameters, stock indices are calculated to show the price movement of a particular stock over a period of time. LQ45 Index is one of the stock indices on the IDX.

In terms of liquidity, the LQ45 index is the most liquid stock price index for 45 companies with solid fundamentals. Only companies that conform to the evaluation requirements at the time

of evaluation can be included in the LQ45 index, so the list of LQ45 index companies is subject to change.

(Hidayati, 2020) From 11.69 percent in 2016 to -8.95 percent in 2018, the LQ45 stock index decreased, while increasing by around 22.02 percent in 2017. The stock price continued to fall, although the LQ45 index briefly reached an all-time high in January 1132. In contrast, the LQ45 stock index experienced an increase in value by 3.18 percent in 2019. SRI KEHATI, IDX30, JII, and JCI all experienced stock price declines, in addition to the LQ45 index. With a wider margin than the decline in JCI's stock price by

-2.54 percent in 2018, the LQ45 index is expected to decline in 2018. Because it accounts for 70% of the market capitalization and trading in the Indonesian stock market, IHS LQ45 moves similarly to JCI. High interest rates have a direct effect on stock prices, with investors selling their shares on a large scale when interest rates are high. In 2018, the federal funds rate was raised a total of six times. During May-December, the benchmark interest rate jumped 175 basis points to 6% from 4.50%. Bank Indonesia raised interest rates to prevent the rupiah from falling further and to deter short-term equity sales. However, Bank Indonesia's stance has the potential to burden issuers in the long run. High interest rates impact a company's debt, which means huge business costs. This is focused legally for companies with bank debt, which affects their profits and, as a result, their share price. (Hidayati, 2020)

In accordance with previous research, (Sunardi et al., 2017) The increase in JUB, or in other words, on the amount of money available to spend, this is what economists call inflation. An increase in the money supply usually results in an increase in price. As economic conditions around the world deteriorate, so does inflation in Indonesia, making it even more volatile.

Another factor that has an impact on IHS LQ45 besides inflation is the interest rate. Interest rate has a considerable negative impact on the LQ45 stock price index, according to Lingga (2018). While Sanyota and Akbar (2020) found that interest rate has a considerable positive impact on the LQ45 stock index, this is different from the findings according to Lingga (2018). However, in the opinion of Endang, Wahono, and Agus (2018), interest rates have a positive and insignificant impact on IHS LQ45. When Bank Indonesia interest rates (SBI) rise to a sufficiently high level, stock prices fall, according to Hidayat's previous research (1997), which states that the lowest interest rate represented by Bank Indonesia's interest rate (SBI) should be positive. correlated with the rate of return on investment (return). The LQ45 stock price index will rise along with falling interest rates.

Inflation, interest rates, and currency exchange rates all play a role in fluctuations in the LQ45 stock price index. The exchange rate is affected by changes in the value of the US dollar. Uncertainty in currency rates can cause foreign investors to sell their shares because they see future risks. Currencies can be devalued if investors sell a large number of shares. As of 2018, the rupiah depreciated against the US dollar to reach Rp15000, according to official figures. The price movement of LQ45 shares is influenced by these conditions, which have an impact on investment decisions. The LQ45 share price index has shown conflicting findings in previous studies looking at the impact of the rupiah exchange rate. The exchange rate has a strong beneficial impact on the LQ45 stock price index, Sanyota and Akbar (2020) argue. However, the exchange rate has an impact on IHS LQ45, according to Lingga research (2018). (Hidayati, 2020)

The value of the US dollar as a domestic and international currency is reflected in the exchange rate. If foreign demand for rupiah currency decreases due to reduced importance in the national economy, or if public demand for US dollar foreign currency increases due to its global significance, then the rupiah exchange rate will fall. Payment instruments. The rupiah exchange rate, especially the US dollar, is used as a benchmark for currency performance in the global market. In part, the strengthening of the rupiah indicates that the currency market is performing better. This will lead to lower stock prices and more attractive investments in the capital market as a result of the weakening of the local currency.

