

# The Effect of Inflation, Interest Rates, and Rupiah Exchange Rates on Stock Returns in Banking Companies

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**Abstract:** This study aims to determine the effect of inflation, interest rates, and the rupiah exchange rate on stock returns in banking companies listed on the Indonesia Stock Exchange for the 2019-2023 period. The population in this study are banking companies listed on the Indonesia Stock Exchange for the 2019-2023 period. Sample selection using purposive sampling technique, the number of companies sampled in this study were 6 companies. The data analysis technique used is descriptive analysis and multiple linear regression tests. The results showed that Inflation has a negative and significant effect on Stock Returns. Interest rates have a positive and significant effect on stock returns. The Rupiah Exchange Rate has a positive and insignificant effect on Stock Returns. Inflation, Interest Rates and Rupiah Exchange Rates simultaneously and significantly affect Stock Returns.

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**Keywords:** Inflation, Interest Rates, Exchange rates, Stock Returns

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## A. INTRODUCTION

Indonesia is a developing country that is experiencing economic improvement. Various policies were taken by the government to overcome the adverse effects of the global crisis. Starting from raising interest rates or strengthening foreign currency circulation. Therefore, Indonesia as a developing country needs a large amount of capital that is in line with the amount of growth that is being targeted by the company (Cahyani, 2019). In developing countries such as Indonesia, the function and role of commercial banks in the economy is very important and strategic, namely supporting the strength and smoothness of the payment system and the effectiveness of monetary policy. More than that, commercial banks are also the most indispensable financial institutions in economic development, where commercial banks channel credit in order to accelerate economic development. The banking industry, which is always synonymous with inflation, interest rates, and the rupiah exchange rate, is one sector that attracts the attention of many investors to invest their excess funds in order to benefit, namely by saving or by buying shares offered by these banks (Silaban, 2020).

High inflation is a negative signal for companies because the price of raw materials has increased. If raw materials rise, production costs will also rise followed by an increase in product prices. If product prices increase, it will cause the level of sales in the company to decrease followed by a decrease in company profits. If the profit in the company decreases,

the share price will also decrease. A decrease in stock prices makes the return earned by shareholders also decrease. Conversely, if the inflation rate decreases, it is a positive signal for the company because people's purchasing power will increase (Hidaya, 2018). Interest rates are a parameter for people to make investments. Interest rates are important in the growth and development of the economy, especially the real sector and capital flows in a country. If interest rates tend to rise, then capital owners will allocate their funds into other investment instruments such as deposits (Wulandari, 2021).

Interest rates have a negative impact on stock returns and stock prices. If lending rates are high, loan interest increases and can cause a decrease in net profit for the company. If deposits experience an increase in interest rates, it will cause investors to sell their shares to shift their investment to deposits (Nurfadilah, 2021). Unstable exchange rate fluctuations will reduce the level of foreign investors in the Indonesian economy. The weak rupiah exchange rate affects the company's return on investment (Ali, 2022). Changes in the rupiah exchange rate against the USD dollar will also change the amount of the company's profit and loss. Especially for banking industry companies that use various types of currencies. With the change in the rupiah exchange rate, the company's revenue in rupiah will also change (Abdallah, 2018).

Stock returns on banking companies are inseparable from the influence of various dynamic external factors, such as inflation, interest rates, and the rupiah exchange rate. Stock returns can also be said to be changes in current stock prices with previous stock prices. The higher the share price, the higher the stock return earned by shareholders. The greater the stock return generated by an investment, the greater the attractiveness of the stock investment for investors, while still taking into account the risk factors inherent in the investment (Anggraini, 2020).

