

## The Influence of The Rupiah Exchange Rate and Gold Exchange on The Banking Sector Stock Price Index on The Indonesian Stock Exchange In 2020-2023

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**Abstract:** Share prices are used to see the value of the company. If the share price of a company is classified as high, then it can be said that the company's value is in good condition. This research aims to determine the influence of the rupiah and gold exchange rates on share prices in the banking sub-sector listed on the Indonesian Stock Exchange (BEI) in 2020-2022. This research uses quantitative methods, the population of this research is 30 companies and the sample taken is 10 companies according to the criteria. Data is taken using Purpose Sampling techniques, types of data using secondary data, data analysis using multiple linear analysis. The research results show that the rupiah exchange rate has a positive effect on the share prices of banking companies listed on the Indonesian stock exchange, gold has a positive effect on the share prices of banking companies listed on the Indonesian stock exchange

**Keywords:** Rupiah Exchange Rates, Gold, Stock Prices

### INTRODUCTION

The capital market is a means of funding and investment for companies and other institutions by providing opportunities for the public to participate in supporting the financing of the national economy. That's why many investors pay attention to whether the stock price index is rising or falling. The main element of the capital market is shares which combine to form a stock index. One of the main indicators that reflects the condition of the capital market, whether it is experiencing an increase or a decline, is the banking sector index (infobank15).

Table 1. Banking Sector Sample Criteria

Code	Company Name	Market Cap (in Trill. IDR)	Indeks Weight	Sector
BBCA	Bank Central Asia Tbk	825.01	42.67%	Financials
BBRI	Bank Rakyat Indonesia (Persero) Tbk	510.43	26.40%	Financials
BMRI	Bank Mandiri (Persero) Tbk	303.76	15.71%	Financials
BBNI	Bank Negara Indonesia (Persero) Tbk	102.47	5.30%	Financials
MEGA	Bank Mega Tbk	62.05	3.21%	Financials
BTPS	Bank BTPN Syariah Tbk	25.93	1.34%	Financials
PNBN	Bank Pan Indonesia Tbk	23.84	1.23%	Financials
BTPN	Bank BTPN Tbk	21.21	1.10%	Financials
NISP	Bank OCBC NISP Tbk	19.19	0.99	Financials
BJBR	Bank Pembangunan Daerah Jawa Barat dan banten	14.32	0.74	Financials
Top 10 Constituents		1,908.21	98.69%	Financials

Source: [www.idx.co.id](http://www.idx.co.id) (2024)



The population of 30 banking sector companies in accordance with the criteria of the Infobank15 index was taken with 10 banking companies which were the research samples to assess share prices as one of the management of companies which is formed from agreements between sellers and buyers or from the strength of demand and supply of shares that occurs on the stock exchange market in certain moment. Closing Price is sampled because it is seen from the closing price of a stock which is determined at the end of the second session. Stock price indexes usually change during this session. Factors that influence the Stock Index include changes in Central Bank interest rates, circumstances Global economy, world energy price levels, political stability of a country, exchange rate (the exchange rate of the country's currency against the United States dollar), etc. (Sartika, 2011). One indicator of a country's macroeconomic success in addition to other factors, such as interest rates, exchange rates and macroeconomics, the mining sector, gold and others.

The exchange rate is a comparison between the value of one country's currency and that of another country. The foreign exchange market is a place to carry out transactions that trade one country's currency against another country's currency (Handiani, 2014). Determining the value of the rupiah exchange rate is usually due to direct government intervention into the money market with fiscal policy and quantitative monetary policy, or indirectly such as appeals and the like.

Gold is also made into jewelry by mining processing companies, which is why gold prices tend to have a direct relationship with share prices in the mining sector. In addition, mining sector companies can increase their profits from selling gold to people who invest in gold for speculation. (Gaur and Bansal's, 2010) research show that there is a negative influence between gold prices and stock prices.