The LQ45 stock price index is also affected by currency rates and interest rates. Investors need to keep an eye on any changes in the money supply to understand the current economic environment. There is a widely held belief that changes in the money supply and the value of shares are related. There is some preliminary evidence supporting the existence of such a relationship. However, further research has revealed that this correlation is not always synchronized, but it may indicate that future transformations in the money supply may have an impact on market developments. In the near future, an increase in the money supply can have a beneficial influence on the economy and the stock market, but a sudden increase can lead to inflation, which is obviously bad.

IDR/USD and JUB exchange rates will be used in this investigation. The data used for the LQ-45 stock price index includes the prices of stocks that are actively traded and have an impact on market conditions, such as stock prices with high liquidity. The market has the potential to grow, develop, and a strong financial position. For stock price indices

LQ-45, IDX continues to monitor stock rating changes every six months to ensure stocks that do not reach the LQ-45 index standard are replaced by alternative stock options that meet the LQ-45 index standard.

Previous research, conducted by (Nugroho, 2008) on "Analysis of the Effects of Inflation, Interest Rates, IDR/USD Exchange Rate, and Money Supply on the Indonesia Stock Exchange for the 2002-2007 Period". The findings of this research state that only inflation has no impact on the performance of IHS LQ45. The IDR/USD exchange rate has a positive impact, while the interest rate and JUB have a negative effect. In line with previous research, interest rates and JUB have a negative impact, but the IDR/USD exchange rate has a positive impact, which is an unusual result.

Previous research, (Hidayati, 2020) conducted research on "The Effect of Changes in Inflation, Interest Rates, IDR/USD Exchange Rates, and GDP Growth on the LQ45 Stock Price Index on the Indonesia Stock Exchange" has research findings based on the findings of the T test, the LQ45 stock price index is strongly influenced by changes in the IDR/USD and GDP exchange rates, while inflation and interest rates have a small effect on the LQ45 stock price index.

Previous research, (Sambelay et al., 2017) conducted research on "Analysis of the Effect of Profitability on Stock Prices in Companies Listed in LQ45 for the 2012-2016 Period". For the LQ45 stock price index, the study found that the returns of various assets have a considerable impact. Net profit margin has little impact on the LQ45 stock index, but it does not have a significant impact on the share price.

Problem Statement

Therefore, the LQ45 stock price index is inseparable from economic trends. Economic factors such as inflation, interest rates, IDR/USD exchange rates, and money supply affect the LQ45 stock price index, so the research questions are as follows:

1. Does Inflation affect the LQ45 Stock Price Index?
2. Do Interest Rates affect the LQ45 Stock Price Index?
3. Does the IDR/USD Exchange Rate affect the LQ45 Stock Price Index?
4. Does the Money Supply affect the LQ45 Stock Price Index?

C. Purpose and Usefulness of Research

The following are the objectives of this research in accordance with the problem formulation presented earlier:

1. Analyzing the effect of Inflation on the LQ45 Stock Price Index
2. Analyze the effect of Interest Rates on the LQ45 Stock Price Index
3. Analyze the effect of IDR/USD Exchange Rate on LQ45 Stock Price Index

4. Analyze the effect of the impact of the Money Supply on the LQ45 Stock Price Index In addition, the usefulness of research must pay attention to the objective interests of people using the results, namely:

1. Theoretical Usability

Economic incidents such as inflation, interest rates, IDR/USD exchange rates, and JUB are projected to have an impact on the IDX LQ45 index.

2. Practical Benefits

1) For investors, Investing in the LQ45 stock price index should benefit from this research as it will give investors a better understanding of macroeconomic dynamics and trading volume. Consider the ideal time to invest in a portfolio.

2) The results of this study are expected to be used by academics to discuss and further evaluate macroeconomic issues affecting the LQ45 stock price index.

3) There are several ways that researchers can follow this research, namely expanding scientific understanding of the effects of inflation and interest rates, rupiah / dollar exchange rates, JUB, and scientific theories and concepts. Especially in the field of financial management, the author is still learning.

RESEARCH METHODS

Object of Research

The object in this study is the LQ45 Stock Price Index as the dependent variable and Inflation, Interest Rate, IDR/USD Exchange Rate, and Money Supply as independent variables. Observations made using time series data as much as 60 months of observations from 2016-2020

Data Sources and Data Types

Data sources

This data source is related to the type of research chosen: https://www.idx.co.id/ for LQ45 Stock Price Index data, https://www.bi.go.id/ for Inflation data, Interest Rates and IDR / USD Exchange Rate for the period 2016 – 2020. http://www.bps.go.id for Money Supply data.

