

# The Effect of Return on Assets (Roa), Earnings Per Share (Eps), Current Ratio (Cr) and Rupiah Exchange Rate on Usd on Pt. Bank Central Asia Tbk for the Period 2013-2022

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**Abstract.** The banking industry is essential to the economic growth of a nation. When evaluating a company's performance, the stock price is a crucial metric that investors must take into account before making an investment. The rise in share prices, which is subject to several influences, reflects the increase in shareholder wealth. The goal of this research is to ascertain how PT. Bank Central Asia Tbk would be affected by Return on Assets (ROA), Earnings Per Share (EPS), Current Ratio (CR), and Rupiah Exchange Rate on USD between 2013- 2022. This study's methodology takes a quantitative approach. The financial statements of PT. Bank Central Asia Tbk for the years 2013–2022 served as the sample. using information gathered from the websites of IDX, Bank Indonesia, Bank Central Asia, and Tbk. Using t and f tests, multiple linear regression analysis, classical assumption tests, descriptive statistical tests, and coefficients of determination (R<sup>2</sup>), data analysis and hypothesis testing are conducted. The study's findings largely indicate that while EPS influences stock prices, ROA, CR, and the USD exchange rate of Rupiah have little effect on stock prices. The share price of PT Bank Central Asia, Tbk is affected by ROA, EPS, CR, and the USD exchange rate of rupiah, as demonstrated concurrently.

Keywords: Return On Assets (ROA), Earning Per Share (EPS), Current Ratio (CR), Rupiah Exchange Rate, Stock Price.

# 1 Introduction

An economic problem faced by everyone in the current economic problem everyone faces in the current era of globalization, investment is an essential solution to meet economic needs. In addition, indicators of a country's economic growth can be observed through fluctuations that occur in investment activities [1]. One of them is investment in the banking sector, investment in the banking sector is caused by the significant influence of banking companies on the financial system and economic stability. Investment activities that can be carried out in the banking sector include buying and selling stocks and bonds. Stock trading allows investors to invest both short-term and long-term because banking stocks, from time to time, still have a positive outlook, with the performance of bank issuers increasing from year to year [22]. Therefore, investors should monitor fluctuations and factors that can affect stock prices to avoid losses. This stock price is essential in investing because investors will be interested in buying shares of companies that perform well and can increase the Company's stock price. That can

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be seen from trading data on the Indonesia Stock Exchange (IDX), which displays stock rankings based on several categories: Top Market Cap and Top Trading Value. In this trading data, several banking sector stocks, namely BBCA, BBRI, BMRI, and BBNI, ranked in the top 10. In fact, BBCA's shares were ranked first in the top market capitalization category with a nominal value of IDR 1.123 trillion (11.33%) [23]. Nevertheless, BBCA's only drawback is that its share price is too high because PT. Bank Central Asia, Tbk continues to strengthen throughout the year. Based on RTI data in 2013, BCA's share price was Rp 9,600/share.

In 2014, BBCA's highest share price reached Rp 13,125/share. In 2015, the stock price increased by Rp 13,300/share. In 2016, the share price reached Rp 15,500/share. BCA's shares soared further in 2017, reaching Rp 22,750/share. In 2018, BBCA's share price was Rp 26,975/share, while in 2019, BBCA's highest share price reached Rp 33,425/share. In 2020, BBCA's highest share price reached IDR 33,850/share, and in 2021, BBCA's highest share price reached IDR 36,600/share. At the same time, PT. Bank Central Asia Tbk started trading with a new nominal after implementing a 1:5 stock split. The Company's share price in 2021 was IDR 7,320 per share, and in 2022, the highest price of BCA's shares reached IDR 9,400/share [24]. Share price of PT. Bank Central Asia and other companies are never in a static state because they will continue to move up and down depending on the needs of Investors and the services provided by the Company, with factors that affect stock price movements, including micro fundamental factors, which can affect the success of the Company. This factor is expressed by company performance indicators reflected by financial ratios and macroeconomic factors that can affect price movements in stocks; this is measured from many factors, one of which is the exchange rate of the Rupiah to the USD [8].

Microfundamental elements are those that originate from within the organization. The strong demand for the company's shares among investors, which will raise the stock price, is a sign of the company's high caliber of performance. Stock prices are influenced by profitability in the future, and the risks are borne by investors (Husnan et al., 2006) [13]. Therefore, when investing, investors must pay attention to the profitability ratio, while the ratios used in this study are Return on Assets (ROA) and Earnings Per Share (EPS).