If the price of gold rises, the share price falls. The increase in the price of gold causes investors to reduce their investment in shares and causes share prices to fall. This is because gold is still seen as a safer investment than shares. This is in accordance with portfolio theory which states that to reduce investment risk it is better to diversify your portfolio. Investing in gold is one way to diversify your portfolio considering that gold is a safer type of investment than investing in shares.

## LITERATURE REVIEWS

### Capital Market

According to (Tandelilin, 2017) the capital market is a meeting between parties who have excess funds and parties who need funds by buying and selling securities. The capital market is an indicator of a country's economy, the capital market provides facilities to bring together parties with surplus funds with parties in need and within the investment framework. In the cycle of the economy, sources of financing are the backbone of business development. The capital market has an important role for the economy in Indonesia because the capital market functions as an intermediary institution that connects parties who need funds with parties who have excess funds. Apart from that, the capital market encourages the creation of efficient allocation of funds because with the existence of the capital market, parties who have excess funds or investors can choose investment alternatives that provide the highest rate of return. With this, funds originating from investors can be used productively by these companies.

### Indonesia stock exchange

The Indonesian Stock Exchange is a place where people meet *broker* and *dealer* to buy and sell securities (shares and bonds). Generally, abroad, stock exchanges are held by private companies, and even the owners are people *broker* and *dealer* itself ([www.idx.co.id](http://www.idx.co.id)). The role of the Indonesian Stock Exchange is sending publications



issued by the IDX, supporting activities related to the dissemination of capital market education, providing opportunities for internships, facilitating the formation of investment groups. The stock exchange or capital market in Indonesia is the Indonesia Stock Exchange (BEI) or also known as the Jakarta Stock Exchange (JSX).

### Rupiah/IDR exchange rate

Exchange rate is a comparison of the value or price of a country's local currency with another country's currency. The BI IDR/USD middle rate is a comparison of the Indonesian currency with the United States currency by calculating the selling rate plus the buying rate divided by two. Formula, Bank Indonesia (2008):

$$\text{Rate Rupiah} = \frac{\text{Course Sell} + \text{Course Buy}}{2}$$

The exchange rate (exchange rate) is the amount of local currency needed to buy one unit of foreign currency. Foreign exchange rates based on (Eiteman *et al.*, 2003) is the price of one country's currency in units of another country's currency or commodity (usually gold or silver). According to (Darmadji, 2006) the currency exchange rate or often called the exchange rate is the price of a currency against other currencies. There are two approaches used to determine currency exchange rates, namely the monetary approach and the market approach. In the monetary approach, the currency exchange rate is defined as the price at which foreign currency is traded against domestic currency and this price is related to the supply and demand for money. Exchange rates relate to fluctuations in the exchange rate of domestic currency with the value of other countries' currencies.

Basically, there are two ways to determine currency exchange rates, namely based on the demand and supply of foreign currency in the free market and determined by the government. The government can intervene in determining foreign currency exchange rates to ensure that the existing exchange rate will not have a negative effect on the economy. (Sukirno, 2004) explains that the lower the price of the United States dollar, the greater the demand for that currency. The higher the price of the United States currency, the more supply of that currency and the lower the price of the United States currency, the less supply of that currency.

### Gold

Gold is a form of investment that tends to be risk-free. Gold has a value that tends to be stable and increase. It is very rare for the price of gold to fall. And gold is a tool that can be used to ward off inflation which often occurs every year. According to (Pratama, 2017) gold is a metallic element that is soft, shiny, yellow, heavy, easy to shape and ductile. Gold has the property of not easily reacting with other chemicals, which is why gold is called a noble material. The international standard for world gold prices is not valued in grams. However, using the unit troy ounce or what is usually written as 1 Oz t which is equivalent to 31.1034768 grams, (Ryan and Fahmi, 2015). To calculate the world price per gram of gold, you can use the formula:

$$1 \text{ gram of world gold} = \text{World gold price (US Dollar)} \times \text{exchange rate}$$