Data Type

The type of data used in this study is quantitative data, data measured by a numeric scale (number). This quantitative data is in the form of time series, which is data arranged according to time on a certain variable and this study uses secondary data or often called existing statistics. The analysis method in this study is descriptive analysis.

Population and Sample

Population is a generalized area consisting of objects / subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions. While the sample is part of the number and characteristics possessed by the population.

The population used in this study is all inflation data, interest rates, IDR / USD exchange rates, and money supply, and 45 companies that are included in the LQ45 Stock Price Index category. While the data used as a sample in this study is the stock price of the LQ45 Index using the purposive sampling method, the number of samples obtained, namely the LQ45 Stock Price Index, Inflation, Interest Rates, IDR / USD Exchange Rate and Money Supply which is limited to monthly data during the 2016-2020 period, with non-probability sampling techniques.

Data Collection Techniques

Data collection techniques in this study used documentation methods. The documentation techniques used in this study are carried out by recording or accessing secondary data sources (internal and external).

RESULTS AND DISCUSSION

The Effect of Inflation, Interest Rates, IDR / USD Exchange Rates and Money Supply on The LQ45 Stock Price Index on The Indonesia Stock Exchange for The Period 2016 – 2020

The company that is the object of this is the LQ45 Index company. As a broad explanation of data classification, a description is needed so that the data is easy to implement. The LQ45 index was used as a dependent variable in this study, and four other factors were used as independent variables, namely "inflation, interest rates, IDR/USD exchange rate and money supply". Descriptive analysis is the analytical method used in this study. Secondary data (existing statistics) were used in this study, which used quantitative data in the form of data depending on the length of the variable. Using monthly financial report data from IDX and the company's official website, this study examines the company's forecast for 2016-2020.

This research data was collected through a documentation process. In this study, secondary data sources were recorded and accessed both internally and externally. The criteria for Stocks Included in LQ45 are as follows:

a. Recorded on IDX for at least 3 months.

b. Have a high financial condition, growth spec, and transaction value.

c. Included in 60 shares based on the value of transactions in the regular market in the last 12 months.

d. Included in the 60 stocks with the highest capitalization in the last 1 – 2 months.

Several regression analyses were used in this study because of the presence of several independent variables. This method is used to determine the strength of the relationship between independent and bound variables as well as the extent of the impact of each variable on the other. Classical hypotheses must first be tested to guarantee the model is free from difficulties such as normality, multicollinearity, heteroscedasticity, autocorrelation, and hypothesis testing (Determination Test, t Test, Test) before multiple regression analysis can be performed.

Below are the names of 20 industries listed on the LQ45 Index that are the object of this research:

Figure 4.1 List of 20 Companies listed in LQ45

NO	STOCK CODE	COMPANY NAME	SECTOR		STOCK
1	ADRO	Adaro Energy Tbk.	Materials	Rp	31,985,962,000
2	AKRA	AKR Corporindo Tbk.	Trade	Rp	4,014,694,920
3	ANTM	Aneka Tambang (Persero) Tbk.	Materials	Rp	24,030,764,725
4	ASII	Astra International Tbk.	Misc Industry	Rp	40,483,553,140
5	BBCA	Bank Central Asia Tbk.	Finance	Rp	122,042,299,500
6	BBNI	Bank Negara Indonesia (Persero) Tbk.	Finance	Rp	18,462,169,893
7	BBRI	Bank Rakyat Indonesia (Persero) Tbk.	Finance	Rp	150,043,411,587
8	BBTN	Bank Tabungan Negara (Persero) Tbk.	Finance	Rp	10,484,100,000
9	BMRI	Bank Mandiri (Persero) Tbk.	Finance	Rp	46,199,999,998
10	BRPT	Barito Pacific Tbk.	Chemical Industry	Rp	93,747,218,044
11	BSDE	Bumi Serpong Damai Tbk.	Property &; Construction	Rp	21,171,365,812
12	BTPS	Bank Tabungan Pensiunan Nasional Syariah Tbk	Finance	Rp	7,626,663,000
13	CPIN	Charoen Pokphand Indonesia Tbk.	Chemical Industry	Rp	16,398,000,000
14	CTRA	Ciputra Development Tbk.	Property &; Construction	Rp	18,560,303,397
15	ERAA	Erajaya Swasembada Tbk.	Trade, Service & Investment	Rp	15,950,000,000
16	EXCL	XL Axiata Tbk.	Infrastructure &; Transportation	Rp	10,724,674,776