Return On Assets (ROA) is the statistical measure of a company's capacity to produce net income relative to its total assets. Because the greater the percentage of ROA held, the more appealing the company is as an investment possibility, ROA might serve as a signal for an investor to think about making a purchase in the company. So, the Company is already very productive in generating net profit, which will be a reference in dividend distribution for shareholders. Earnings Per Share (EPS) is the profit per share issued. Because the EPS value describes the benefits that shareholders are entitled to from each share they own, a high EPS value will arouse investors' interest in investing their money.

Next, we look at another micro-fundamental: a company's liquidity, or its ability to pay off its short-term debt. One such ratio is the Current Ratio (CR), a measure of liquidity that compares a company's short-term assets to its short-term debts. You might think of the CR as a proxy for the company's liquidity, or its capacity to meet its shortterm obligations with the money on hand. According to Altman (1968) and Susilawati (2005), this financial ratio of profitability and liquidity can predict a company's bank-ruptcy. Investors can use both of these ratios to assist in choosing investments, and it is essential to estimate the longevity of a company [6].

Macroeconomic factors are external factors for companies that are difficult to control, such as the Rupiah Exchange Rate to USD, which can affect the ups and downs of stock prices. The stock price will increase proportionately to the increase in the rupiah exchange rate on the USD and vice versa. An accurate stock valuation can minimize risk while helping investors get profits (Prasetioningsih et al., 2018) [5].

Signalling theory (Brigham & Houston, 2001) indicates that in order to eliminate information asymmetry, corporations must communicate financial statement information to external parties, which lends support to the explanation of fundamental elements. Specifically, the Company is more informed than outsiders about the

Company and its prospects. Signaling theory and macroeconomic issues are related in that an increasing exchange rate will make it more difficult for a corporation to pay off its debt in the future because rising exchange rates are accompanied by rising interest rates and debt. The structure of external debt will change due to the decline in the value of the Rupiah compared to the USD. Therefore, information in the financial statements and the exchange rate of Rupiah and USD will be reliable signals that reduce uncertainty about the Company's prospects and influence investors' investment decisions, which will impact stock prices [10].

Research on the Company's fundamental factors on stock prices has been widely conducted. Previous research showed that ROA significantly influences stock prices (Jessica et al., 2021) [4]. However, different findings (Tri et al. & Istiqomah. 2022) stated that ROA, DER, and CR did not have a significant influence, but EPS had a significant influence on stock prices [7]. Research (Febdwi et al. Siregar. 2023) states that CR DER has a significant influence. However, PER, EPS, and company size do not significantly influence stock prices [3]. According to research (Agus Saeful1, Ida Rapida & Nur'aeni. 2021) on the relationship between stock prices and the rupiah exchange rate in the USD, stock prices are significantly impacted by the rupiah exchange rate [2]. In contrast to (Jessica et al., 2021), which claims that the Interest Rate Rupiah Exchange Rate to USD, inflation has little to no impact on stock values [4].

Tahun	Laba Sebelum Pajak (Jutaan)	Total Aset Lancar (Jutaan)	Total Aset (Jutaan)	Laba Ber- sih Setelah Pajak (Jutaan)	Total Kewajiban Lancar (Jutaan )	Jumlah Saham Yang Beredar (Rp)	Harga Saham (Rp)
2013	17.816.000	435.309.000	496.849.000	14.256.000	409.486.000	24.655.010.000	9.6
2014	20.741.000	483.945.000	553.156.000	16.512.000	447.906.000	24.655.010.000	13.125
2015	22.657.000	527.407.000	594.373.000	18.036.000	473.666.000	24.655.010.000	13.3
2016	25.839.000	604.049.000	676.739.000	20.632.281	530.134.000	24.655.010.000	15.5

 Table 1. Annual Report PT Bank Central Asia, Tbk. Data processed

2017	29.159.000	672.235.000	750.320.000	23.321.150	581.115.000	24.655.010.000	21.9
2018	32.707.000	734.401.000	824.788.000	25.852.000	629.812.000	24.655.010.000	26
2019	36.289.000	818.694.000	918.989.000	28.570.000	689.980.000	24.655.010.000	33.425
2020	33.568.507	1.005.423.000	1.075.570.000	27.147.000	834.284.000	24.655.010.000	33.85
2021	38.841.174	1.225.418.000	1.228.345.000	31.440.000	968.607.000	123.275.050.000	7.32
2022	50.467.033	1.173.144.000	1.314.731.000	40.756.000	1.030.452.000	123.275.050.000	9.4

Based on the phenomenon of stock price trading data and financial statement data, Profit Before Tax, Total Current Assets, Total Assets, Net Profit after tax, Number of Outstanding Shares and Share Prices at PT Bank Central Asia Tbk in 2013-2022, which have increased every year, and there are still inconsistencies in research results from previous studies that state that there is an influence or no effect on ROA, EPS, CR, and Rupiah Exchange Rate on USD to Share Price. Therefore, researchers are interested in conducting further research on "Return on Assets (ROA), Earnings Per Share (EPS), Current Ratio (CR), and Rupiah Exchange Rate on USD Against Share Price of PT. Bank Central Asia Tbk for the 2013-2022 period."