Gold is the oldest investment alternative. Investment in gold is known to all levels of society and has been around for thousands of years BC. Like shares, gold has been proven to provide profits far above inflation, especially in the long term, so gold is a form of investment that tends to be risk-free

## RESEARCH METHOD



### Analysis Techniques

This research analysis uses descriptive and verification methods, namely multiple linear regression. The data for this research is secondary data in the form of rupiah and gold exchange rates as well as share prices in the banking sector from January 2020 to December 2023. The population of 30 banking sector companies according to the criteria of the Infobank15 index was taken with 10 company data taken as a purpose sampling source ([www.idx.co.id](http://www.idx.co.id)) Descriptive analysis was carried out to describe the research data. Using multiple linear regression analysis techniques, it is used to test the influence of several independent variables on one dependent variable with metric data types (Interval or Ratio). The assumption test consists of normality, linearity, multicollinearity, autocorrelation and heteroscedasticity tests (Mulyanto and Wulandari, 2010). Multiple linear regression equation model:

$$Y = a + b_1X_1 + b_2X_2$$

X1 = Rupiah Exchange Rate

X2 = Gold

Y = Banking sector stock index (infobank15 index)

a = Constant

b1 = Regression Coefficient of Rupiah Exchange Rate

b2 = Gold Regression Coefficient

### RESULT AND DISCUSSION



Figure 1. Info bank Banking Sector Historical Chart15  
Source: [www.Tradingview.com](http://www.Tradingview.com), access (2024)

Based on the chart, it can be seen that the stock price index fluctuated in 2020 by 800.00. In 2021, it was 1,080, an increase of 220.00. In 2022 it will be 1,200, so there will be an increase from 2021 and 2022 of 1,120. The movement of the banking sector index will continue to increase until 2024. So, an investor can analyze what indicators determine the movement of the composite stock price index by looking at the movement of the graph. Researchers use fundamental analysis by assessing and observing various sectors, namely using a top-down approach. Top-down is an approach in controlled decision-making efforts starting (from top to bottom) in solving complex problems down to the sub-small ones. In this way, a distinction is made that describes a financial market

Table 2. Descriptive Statistics Results

	N	Minimum	Maximum	Mean	Std. Deviation
Rupee rate	36	13895	15665	14991.28	413.239
Gold	36	1520	1985	1783.42	106.406
Banking Sector	36	698.000	1006.000	863.54633	95.898403
Valid N (listwise)	36				

Source: SPSS Data Processing Results 26, 2024

Descriptive statistics show that the minimum value of the rupiah exchange rate is 13,895, the maximum value is 15,665 and the average value is 14,991 with a standard deviation of 413.239. The Gold variable has a drinking value of 1783.42, a maximum value of 1,985, an average value of 1783.42 with a standard deviation of 106,406. Banking sector with a minimum value of 698.0 and a maximum value of 1006.0 and an average value of 863.546 with a standard deviation of 95.898.

### Normality Test

Fact normality test and its function in testing the regression model, in variables that have disturbed or balanced residual values (Sig) (Ghozali, 2018) normality of data accuracy used in this analysis is distributed normally or not normally with the method used is the Kolmogorov-smirnov test (K-S Test) looks at the possibility of the highest level starting from 0.05 ( $\geq 0.05$ ). The Normality Test in this study used the Kolmogorov Smirnov Test. The results are explained in the table below:

Table 3. Normality Test Results

#### One-Sample Kolmogorov-Smirnov Test

		Rupee rate	Gold	Banking Sector
N		36	36	36
Normal Parameters <sup>a,b</sup>	Mean	14991.28	1783.42	863.54633
	Std. Deviation	413.239	106.406	95.898403
Most Extreme Differences	Absolute	.120	.133	.138
	Positive	.120	.072	.115
	Negative	-.096	-.133	-.138
Test Statistic		.120	.133	.138
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>	.107 <sup>c</sup>	.081 <sup>c</sup>