17	GGRM	Gudang Garam Tbk.	Consumer Goods	Rp	1,924,088,000
18	HMSP	H.M. Sampoerna Tbk.	Consumer Goods	Rp	116,318,076,900
19	ICBP	Indofood CBP Sukses Makmur Tbk.	Consumer Goods	Rp	11,661,908,000
20	INCO	Vale Indonesia Tbk.	Materials	Rp	9,936,338,720

2. Complete Results of Research Estimates

Before the data is analyzed, first carry out a classical assumption test. Model normality, multicollinearity, heteroscedasticity, autocorrelation, and hypothesis tests are tested using classical hypothesis testing. If all these requirements are met, then an analytical model is a viable option.

a. Descriptive Statistical Test

Minimum, maximum, mean, and standard deviation provide an overview or description of data in descriptive statistics. Data on dependent & independent variables in this study were collected and processed in the following ways:

Tabel 4.1 Deskriptif Penelitian

Keterangan	N	Min.	Max.	Mean	Std. Deviation
Indeks Harga Saham LQ45	56	691,13	1105,76	924,5075	95,93624
Inflasi	56	,32	4,42	2,8932	1,00798
Suku Bunga	56	3,75	7,25	5,0938	,84418
Kurs	56	13668,10	16660,80	14704,1680	675,34813
Jumlah Uang Beredar	56	4498361,28	6817456,68	5577165,4396	624542,90152
Valid N (listwise)				56	

Sumber : Data olah 2021

The table shows a general statistical illustration of descriptive bound and independent variables. In accordance with the table can be described, among others.

1) LQ45 Stock Price Index

Based on the table, the LQ45 stock price index has a minimum value of 691.13, a maximum value of 1105.76, an average value of 924.5075, and a standard deviation of 95.93620. The share price on the LQ45 index is well distributed, with a mean of 924.5075 > a standard deviation of 95.93624. This suggests that the average LQ45 stock price index can be used as a proxy for overall market data. Based on the findings, the sample of the LQ45 stock price index ranged between 691.13 and 1105.76.

2) Inflation

The figures in the table above show the lowest inflation rate of 0.32%, the highest of 4.42, the average of 2.8932, and the standard deviation of 1.00798, respectively. It can be seen that the standard deviation of inflation data is 2.8932 > 1.00798. As a result, the entire data can be represented by the average inflation rate. This indicates that the inflation rate used in this study was between 0.32 and 4.42.

3) Interest Rate

Based on the data in the table above, interest rates range from a low of 3.75 percent to as high as 7.25 percent, with an average of about 5.0938 percent and a standard deviation of about 0.84418 percent, indicating that interest rate data is widespread. Distributed. Here, we see that the average interest rate can be used to represent the entire data. The study found that the interest rate used as a sample was between 3.75 and 7.25 percent, according to the findings

4) Exchange Rate (IDR/USD)

Looking at the table above shows that the exchange rate has a range of 13,668.10 to 16,660.80, with an average value of 14,704,1680 and a standard deviation of 675.34813. The currency rate data has a mean of 14.704.1680 > a standard deviation of 675.34813. This demonstrates the usefulness of using average exchange rates to describe data sets. According to these findings, the exchange rate of the sample was in the range of 13,668.10 to 16,660.80

5) Money Supply

The table shows that the minimum value of the JUB point is approximately 4,498,361.28; the maximum value is approximately 6,817,456.68; the average value is about 5,577,165,4396; and the standard deviation is about 624.542.90152 as can be seen from the table above. Data on the money supply is evenly distributed, as seen from the average standard deviation of 5.0938 > 0.84418. The statistics of the money supply can be represented by calculating the average value for each individual currency. Using JUB as an example, the results show that JUB ranges from 3.75 to 7.25