## **B. METHOD**

The research data used is secondary. Financial reporting data is available on the site [www.idx.co.id](http://www.idx.co.id), data on inflation, interest rates and exchange rates obtained from the Bank Indonesia site, namely [www.bi.go.id](http://www.bi.go.id) and obtained from the Central Statistics Agency site, namely [www.bps.go.id](http://www.bps.go.id). The research method used is a quantitative method, namely a method whose calculations are numerical. This analysis is directed to examine the effect of inflation, interest rates and the rupiah exchange rate on stock returns in banking companies listed on the Indonesia Stock Exchange during the 2019-2023 period. This analysis uses statistical analysis, namely SPSS 25.

The population of this study are companies listed in the banking sector on the Indonesia Stock Exchange for the 2019-2023 period, namely 47 companies. The sampling used is purposive sampling technique, and the number of companies taken based on certain standards so that 6 companies are obtained as samples in this study and the observation year is 5 periods (12 months), and the extraction results are 30 samples. The analysis method used is descriptive statistical test and classical assumption test consisting of normality test, multicollinearity test, heteroscedacity test, multiple linear regression analysis, F test (Simultaneous), T test (Partial) and determination coefficient test ( $R^2$ ).

## C. RESULTS AND DISCUSSION

### 1. Descriptive Statistics Test

**Table 1.** Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Inflasi	30	1.56	4.21	2.906	1.00606
SukuBunga	30	3.52	5.83	4.646	.93353
NilaiTukarRupiah	30	14146	15255	14631.2	403.633
ReturnSaham	30	-3.48	.94	-.263	1.13405
Valid N (listwise)	30				

The table above shows that the highest value of inflation is 4.21%. while the minimum value is 1.56%. The average value of inflation during the study period was 2.90%. Interest rates have a maximum value of 5.83% while the minimum value is 3.52% and interest rates have an average value of 4.64%. While the standard deviation during the study period, the size of the spread of the interest rate variable was 0.93%. The Rupiah Exchange Rate during the study period had a minimum value of Rp. 14,146 and the highest rupiah exchange rate was Rp. 15,255 while the average rupiah exchange rate during the study period was Rp. 14,631. Stock Return has a maximum value of 0.94, while the minimum value is -3.48 and the average value of stock returns is -0.26. The standard deviation of stock returns is 1.13 or an amount that exceeds the average return value.

### 2. Classical Assumption Test

#### a. Normality Test

**Table 2.** One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		30
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	0.80660101
Most Extreme Differences	Absolute	.137
	Positive	.096
	Negative	-.137
Test Statistic		.137
Asymp. Sig. (2-tailed)		.158 <sup>c</sup>

It can be seen from the table above that the sig value or probability value is 0.158, meaning that the data above is said to be normal because the probability value is greater than 0.05.

b. Multicollinearity Test

**Table 3.** Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
1 Inflasi	0.523	1.913
SukuBunga	0.792	1.262
NilaiTukarRupiah	0.612	1.635

Based on the table above, it can be seen that the Tolerance value on the inflation variable (X1) is 0.52, the interest rate variable (X2) is 0.79 and the rupiah exchange rate variable (X3) is 0.61, meaning that all variables in this study have a Tolerance value greater than 0.10. While the VIF value of the inflation variable (X1) is 1.91, the interest rate variable (X2) is 1.26 and the rupiah exchange rate variable (X3) is 1.64, meaning that all variables in this study have a VIF value below 10. So it can be concluded that the variables in this study can be said to be free from multicollinearity.

c. Heteroscedasticity Test

**Table 4.** Heteroscedasticity Test (Uji Glejser)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	11.38	13.048		.872	.402
Inflasi	-.174	.283	-.271	-.614	.552
SukuBunga	.145	.295	.242	.491	.633
NilaiTukarRupiah	-1.00E-03	.001	-.323	-.868	.404

Based on the results of the Glejser test above, it shows that the significant value of the Inflation variable (X1) is 0.552 > 0.05, meaning that the inflation variable does not occur heteroscedasticity. The interest rate variable (X2) has a significant value of 0.633 > 0.05, meaning that the rupiah exchange rate variable does not occur heteroscedasticity, and the significant value of the Rupiah Exchange Rate variable (X3) of 0.404 > 0.05 means that the interest rate variable does not occur heteroscedasticity.