# 2 Literature Review

## 2.1 Signalling Theory

Signal Theory discusses how, ideally, a company communicates with those who use its financial statements. This idea clarifies why businesses wish to send or give external parties information pertaining to the company's financial statements. Information asymmetries between external parties and corporate management are the basis for the desire to submit or offer information pertaining to financial statements for external parties (Bergh et al., 2014) [9]. The financial ratio and the Rupiah exchange rate to the USD are micro and macroeconomic indicators of a company, which are signals or indications that would effect profit growth. This is why signal theory and this research are related. As a result, investors are able to assess the company's performance and offer assurance regarding its prospects for future sustainable growth.

# 2.2 Share Price

According to Jogiyanto (2009), stock price is the value of stock prices that occur in the stock exchange market at a specific time set by market participants and is determined by the level of demand and supply of shares in the capital market [15].

#### 2.3 Return On Asset (ROA)

According to Murhadi (2013), the Return on assets indicates the degree to which profits are produced for each unit of currency invested in assets. [19]. Here is the formula for calculating ROA:

$$ROA = \frac{Profit After Interest and Tax}{Number of Assets} \ge 100\%$$

#### 2.4 Earnings Per Share (EPS)

The Earnings Per Share (EPS) ratio is a ratio that describes the profit that shareholders receive on each share they own. Here is the formula for calculating EPS according to (Kasmir, 2012) [17]:

$$EPS = \frac{Net \ Profit}{Number \ of \ Common \ Shares \ Outstanding}$$

#### 2.5 Current Ration (CR)

The current ratio is an indicator used to assess the ability of a company to meet shortterm obligations using existing assets. (Kasmir, 2018) current ratio calculated with the formula [18]:

$$CR = \frac{Total \ Current \ Assets}{Current \ Debt}$$

#### 2.6 Rupiah Exchange Rate

According to Sukirno (2015), the Rupiah Exchange Rate is the amount of local currency needed to purchase one foreign currency [20]. The formula employed in this investigation is the middle-value formula, and it looks like this:

$$Rupiah Exchange Rate = \frac{Selling rate + Buying rate}{2}$$

# 2.7 Hypothesis Development



Fig. 1 Hypothesis Framework

**The Effect of Return on Asset (ROA) on Stock Prices.** Previous research by (Jessica, Michelle, and Wirda. 2021) indicates that this ratio is a good indicator of a company's capacity to turn a profit from its assets. Stock prices are found to be highly affected by Return On Assets (ROA). When the ROA increases, the Company generates a net profit more significant than every dollar invested in its total assets [4]. In previous explanations and research, hypotheses that can be proposed are:

H1: Return On Assets (ROA) influences stock prices

The Effect of Earnings Per Share (EPS) on Stock Prices. This ratio measures the net profit obtained in each spread share, according to previous research conducted by (Tri et al. and Istiqomah, 2022) [7]. The results concluded that Earnings Per Share (EPS) significantly influences stock prices. This means that EPS can reflect potential future profits because high EPS shows that the Company can generate profits in line with investor expectations. This encourages investors to be more interested in investing in the Company so that it can increase the stock price. In previous explanations and research, hypotheses that can be proposed are:

H<sub>2</sub> : Earnings Per Share (EPS) influences stock prices The Effect of Current Ratio (CR) on Stock Price

*This ratio was developed from previous studies to evaluate.* an organization's ability to pay its short-term obligations with its current assets (Tri et al., and Istiqomah, 2022) [7]. According to the results of the research, the effect of the Current Ratio (CR) is marginal at best. This indicates that there is little association between CR and stock price; a fall in CR might result in an increase in stock price, and vice versa. According to earlier studies and explanations, the following theories could be put forth:

H3: Current Ratio (CR) influences stock prices

The Effect of Rupiah Exchange Rate on USD on Stock Price. This fluctuating change in currency value, driven by the weakening of foreign currencies, significantly impacts the way

imported goods are paid for and can increase foreign currency spending. This impact can increase the Company's operating costs and decrease stock value, according to

previous research conducted by (Agus, Ida &; Nur'aeni, 2021) [2]. The results concluded that the Rupiah Exchange Rate on the USD has a significant influence on stock prices. In previous explanations and research, hypotheses that can be proposed are:

H4: The exchange rate of the Rupiah against the USD has an influence on stock prices

The effect of ROA, EPS, CR, and Rupiah Exchange Rate on USD on stock prices. Based on the four hypotheses proposed, each Variable influences the Company's profit growth by increasing stock prices. Several variables show a strong positive impact on profit growth as the ratio value increases. Conversely, the lower the value of the ratio variable, the lower the impact on profit growth in increasing stock prices. In addition, in terms of foreign exchange rates, stock prices often fall when the value of the currency increases and vice versa. Therefore, combining these factors in a simultaneous analysis will provide a deeper understanding of how these factors interact with each other in influencing stock prices. With this explanation, the hypotheses that can be proposed are:

H5 : Return On Assets (ROA), Earning Per Share (EPS), Curent Ratio (CR), and the Rupiah Exchange Rate on USD have a simultaneous influence on the Stock Price.

# **3** Research Methods

This study uses quantitative methods because of statistical data in the form of numbers obtained from financial statement data, data analysis, and hypothesis testing in this study with the help of SPSS 27 data processing. To obtain research data, researchers use documentation study research, which is a data collection technique carried out by collecting information based on previously available tangible data sources, such as the financial statements of PT Bank Central Asia, Tbk and rupiah exchange rate data contained in Bank Indonesia from 2013-2022.

#### 3.1 Place and Time of Research

This research was conducted at PT Bank Central Asia Tbk by utilizing the annual report on the official website of BCA, the Indonesia Stock Exchange (IDX), and the website of Bank Indonesia to obtain information on the Rupiah Exchange Rate.

# 3.2 **Population and Sample**

• *Population.* According to Sugiyono (2018:130), the term "population" refers to an object or subject that has been determined by researchers to have specific qualities in order to be examined and conclusions taken from [21]. The Financial Statements at PT. Bank Central Asia and the Rupiah Exchange Rate data make up the study's population.

• *Sample.* According to Sugiyono (2018: 131), the sample is a subset of the population, the population is made up of different characteristics, and the sample is the source of data utilized in research [21]. The income statement and statement of financial position from PT. Bank Central Asia Tbk's financial statements for the years 2013-2022 are the samples used. Data on the Rupiah exchange rate in USD is computed using the average Rupiah exchange rate because selling and buying values are equivalent in the macroeconomy. Data on exchange rates are derived from the years 2013-2022.

# 3.3 Types of research

This study used time series data for 2013-2022 (10 years). Time series data analysis is an analysis that explains and measures various changes or developments in data over a certain period (Hasan, 2002) [14]. Time series analysis is performed to obtain time series data patterns using past data that will be used to predict future values.

## 3.4 Data sources

Data sources were obtained from the internet on the IDX (www.idx.go.id), Bank Central Asia (www.bca.co.id), and Bank Indonesia (www.bi.go.id) pages.

## 3.5 Data analysis techniques

The SPSS 27 application is a medium/tool utilized in this study's data analysis technique to assist in the analysis of the data. Descriptive statistical tests, multiple linear regression analysis, classical assumption tests, T, F, and determination coefficient tests were used in the data processing and testing.

**Descriptive Statistical Test.** Descriptive statistics are used to analyze data by interpreting data collected due to a decision without drawing general conclusions (Ghozali, 2016) [11]. The presentation of descriptive statistical data is often in a diagram or table. Values for mean, median, maximum, minimum, and standard deviation are all included in descriptive statistical analysis. Giving a summary of the frequency distribution of the variables is the main goal of descriptive statistical analysis. *Classical Assumption Test.* Verification of classical assumptions is essential for statistical analysis in multiple linear regression using Ordinary Least squares (OLS). To guarantee that the resulting regression model is objective and reliable in terms of its ability to produce accurate estimates. Then, it is necessary to test classical assumptions (Juliandi et al., 2014) [23].

*Normality test.* According to Ghozali (2016), a normality test is performed to determine whether, in a regression model, the independent variable, the dependent variable, or both follow the normal distribution. If a variable does not adhere to the normal distribution, it can decrease the reliability of statistical tests. The normality test for data can be performed using the Kolmogorov-Smirnov One Sample test, where the criteria are as follows: if the significance value is more excellent than 5% or 0.05, the data is considered to have a normal distribution. Conversely, if the Kolmogorov-Smirnov One Sample test produces significance values below 5% or 0.05, the data is considered to have no normal distribution [11].