1) Classical Assumption Test

According to Sunjoyo, et al (2013: 54) the classical assumption test is a statistical requirement that must be met in multiple linear regression analysis based on Ordinary Least Square (OLS). Classical assumption testing is a condition that must be done before testing hypotheses. The classical assumption test consists of the following:

a. Normality Test

Normality testing is used to identify whether the dependent and independent variables of the regression model are regularly distributed (Ghozali, 2011). The normality test was carried out using the Kolmogorov-Smirnov technique. SPSS is used to perform the Kolmogorov-Smirnov test to identify whether data is circulating normally according to the Asymph model. A sign (2 tails). Based on Asymptote's input, a decision was made. This means that the data is not normally distributed, and vice versa if the sig (2-tailed) < 5 percent. This means that the data is not normally distributed, and vice versa. The following are the findings of the K-S test.

Tabel 4.2 One-Sample Kolmogorov-Smirnov Test

		56
Normal Parametersa,b	Mean	,0000000
Std. Deviation		41,02035480
Most Extreme Differences	Absolute	,078
Positive		,078
Negative		-,070
Kolmogorov-Smirnov Z		,585
Asymp. Sig. (2-tailed)		,884
Test Ditribution is normal		
Calculated from data		

Sumber : Data di olah 2021 dengan SPSS 21

Based on the results of the normality test, based on the Kolmogrov-Smirnov test the test gets an asymp sig (2-tailed) value of 0.884, which is 0.884>0.05.
These results can be concluded that this regression model is normally distributed.

b. Multicollinearity Test

The purpose of the multicollinearity test is to determine whether the independent variables in the regression model are interrelated. There is no relationship between the independent variables in the corresponding regression model. Value tolerance and factor inflation variance (VIF) both express multicollinearity. A low tolerance number equals a high VIF value because VIF = 1 / Tolerance, which quantifies the variability of selected variables that cannot be formulated by other independent variables. This means that if the data has a tolerance point of ≥ 0.10 or equal to the VIF value of ≤ 10, it is free from multicollinearity (Ghozali, 2011: 105-106). The conclusions of the findings of the Multicollinearity Test are shown in Table 4.5.below.

Tabel 4.5 Uji Multikolinearitas

Coefficients^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-6,178	6,462		-,956	,344		
Inflasi	4,706	5,282	,110	,891	,377	,991	1,010
Suku Bunga	16,776	34,452	,061	,487	,628	,957	1,045
Kurs	-,041	,014	-,374	-2,918	,005	,917	1,090
Jumlah Uang Beredar	,000	,000	-,238	-1,891	,064	,946	1,057
a. Dependent Variable: Indeks Harga Saham LQ45							

Sumber : Data di olah 2021 dengan SPSS 21

Based on the results of the Multicollinearity test, the tolerance values are produced as follows:
1. Inflation of 0.991
2. Interest Rate of 0.957
3. Exchange rate of 0.917
4. Money Supply 0.946
　　　　Based on the results of the multicollinearity test in the table above, the results of the calculation of the tolerance value show that there is no independent variable that has a tolerance value of ≥ 0.10 or equal to VIF ≤ 10, so it can be concluded that the regression model in this study does not occur multicollinearity and the regression model is feasible to use.

c. Heteroscedasticity Test
　　　　To see if residual data from the linear regression model had consistent variance across observations, a heteroscedasticity test was run. This is the standard hypothesis test for linear regression models, and it is part of that process. This means that the regression model is wrong or not worth testing if heteroscedasticity tests are not carried out. At 60 absolute residual points, Glejser can be used to test heteroscedasticity in regression models. It is necessary to compare the coefficient of significance (PPP) of this test with a predetermined level of significance (0.5). The problem of heteroscedasticity can be ruled out if the significance coefficient exceeds the specified significance level.