d. Autocorrelation Test

**Table 5.** Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.729 <sup>a</sup>	.531	.475	.83011	2.046

In the table above, it can be seen that the DW value is 2.046. There is no autocorrelation in the data if the value of  $DU < DW < 4-DU$ . Testing the value in the table can be used as a reference (k, n) where the value of k is the number of independent variables tested,

so the value of  $k = 3$  and  $n = 30$ . It is known that the value of  $DU = 1.649$  and  $DL = 1.213$ . The result is the autocorrelation value between  $1.649 < 2.046 < 2.351$ , so it can be concluded that the data is free from autocorrelation.

### 3. Hypothesis Testing

#### a. F Test (Simultaneous)

**Table 6.** F Test (Simultaneous)

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.428	3	6.143	8.465	.000 <sup>b</sup>
	Residual	18.868	26	.726		
	Total	37.296	29			

Based on the F test, based on the output above, it is known that the significant value for the effect of inflation, interest rates and exchange rates simultaneously on stock returns is  $0.000 < 0.05$  or the value of F count  $8.465 > F$  table 2.98, it can be concluded that there is a significant influence between the independent variables of inflation, interest rates and rupiah exchange rates on the dependent variable stock returns simultaneously.

#### b. T Test (Partial)

**Table 7.** T Test (Partial)

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.492	7.028		-.212	.834
	Inflasi	-.902	.217	-.800	-4.147	.000
	SukuBunga	.556	.190	.458	2.922	.007
	NilaiTukarRupiah	8.65E-05	.001	.031	.173	.864

$$Y = -1.492 - 0.902X_1 + 0.556X_2 + 8.650X_3 + e$$

Partial test between the independent variable inflation ( $X_1$ ) on stock returns ( $Y$ ), has a significance value of  $0.000 < 0.05$ . So  $H_0$  is rejected ( $H_a$  is accepted), meaning that the inflation variable partially has a significant effect on stock returns. Partial test between the independent variable interest rate ( $X_2$ ) on stock returns ( $Y$ ), has a significance value of  $0.007 < 0.05$ . So  $H_0$  is rejected ( $H_a$  is accepted), meaning that the interest rate variable partially has a significant effect on stock returns. Partial test between the independent variable rupiah exchange rate ( $X_3$ ) on stock returns ( $Y$ ), has a significance value of  $0.864 > 0.05$ . So  $H_0$  is accepted ( $H_a$  is rejected), meaning that the rupiah exchange rate variable partially has no significant effect on stock returns.

c. Coefficient of Determination Test

**Table 8.** Coefficient of Determination Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.729 <sup>a</sup>	.531	.475	.83011	2.046

Based on the table above, it can be seen that the coefficient of determination (R<sup>2</sup>) is 0.475. Thus it can be said that the effect of inflation, interest rates and rupiah exchange rates on stock returns is 47.5%, while the remaining 52.5% is influenced by other variables. other. In this study, the coefficient of determination (R<sup>2</sup>) used is Adjusted R Square, because this study uses more than two independent variables.

## D. CONCLUSIONS AND SUGGESTIONS

Based on the research results, it can be concluded that Inflation has a negative and significant effect on Stock Returns in banking companies listed on the Indonesia Stock Exchange for the 2019-2023 period. Interest rates have a positive and significant effect on Stock Returns in banking companies listed on the Indonesia Stock Exchange for the 2019-2023 period. The Rupiah Exchange Rate has a positive and insignificant effect on Stock Returns in banking companies listed on the Indonesia Stock Exchange for the 2019-2023 period. Inflation, Interest Rates and Rupiah Exchange Rates simultaneously and significantly affect Stock Returns in banking companies listed on the Indonesia Stock Exchange for the 2019-2023 period.

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