*Heteroscedasticity test.* This test aims to examine whether there is a variation in discomfort in the residuals from one observation to another within a regression model. When there is a different variance, it is called heteroskedasticity. One way to determine the presence of heteroskedasticity in a multiple linear regression model is by inspecting scatterplots. If there is no discernible pattern and the points are evenly dispersed above and below zero on the y-axis, it can be concluded that there is no heteroskedasticity. For a well-constructed research model, the absence of heteroskedasticity is desirable (Ghozali, 2016) [11].

*Autocorrelation test.* A regression model can be considered good when it is free from autocorrelation. Autocorrelation can arise due to sequential observations related to each other (Ghozali, 2016) [11]. The most common technique using Durbin-Watson is used in performing autocorrelation tests. Another option is to evaluate probabilities. If Durbin-Watson values are more significant than 0.05, the model has no substantial autocorrelation.

*Multicollinearity test.* According to Ghozali (2016), the purpose of testing for multicollinearity is to examine whether there is a correlation among the independent variables in a regression model [11]. Multicollinearity is achieved when the Variance Inflation Factor (VIF) is less than 10 and the tolerance value is more than 0.10.

*Multiple Linear Regression Analysis.* Multiple linear regression analysis is a form of regression analysis that takes into account a large number of independent variables. The impact of the independent variable on the dependent variable was determined using multiple linear regression analysis (Ghozali, 2018) [12]. The purpose of this research is to examine the relationship between ROA, EPS, CR, and the USD Rupiah Exchange Rate and the dependent variable (stock price). Below is an equation you can use:

- Y = a + b1X1 + b2X2 + b3X3 + ie
- Y = Bound variable (Stock Price)
- $X_1$  = Variable independent to one (ROA)  $X_2$  = Second independent Variable (EPS)
- X<sub>3</sub> = Third independent Variable (CR)
- X<sub>4</sub> = Fourth independent Variable (Rupiah Exchange Rate on USD)
- a = Constant
- b =Regression coefficient of the independent Variable
- e = Standard error

**Test T (Partial.** According to Ghozali (2016), the t-test indicates the extent to which the influence of one independent variable individually explains the variation of the dependent variable [11]. The model has a significant influence if the probability value of the finding shows significance less than 0.05. In addition, with a significance level of  $\alpha = 0.05$ , we can compare the t-count value with the t-table value. In the context of hypotheses, there are two statements, namely:

• Ho = 0 states that the independent variable has no significant effect on the dependent variable.

•  $Ha \neq 0$  states that the independent variable has a significant effect on the dependent variable.

The test criteria are:

• Ho is rejected, and Ha is accepted if t is calculated > t- table and ( $\alpha$ ) < 0.05. That shows that variable X partially has a significant effect on variable Y.

• Ho is accepted, and Ha is rejected if t is calculated < t- table and ( $\alpha$ ) > 0.05. That shows that variable X has no significant effect on variable Y.

*Test F (Simultaneous).* According to Imam Ghozali (2016), it is used to determine whether there is a significant influence jointly or simultaneously of the independent variable on the dependent variable [11]. With a Significant rate of  $\alpha = 0.05$ . The test criteria are:

• Ho was denied Accepted; considered significant if  $(\alpha) < 0.05$  and F calculate > F table. That indicates that the dependent variable (Y) is significantly influenced by the independent variables (X) when they are present together (simultaneously).

• Ho was granted Ha is deemed insignificant and rejected if F calculate < F table and ( $\alpha$ ) > 0.05. That indicates that the dependent variable (Y) is not significantly impacted by the independent variables (X) taken jointly (simultaneously).

*Coefficient of Determination Test (R<sup>2</sup>).* According to Imam Ghozali (2016), the Coefficient of Determination (R<sup>2</sup>) test measures the extent to which the model can explain variations in the dependent variable [11]. The coefficient of determination has a range of 0 to 1, or  $0 < R^2 < 1$ . The ability of all independent variables to explain changes in the dependent variable's value decreases if the coefficient of determination is near zero.

# 4 Analysis and Discussion

#### 4.1 Descriptive Statistical Test

The results of data processing are described in general by describing data with descriptive statistics. The description of the data is carried out with the minimum, maximum, mean and standard deviation values for each variable.