The test findings are stated in the following table:

Tabel 4.4 Uji Heteroskedastisitas

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	.B	Std. Error	Beta		
(Constant)	28,408	3,864		7,351	,000
Inflasi	-,312	3,158	-,013	-,099	,922
Suku Bunga	23,649	20,602	,157	1,148	,256
Kurs	-,007	,008	-,123	-,880	,383
Jumlah Uang Beredar	-6,050E-005	,000	-,208	-1,517	,136

Sumber : Data di olah 2021 dengan SPSS 21

From the results of the table above can be concluded as follows:
1. Inflation significance value of 0.922
2. The significance value of the interest rate is 1.148
3. Value The significance value of the exchange rate is -0.880
4. Value The significance value of the money supply is -1.517

From the results of heterokedasticity processing carried out by the spearman method on 4 (four) variables used in this study, Table 4.4 shows that none of the independent variables that are statistically significant affect the dependent variable of absolute residual value. This can be seen from the probability of significance above the 5% confidence level, which means that there is no correlation between the size of the data and the residual, so that if the data is enlarged, it does not cause residuals (errors) to be even greater. Therefore it can be concluded that the regression model does not contain heteroscedasticity, so H0 is accepted and Ha is rejected (there is no heteroscedasticity or the data are homoscedasticity).

5. Autocorrelation Testing

The regression model autocorrelation test examines the relationship between misuse in duration t and misuse in duration t-1 (previous). Using a regression model without autocorrelation is the best approach. The Durbin-Watson statistical test (D-W) was first used to detect autocorrelation. The findings of the autocorrelation test include:

Tabel 4. 3. Uji Autokorelasi

Model Summary					
M odel	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,482a	,233	,172	42,59863	1,958
a. Predictors: (Constant), Inflasi, Suku Bunga, Kurs, Jumlah Uang Beredar					
b. Dependent Variable: Indeks Harga Saham LQ45					

Sumber : Data di olah 2021 dengan SPSS 21

Based on the SPSS output above, the Durbin-Watson (D-W) test can be used to detect autocorrelation symptoms. The autocorrelation test with a Durbin-Watson value of 1.958 is shown in the table above. Durbin-Watson table values were used as a basis for comparison, with significance values of 5% and 60 samples (n) and 4 independent variables (k = 4), D-W = 1.958 which means no autocorrelation symptoms were found. Since DU < DW < 4-DU, this is the case. The value of DU is 1.7246 4-DU = 2.2754 which means 1.7246 < 1.958 < 2.2754. Because the results of this research show signs of autocorrelation, multiple linear regression tests should use first-difference or first-difference models.

Based on the results of the table above, it can be concluded that there are no symptoms of autocorrelation in this regression model and can be used.

6. Multiple Linear Regression Test

Autocorrelation symptoms are examined using multiple linear regression analysis. First-order divergence transformations are used to address the problem of autocorrelation in this investigation. Assuming all variables exist, this equation (Amin, 2012) states that the difference between this month's data and the previous month's data (Y(t)-Y(t-1), X1(t)-X2(t-1), …) can be converted to the first difference form:

$$Y = \alpha + \beta 1.X1 + \beta 2.X2 + \beta 3.X3 + e$$

Keterangan:

d (delta) = selisih angka variabel pada hari ini dengan kemarin

$Y = Y(t) - Y(t-1)$

$X1 = X1(t) - X1(t-1)$

$X1 = X2(t) - X2(t-1)$

$X2 = X3(t) - X3(t-1)$

$X3 = X1(t) - X1(t-1)$

$X4 = X1(t) - X1(t-1)$

α = konstanta

ε = standar error

Below are the findings of multiple linear regression with SPSS data processing.

In accordance with the table, the multiple linear regression equation is:

$$LQ45 = -6,178 - 4,706(\text{Inflasi}) - 16,776(\text{SBI}) + 0,41(\text{Kurs}) - 0,000(\text{JUB})$$

The interpretation of the above equation is as follows:
1. There is a constant value of -6.178 in the regression test findings. A value of -6.178 is given for the variables inflation, interest rate, exchange rate, and money supply as a whole.
2. IHS LQ45 is not significantly affected by inflation as indicated by a coefficient of 4.706>0.05 and a coefficient value of -6.178. That is, for every increase of one unit of inflation, the LQ45 stock price index fell by -6,178 points.
3. The variable interest rate has a probability of 16.776 0.05 and a coefficient of -6.178, respectively, as a result it can be summarized that the interest rate has a bad and insignificant impact on IHS LQ45. The result can be interpreted that every increase in interest rate by one unit can minimize IHS LQ45 around -6.178.
4. The exchange rate probability variable is -0.041>0.05 and the coefficient is -6.178, so it can be stated that the exchange rate has a positive and significant effect on the LQ45 stock price index. The LQ45 share price index will increase by -6,178 for every increase of one unit of the exchange rate.
5. JUB has a positive and significant effect on IHS LQ45, evidenced by probability variables of 0.000 > 0.05 and a coefficient of -6.178. As a result, the LQ45 share price index rose -6,178 for every one-unit increase in JUB.