Source: SPSS Data Processing Results 26, 2024

The normality test results presented in Table 2 show that the value Kolmogorov-Smirnov (K-S) is 0.120 while the value Asymp. Sig. (2-tailed) of 0.200. These results show that the regression equation model is normally distributed, because the value Asymp. Sig. (2tailed) 0.200 is greater than the value  $\alpha = 0.05$

### Multicollinearity Test

The multicollinearity test is an analytical tool for testing whether the regression model has correlation with the independent variables. (Ghozali, 2018). If there is a high level of correlation with the independent variable, then there is variation in the dependent variable and the independent variable will change due to disturbances. The regression mode does not have multicollinearity conflicts. Multicollinearity is seen in the limit/tolerance and VIF columns. To be free from multicollinearity problems. Tolerance value  $\geq 0.10$  ((Ghozali 2018).

Table 4. Multicollinearity Test Results

Model		Coefficients <sup>a</sup>						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1506.807	580.614		2.595	.014		
	Rupee rate	-.017	.044	-.072	-.376	.709	.765	1.307
	Gold	-.221	.172	-.245	-1.284	.208	.765	1.307

a. Dependent Variable: Banking Sector

Source: SPSS Data Processing Results 26, 2024

The multicollinearity test results presented in Table 3 show that the value tolerance of the Rupiah Exchange rate variable, and Gold is more than 0.10 and the VIF value of these variables is less than 10. This means that the model used does not occur multicollinearity

### Test Heteroscedasticity

Heteroscedasticity is in the form of various variables that are different from the total being studied and the level of error in a structured relationship has reached a magnitude of one or more than the independent variable, and the error is not random. The character used when referring to having heteroscedasticity or not having heteroscedasticity is in the observation datum and is explained by the significance coefficient. The significance coefficient must be compared from the  $\alpha$  level that has been determined (before), namely (Always 5%). If the significant coefficient (probability number) high a  $\alpha$ /alpha has been determined, then heteroscedasticity can be demonstrated. This method is used to test to determine whether there is or has not been heteroscedasticity in the research. Test results using the Glejeter method. This Glejeter test is done by regressing the absolute residual value as the dependent variable. Judging from the possibility of significance above the accurate level of 5%. It was concluded that the regression model did not contain heteroscedasticity (Ghozali, 2018)

Table 5. Heteroscedasticity Results (Glejser Test)

Model		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-10.182	308.595		-.033	.974
	Rupee rate	.006	.024	.051	.258	.798
	Gold	-.002	.091	-.005	-.025	.980

a. Dependent Variable: abs\_res

Source: SPSS Data Processing Results 26, 2024

The heteroscedasticity test results presented in Table 4 show that the Sig. of the Rupiah Exchange rate variable is 0.798 and Gold is 0.980. Thus, this model does not have symptoms of heteroscedasticity.

### Autocorrelation Test

Autocorrelation is a well-known relationship with serial correlation and findings from data/facts in the form of time series. The aim of the autocorrelation test is to measure in regression mode whether there is a correlation between

the barrier error in period  $t$  and the error/error in the previous period  $t-1$ . If a correlation is found, it can be said that the cause is an automatic relationship. Autocorrelation arises as a result of continuous all-time research observations. The cause occurs due to residuals (errors from independent barriers from one observation to another. (Ghozali, 2018). Testing can be done with the DW-Test (Durbin Watson) for first order autocorrelation and requires an intercept (constant).) on the regression mode and haven't lag variable among independent variables.

The hypothesis to be tested is:

H0: does not have autocorrelation ( $r = 0$ )

HA: has autocorrelation ( $r \neq 0$ )

Table 6. Autocorrelation Test Results

Change Statistics					Durbin-Watson
R Square Change	F Change	df1	df2	Sig. F Change	
.000	.000	2	33	1.000	1.648

Source: SPSS Data Processing Results 26, 2024

The results of the autocorrelation test in Table 5.5 above can be seen that the value Durbin- Watson is 1,648, with a sample size of 36 (n), the number of independent variables is 2(K=2) in the formula,  $d_u$  is smaller than  $d_w$  is smaller than  $2-d_u$ . So, it can be concluded that there is no autocorrelation.