	Ν	Min	Max	Mean	Std. Deviation
ROA (X1)	10	27	48	35,30	6,308
EPS (X2)	10	210	945	500,70	283,300
CR (X3)	10	106	129	115,30	6,567
Nilai tukar Rp pada USD (X4)	10	15703	22343	20217,70	2042,444
Harga Saham (Y)	10	5200	21900	10793,00	5166,578

Table 2. Descriptive Statistical Test Results, Secondary data processed through SPSS

Based on PT. Bank Central Asia, Tbk. descriptive statistical test findings. The descriptive test findings above indicated that the amount of data (N) used in this study was 10 data samples. The data was collected between 2013-2022. Values of the variable averaged:

- 1. ROA of 35.30. The highest variable ROA value was 48 in 2016, while the lowest value was 27 in 2020. The standard deviation value of ROA is 6.308, which means it is below the average. With a mean value more significant than the standard deviation, this shows quite good results.
- 2. EPS of 500.70. The highest variable EPS value was 945 in 2017, while the lowest value was 210 in 2018. The EPS standard deviation value is 283,300, which is below average. With a mean value more significant than the standard deviation, this shows quite good results.
- 3. CR of 115.30. The highest value of the variable CR was 129 in 2017, while the lowest value was 106 in 2013. The CR standard deviation value is 6.567, which means it is below the average. With a mean value more significant than the standard deviation, this shows quite good results.
- 4. The Rupiah exchange rate in USD is 20217.70. The highest value was 22343 in 2022, while the lowest value was 15703 in 2013. The standard deviation of the Rupiah Exchange Rate in USD is 2042.444, which means below average. With a mean value more significant than the standard deviation, this indicates that the data used on the exchange rate variable is close to the mean value. In this situation, the exchange rate variable has the potential to weaken and become a consideration for investors to buy shares. The Share Price is 10793.00. The highest Share Price variability value was 21900 in 2017, while the lowest value was 5200 in 2018. The standard deviation value of the Share Price of 5166.578 is above average. With a mean value more significant than the standard deviation, the standard deviation, the standard deviation value of the Share Price of 5166.578 is above average. With a mean value more significant than the standard deviation, the standard deviation, the standard deviation, the standard deviation value more significant than the standard deviation, the standard deviation the standard deviation, the standard deviation the standard deviation, the standard

this shows that data tends to converge in the range of mean values. That indicates stock price variations that occur between ROA, EPS, CR, and the exchange rate of Rp on the USD.

#### 4.2 Multiple Linear Regression Analysis

 Table 3. Multiple Linear Regression Test Results Coiefficiientsa , Secondary data processed through SPSS

Model		Unstan Coef	Standardized Coefficients	
		В	Std. Error	
1	(Constant)	-17022,081	7567,968	
	ROA	-126,660	106,166	-0,155
	EPS	20,074	2,579	1,101
	CR	174,063	68,726	0,221
	Nilai tukar Rp pada USD	0,107	0,229	0,042

Based on the table above, the regression equation obtained is : Stock Price (Y) = -17022,081 - 1266,660 (ROA) + 20,074 (EPS) + 174,063 (CR) + 0,107Exchange Rate Rp to USD) + e

#### 4.3 Classical Assumption Test

#### Normality Test

Table 4. Normality Test Results One-Sample Kolmogorov-Smirnov Test, Secondary data

	Unstandardized Residual
Test Statistic	.154
Asymp. Sig. (2-tailed) <sup>c</sup>	.200 <sup>d</sup>

Asymp.Sig. (2-tailed) of 0.200 is the result of the data normalcy test utilizing the Kolmogorov-Smirnov test. This number exceeds the significance threshold of  $\alpha = 5\%$ , or 0.05. If the Asymptotic Sig value is greater than  $\alpha$  in the context of the normality test, then there is insufficient statistical evidence to reject the null hypothesis (H<sub>0</sub>), which denotes that the data are normally distributed. Put otherwise, the test findings indicate that the data has a tendency to follow a normal distribution. Furthermore, this finding is corroborated by the Normal Probability Plot graph results, which are displayed below:



Fig. 2 Normality Test Graph, Secondary data processed through SPSS

Based on the graphic, It can be noticed that the points are evenly distributed around the diagonal line. That indicates that the study data tends to follow a normal distribution pattern. Therefore, these data have a reasonably close distribution to normal and are worth using in research.

#### Heterokedasticity Test



Fig. 3. Park Test Results, Secondary data processed through SPSS

The results of the heteroscedasticity test show that no pattern is significantly visible, and the data points are scattered around the number 0 on the Y-axis. Therefore, the regression model is otherwise sound and can be used because there is no significant heteroscedasticity.