7. Hypothesis Testing Results

To test the premise of this research, the data first needs to be analyzed statistically. Regression testing is a statistical technique used in this research. The normal distribution of residual values can be affected by regression tests, of course t-tests and F-tests. The statistical test is incorrect if this hypothesis deviates from the normal distribution. As a result, data that deviate from the expected distribution cannot be used for research. Hypotheses one to four in this study will be tested using a partial test (t-test) to determine whether the independent variable affects the dependent variable or not.

1) Model Feasibility Test (Adjusted R2)

Multivariate regression equations can be assessed by the Adjuster coefficient of determination R2, which expresses the extent of a statistically significant correlation between the dependent variable and its independent factor. That is, the adjusted R2 value reveals how well the

Tabel 4.9 Uji Determinasi

Model Summary^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,482^a	,233	,172	42,59863
a. Predictors: (Constant), Jumlah Uang Beredar, Inflasi, Suku Bunga, Kurs				
b. Dependent Variable: Indeks Harga Saham LQ45				

Sumber : Data Olah 2021

regression model takes into account the dependent variable. The following table states the findings of the t-test for this investigation.

Based on the results of the determinant hypothesis test (R2), the Adjusted R Square value is 0.172 or 17.2%. For this study, only 17.2% of the effect of the independent variable on the dependent variable could be explained by R2 which was 0.172, and the remaining 92.8% could be explained by other variables not included in this study.

2) Partial Test (Test t)

The accuracy of regression results is tested by t-test with a confidence level of 95% or α = 5%. In the t-statistical test, how much impact the explanatory/independent variable has on the dependent variable is shown through the t-statistical test. The regression coefficient is used to identify the impact of the variables Inflation, Exchange Rate, Dow Jones Index and Money Supply on the Composite IHS. The provisions of the hypothesis test are partially implemented with the following policies:

a. If the significance point < 0.05, H0 is not accepted and Ha is accepted.
b. If the significance point > 0.05, H0 is accepted and Ha is not accepted.

Tabel 4.7 Uji t

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-6,178	6,462		-,956	,344
	Inflasi	4,706	5,282	,110	,891	,377
	Suku Bunga	16,776	34,452	,061	,487	,628
	Kurs	-,041	,014	-,374	-2,918	,005
	Jumlah Uang Beredar	,000	,000	-,238	-1,891	,064
a. Dependent Variable: Indeks Harga Saham LQ45						

Sumber : Data di olah 2021 dengan SPSS 21

From the regression equation can be interpreted, among others:

a. If independent variables such as inflation, interest rates, exchange rates, and money supply are all set to zero, then the LQ45 stock price index has a value of -6.178 which indicates that the independent variable has no effect on the LQ45 stock price index.

b. The LQ45 stock price index will increase by 0.4706 if inflation increases by 1 unit, according to the inflation regression coefficient (X1). As a result, it can be summarized that inflation has a positive and significant impact on IHS lq45

c. The interest rate regression coefficient (X2) is 16.776, which indicates that if the variable interest rate increases by 1 unit, then IHS lq45 will rise by about 16.776.

d. If the exchange rate increases by 1 unit, the LQ45 stock price index of 16,776 will decrease by 0.041. This is the exchange rate regression coefficient (X3).

e. The money supply (X4) has a regression coefficient of 0.000, meaning that if the money supply increases by one unit, the stock price index (lq45) will also increase by 0.000. There is a considerable correlation between the exchange rate of 0.005<0.05 and IHS-lq45 which means that the exchange rate variable negatively affects IHS lq45. However, inflation, interest rates and

JUB variables > 0.05 all had a major positive effect on IHS-lq45, namely 0.377>0.05, 0.628>0.05, and 0.064>0.05. As a result, IHS lq45 was negatively affected by inflation, interest rates, and JUB.