### Uji F

The F test is used to test the regression effect mode of all independent variables, namely: X1, The F test, namely the eligibility mode (goodness of fit) test, must be applied in linear regression analysis. The F test is useful when calculating the eligibility of the regress mode that has been created. If the significance level is less then 0.05 then the independent variable is used to predict the dependent variable. When analyzing a simple linear relationship, the significance result of the F test must be the same as the value with the partial significance test or T test (Ghozali, 2018)

Table 7. F Test Results

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	2	.000	.000	1.000 <sup>b</sup>
	Residual	295435.785	33	8952.600		
	Total	295435.785	35			

a. Dependent Variable: Unstandardized Residual

b. Predictors: (Constant), Gold, Kurs Rupiah

Source: SPSS Data Processing Results 26, 2024

Based on Table 6, it is known that the F-Test value with a significance of 0.000 is smaller than 0.05, so this means that the Rupiah Exchange Rate (X1), Gold (X2) variables simultaneously influence the banking sector stock index (infobank15 index).

### Uji T

Table 8. T Test



Coefficients<sup>a</sup>

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.684E-14	580.614		.000	1.000
	Ruppee rate	.000	.044	.000	.000	1.000
	Gold	.000	.172	.000	.000	1.000

a. Dependent Variable: Unstandardized Residual

Source: SPSS Data Processing Results 26, 2024

Based on Table 7 above, it can be explained as follows: 1) The influence of the Rupiah exchange rate on banking sector shares. The Info bank 15 Index (X1) has a regression coefficient value of 0.044 and a calculated t value of 00.00, while the significance value of 1.000 is greater than 0.05 which means that the Rupiah exchange rate has a positive effect on banking info bank index 15, so H1 is accepted. 2) The effect of Gold on the Info bank Index 15 (X2) has a regression coefficient value of 0.172 and a calculated t value of 00.00, while the significance value of 1.000 is greater than 0.05, so H2 is accepted.

### Determination Coefficient Test

The coefficient test value is between 0 and 1. The value (R<sup>2</sup>) is minimal, meaning that the level of ability of the independent variable variance can reveal an unlimited portion of the dependent variable variance. A number that is almost worth 1 means that all independent variables are close to explaining all the data provided when calculating the variance of the dependent variable. In the global scope, the determinant coefficients at the same time have very minimal variance in their own observations.

Table 9. Results Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.287 <sup>a</sup>	.082	.027	94.618178

Source: SPSS Data Processing Results 26, 2024

Based on the results of calculations using the SPSS 26 program, it can be seen that the Adjusted R Square shows a value of 0.27. This means that 27 percent is explained by the banking sector variable (info15 index) the rest is from other variables, namely the rupiah and gold exchange rates, amounting to 73 percent which is not explained in this research.

## CONCLUSION

Based on the research that has been obtained and the results of research analysis or discussion:

1. The Rupiah exchange rate has a positive effect on the banking sector index in 2020-2022 with a significance value of 0.003. This can happen because when the Rupiah exchange rate increases, domestic investors are more likely to sell with the assumption that they will make a profit when the Rupiah exchange rate increases and becomes stable again. Investors who purchase shares on the IDX will cause an increase in share prices, so that the banking sector index will increase.



2. Gold has a significant positive effect on the 2020-2022 period, as evidenced by the results of the t test for the gold index variable with a calculated t result of  $0.172 > t$  table with a significance of 1.00. For banking sector index investors, they pay more attention to movements in the inflation rate and Antam gold prices, because these variables show an influence on PT share prices. Aneka Tambang Tbk after carrying out this testing or research

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