#### Autocorrelation Test

# Table 5. Autocorrelation Test Results Model Summary<sup>b</sup>, Secondary data processed through SPSS

Model	R	R Square	Adjusted R	Std. Error of the	Durbin-Watson
1	.992ª	0,984	0,972	863,826	2,798

Based on the results of the autocorrelation test shows that the Durbin-Watson value is 2.798. This Durbin-Watson value is beyond the upper limit (dU) of 2.4137 and below the limit (4-dU), which is calculated as 4 - 2.4137 = 1.5863 (with significance levels of 0.05 and k = 4). These results suggest that the residual independence assumption is adhered to in regression models. Therefore, there is no significant correlation in the data used in the regression model.

#### Multicolinearity Test

Table 6. Multicollinearity Test Result Coiefficiienta, Secondary data processed through SPSS

Madal	<b>Collinearity Statistics</b>		
Widder	Tolerance	VIF	
ROA	0,185	5,409	
EPS	0,155	6,437	
CR	0,407	2,456	
Nilali Tukar Rupiah ke USD	0,379	2,641	

There was not significant, according to the regression model's multicollinearity test results. There was no substantial multicollinearity phenomena, according to the regression model's multicollinearity test results. To evaluate the lack of multicollinearity, we utilize the parameters of "tolerance" (less than 1) and "Variance Inflation Factor" (VIF) (less than 10). Each table independent variable has a tolerance value below 1, and the VIF is under 10. These variables are ROA (0.185), EPS (0.155), CR (0.407), and exchange rate (0.379). Therefore, the regression model that was applied shows no signs of multicollinearity.

## T-Test (partial)

Table 7. T Test Calculation Results Coiefficiientsa, Secondary data processed through SPSS

	Model	t	Sig.
1	ROA	-1,193	0,286
	EPS	7,785	0,001
	CR	2,533	0,052
	Nilai tukar Rp pada	0,468	0,660



The value of the t table must first be determined using the formula t = ( $\alpha/2$ ; n-k-1), where n is the number of samples utilized and k is the number of independent variables involved. This allows us to infer the t-test findings. Using a significance level of  $\alpha$  = 0.05 in this instance, we can compute the t table value as follows: (0.05/2; 10-4-1) = (0.025; 5) = 2.571 is the value of t. Using the computed table value, we can assess each variable's impact in the manner listed below:

1) Variable Return on Asset (X<sub>1</sub>) to Stock Price (Y): The result of the calculation shows a calculated value of - 1.193. This calculated value is smaller than the t table (- 1.193 < 2.571) and has a significance value of 0.286 > 0.05. That means that Ho is accepted and Ha is rejected. Partially, there is no significant influence between ROA and Share Price. These results are inconsistent with previous research by (Jessica, Michelle and Wirda Lilia in 2021), which found that there is a significant influence between ROA and Stock Price.

2) Variable Earnings Per Share (X<sub>2</sub>) to Share Price (Y): The calculated value of 7.785 indicates a significant influence. With a t count more excellent than the t table (7.785 > 2.571) and a significance value of 0.001 < 0.05, Ho and Ha are accepted. This shows that partially, tiers can have a significant influence between EPS and Share Price. This finding is consistent with previous research by (Tri, Yudha, Sri, & Istiqomah, 2022), which also showed a significant influence between EPS and Share Price

3) Variable Current Ratio ( $X_3$ ) to Stock Price (Y): The calculation results show a calculated value of 2.533. With a calculated value smaller than t table (2.533 < 2.571), and a significant value of (0.052 > 0.05). In this case, Ho is accepted, and Ha is rejected. That is, there is no significant influence between CR and Share Price. These results are inconsistent with previous research by (Febdwi Suryani, Tomi Sanjaya & Helly Aroza Siregar. 2023), which showed a significant influence between CR and Stock Price.

4) Variable Rupiah Exchange Rate in USD (X<sub>4</sub>) to Stock Price (Y): The calculation results show a calculated value of 0.468. With a calculated value smaller than the t table (0.468 < 2.571) and a significance value of 0.66 > 0.05, Ho is accepted, and Ha is rejected. That is, partially there is no significant influence between the Rupiah Exchange Rate on the USD and the Stock Price. This finding is inconsistent with previous research by (Agus, Ida, & Nur'aeni, 2021), which found a significant influence between the Rupiah Exchange Rate on the USD and Stock Prices.

## Test F (Simultan)

Table 8. F Test Calculation Results ANOVAa, Secondary data processed through SPSS

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	236,510,786,303	4	59,127,696,576	79,239	.000 <sup>b</sup>
1	Residual	3,730,973,697	5	746,194,739		
	Total	240,241,760,000	9			

The value of the F table can be calculated using the formula F = (k; n-k), where n is the total number of samples and k is the total number of independent variables. To find the value of Ftable F when n=10 and k=4, we plug in our values into the formula: F = (4; 10-4) = (4; 6) = 4.53.