3) Simultaneous Test (Test F)

Use the F test to see if all independent factors have an impact on the dependent variable simultaneously. The F-test findings of this research can be observed below in the table below

Tabel 4.8 Uji F

ANOVAᵃ						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28042,468	4	7010,617	3,863	,008ᵇ
	Residual	92546,823	51	1814,644		
	Total	120589,291	55			
a. Dependent Variable: Indeks Harga Saham LQ45						
b. Predictors: (Constant), Jumlah Uang Beredar, Inflasi, Suku Bunga, Kurs						

Sumber : Data olah 2021

In accordance with the table, the results of the data processing show sig points around 0.008 <0.05. As a result, it can be stated that inflation, interest rates, exchange rates and JUB variables have an impact on IHS lq45.

Based on the results of the analysis using SPSS, it can be concluded:

1. Effects of Inflation on the LQ45 Stock Price Index

From the results of the study, it is known that inflation is positive and insignificant to the LQ45 Stock Price Index. The effect of inflation on the LQ45 Stock Price Index is positive that is, the higher the inflation value, the higher the LQ45 Stock Price Index or the lower the inflation, the lower the value of the LQ45 Stock Price Index. This can be seen from the value of the regression coefficient of 0.4706, t calculated at 0.891, and the significance level of 0.377, meaning that the significance of inflation is greater than the predetermined significance level of 0.05.

2. The Effect of Interest Rates on the LQ45 Stock Price Index

From the results of the study, it is known that the interest rate is positive and insignificant to the LQ45 Stock Price Index. The effect of Interest Rates on the LQ45 Stock Price Index is positive that is, the higher the value of the Interest Rate, the higher the LQ45 Stock Price Index or the lower the Interest Rate, the lower the value of the LQ45 Stock Price Index. This can be seen from the value of the regression coefficient of 16.776, t-count 0.487 and the significance level of 0.628 is greater than the predetermined significance level of 0.05.

3. The Effect of Exchange Rate on LQ45 Index

From the results of the study, it is known that the exchange rate is negative and significant to the LQ45 Stock Price Index. The effect of the Exchange Rate on the LQ45 Stock Price Index is positive that the higher the exchange rate value, the lower the value of the LQ45 Stock Price Index or the lower the Exchange Rate, the higher the value of the LQ45 Stock Price Index. This can be seen from the regression coefficient value of -0.041, t-count -2.918, and the significance level of

0.005, meaning that the exchange rate has a significance value smaller than the predetermined significance level of 0.05.

4. The Effect of the Money Supply on the LQ45 Index

From the results of the study, it is known that the Money Supply has a positive and insignificant effect on the LQ45 Stock Price Index. The effect of the Money Supply on the LQ45 Stock Price Index is positive that the higher the value of the Money Supply, the higher the value of the LQ45 Stock Price Index or the lower the Money Supply, the lower the value of the LQ45 Stock Price Index. This can be seen from the value of the regression coefficient of about 0.000, t-count of -1.891, and the significance level of 0.064 is greater than the predetermined significance level of 0.05.

CONCLUSION

In accordance with the findings of the data analysis "The Effect of Inflation, Interest Rates, Exchange Rates, and Money Supply on the LQ45 Stock Price Index on the Indonesia Stock Exchange", a summary below was obtained. Inflation has a positive and insignificant influence on the lq45 stock price index. Therefore, inflation cannot be used to predict the lq45 stock price index on the Indonesia Stock Exchange for the 2016-2020 period. Interest rates have a negative and insignificant influence on the lq45 stock price index. Therefore, interest rates cannot be used to predict the lq45 stock price index on the Indonesia Stock Exchange in 2016-2020. The exchange rate partially has a positive and significant influence on the lq45 stock price index, so the exchange rate can be used to predict the stock price of the lq45 index on the Indonesia Stock Exchange in 2016-2020. The money supply has a positive and insignificant influence on the lq45 stock price index. Therefore, the interest money supply cannot be used to predict the lq45 stock price index on the Indonesia Stock Exchange in 2016-2020.

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