The significance value is 0.000 and the Fcalculate value is 79.239, according to the percent result. Therefore, it can be said that Fcalculate's significance value (0.000) is significantly less than the predefined significance level (0.05) and that it is more than Ftable (79.239 > 4.53). As a result, Ha is approved, while Ho is rejected. That shows that all independent variables ROA, EPS, CR, and USD rupiah exchange rate significantly influence the dependent variable of stock price.

## Coefficient of Determination Test (R<sup>2</sup>)

 Table 9. Coefficient of Determination Test Result (R<sup>2</sup>) Modiel Summaryb ,Secondary data processed through SPSS

Model	R Square	Adjusted R Square	
1	0,984	0,972	

According to the coefficient of determination test findings, the correlation level, or R Square, is 98.4%, or 0.984. This suggests that the variables ROA, EPS, CR, and the Rupiah Exchange Rate in USD that have been examined may account for about 98.4% of the variation in the Stock Price variable. With an Adjusted R Square of 0.972, or 97.2%, reveals that as much as 97.2% of the variation in Stock Price can be adjusted by these variables after considering the number of variables used in the model. However, it is essential to note that approximately 100-97.2 = 2,8% of the variation in Share Price cannot be traced to the variables considered in this study. That indicates that there are other factors affecting the Stock Price that have yet to be included in the research.

# 5 Conclusion

1) The Effect of Return On Asset (ROA) on Stock Prices

The first hypothesis states that ROA does not significantly affect PT's share price. Bank Central Asia Tbk has a significance value of 0.286, higher than the predetermined significance level of 0.05. This means that changes in asset returns do not significantly affect changes in the stock price of each of these companies. This research does not align with the research (Jessica et al. in 2021) [4]. They argue that ROA has a significant influence on stock prices.

2) The Effect of Earnings Per Share (EPS) on Stock Prices

The second hypothesis is that partial EPS has a significant influence on the share price of PT. Bank Central Asia Tbk with a significance level of 0.001, lower than the

previously set significance level of 0.05. This means that the Company's ability to generate Earnings Per Share can increase the Company's stock price. The higher the Earnings Per Share value, the higher the Company's ability to benefit investors. It can be an attraction for investors to invest in the Company. These results support previous research (Tri et al., 2022) [7]. They argue that EPS has a significant influence on stock prices.

#### 3) The Effect of Current Ratio (CR) on Stock Price

The third hypothesis is that CR has no significant effect on PT. Bank Central Asia Tbk with a significance level of 0.052, higher than the previously set significance level of 0.05. The Current Ratio is a financial ratio that measures a company's ability to meet its short-term obligations. A high CR indicates that the Company can repay its short-term debts and continue its business activities. So that it attracts investors to buy company shares and impacts increasing stock prices. However, this theory must be proven in this study, which states that CR does not affect stock prices. This is estimated because investors assume a high CR value does not mean the Company is performing well. Because the high value of inventory can cause it. High inventory value will cause low company profits and cannot provide the expected return. Thus, CR is not used by investors considering their investments. This research does not align with the research (Febdwi et al. Siregar. 2023) [3]. They argue that CR has a significant influence on stock prices.

#### 4) The Effect of Rupiah Exchange Rate on USD on Stock Price

The fourth hypothesis tests the idea that PT. Bank Central Asia Tbk's share price is not significantly affected by the rupiah exchange rate versus the USD at a significance level of 0.660, which is higher than the initial significance level of 0.05. That is, exchange rate fluctuations do not affect the stock price of each Company because the exchange rate cannot be used as the primary reference in forecasting stock price fluctuations. This research does not align with the research (Agus et al., 2021) [2]. They argue that the rupiah exchange rate on the USD has a significant influence on stock prices.

#### 5) The Effect of ROA, EPS, CR, and Rupiah Exchange Rate on USD on stock prices

The fifth hypothesis is that ROA, EPS, CR, and the Rupiah's exchange rate in USD significantly influence PT's share price. Bank Central Asia Tbk. That is, the combination of these factors has a more significant influence on the increase in a company's share price than the influence of each factor individually.

The results show that investors are interested in investing in shares of PT. Bank Central Asia Tbk and investors should consider factors such as ROA, EPS, CR, and Rupiah exchange rate on USD from these factors against the stock price when making investment decisions. In addition, ROA, CR, and Exchange Rate changes may be less critical factors in evaluating PT Bank Central Asia, Tbk's share price.

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