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The Effect of Exchange Rate, Inflation and GDP Growth on The Share Price of The Mining Sub-Sector Listed on The Indonesia Stock Exchange

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Abstract. This study aims to analyze the influence of exchange rates, inflation, and Gross Domestic Product (GDP) growth on the share price of the mining sub-sector listed on the Indonesia Stock Exchange (IDX) for the 2020–2024 period. This study uses a quantitative approach with a multiple linear regression method, where secondary data is taken from the company's financial statements, Bank Indonesia, and the Central Statistics Agency. The results of the analysis show that the exchange rate has a significant positive influence on stock prices, while inflation has a significant negative influence. In contrast, GDP growth showed a negative but not significant influence on stock prices. Simultaneously, these three variables have a significant influence on the share price of the mining sub-sector. These findings indicate that exchange rate fluctuations can increase the income of export-based companies, while rising inflation tends to suppress corporate profit margins. Although GDP growth has a limited impact, the study emphasizes the importance of considering macroeconomic factors in investment decision-making. This research contributes to the capital market literature and can be a guide for investors to manage their portfolios more effectively.

Keywords: Exchange rate; Inflation, GDP growth; Stock price

A. INTRODUCTION

The capital market is one of the important instruments in a country's economy. Through the capital market, companies can obtain funds for business expansion and development, while investors can allocate their funds to get optimal returns. In Indonesia, the capital market has grown rapidly with a variety of investment instruments offered, including stocks, bonds, and mutual funds. One of the sectors that attracts investors' attention is the mining sector, given its important role in the Indonesian economy.

The mining sector in Indonesia includes various commodities such as coal, oil and gas, and other minerals. Stocks of mining companies listed on the Indonesia Stock Exchange (IDX)

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are often an investment option for investors looking for potential profits from commodity price fluctuations. However, stock prices in this sector are influenced by various macroeconomic factors, including exchange rates, inflation, and Gross Domestic Product (GDP) growth.

The exchange rate or currency exchange rate is one of the important factors that affect stock prices. Exchange rate fluctuations can affect a company's revenue and operating expenses, especially for companies involved in exports and imports. According to data from Bank Indonesia, the exchange rate of the Rupiah against the US Dollar has experienced significant fluctuations in recent years. For example, in 2024, the exchange rate of the Rupiah against the US Dollar will reach Rp 15,000 per USD, while in the previous year, the exchange rate was in the range of Rp 14,500 per USD. These fluctuations can have an impact on the performance of mining companies, most of which come from commodity exports.

Inflation is a condition in which there is a general increase in prices that can reduce the purchasing power of money. High inflation can increase a company's production and operating costs, which in turn can affect profitability and stock prices. Based on data from the Central Statistics Agency (BPS), the inflation rate in Indonesia in 2024 will reach 3.5%, an increase from 2.8% in 2023. This increase in inflation can affect investment decisions in the mining sector, as rising production costs can reduce companies' profit margins.

GDP growth is the main indicator of a country's economic health. Increasing GDP can increase people's purchasing power and demand for products and services, including mining commodities. Data from BPS shows that Indonesia's GDP growth in 2024 will reach 5.2%, an increase from 4.8% in 2023. These fluctuations in GDP growth can affect the performance of mining companies and their share prices.

This study aims to analyze the influence of exchange rates, inflation, and GDP growth on the stock prices of mining sub-sectors listed on the IDX. By understanding the relationship between these macroeconomic factors and stock prices, it is hoped that it can provide deeper insights for investors in making more informed investment decisions in accordance with market conditions.

In addition, this study also aims to evaluate the performance of mining sub-sector stocks in various economic conditions. Thus, this research can make a significant contribution to the capital market literature and assist investors in managing their investment portfolios more effectively.

B. LITERATURE REVIEW

The exchange rate or currency exchange rate is one of the important factors that affect stock prices. Exchange rate fluctuations can affect a company's revenue and operating expenses, especially for companies involved in exports and imports. According to the Purchasing Power Parity theory, changes in the exchange rate can affect the purchasing power and prices of goods and services in the international market. Research by Munib (2016) and Kewal (2012) shows that the exchange rate has a significant influence on stock prices. Fluctuations in the exchange rate of the Rupiah against the US Dollar can have an impact on the performance of mining companies, most of which come from commodity exports.

Inflation is a condition in which there is a general increase in prices that can reduce the purchasing power of money. High inflation can increase a company's production and operating costs, which in turn can affect profitability and stock prices. According to the Quantity Theory of Money, inflation occurs when the amount of money circulating in society exceeds the number of goods and services available. Research by Dwijayanti (2021) and Kurniawati (2015) shows that inflation has a significant negative influence on stock prices. High inflation can reduce a company's profit margins and reduce investor interest in investing in company stocks.

Gross Domestic Product (GDP) growth is the main indicator of a country's economic health. Increasing GDP can increase people's purchasing power and demand for products and services, including mining commodities. According to the Economic Growth Theory, GDP growth reflects an increase in economic output and productivity. Research by Indriani (2022) and Kewal (2012) shows that GDP growth has an influence on stock prices, although the

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results are not always significant. Fluctuations in GDP growth can affect the performance of mining companies and their share prices.

The stock price is the value formed in the stock market at a given time, which is determined by the actions of market participants. Stock prices reflect the value of stocks that occur because stocks are traded and always move up and down following the demand and supply in the stock market. According to the Efficient Market Hypothesis, stock prices reflect all the information available in the market. Research by Rahwamati et al. (2023) and Husna & Sunandar (2022) shows that stock prices are influenced by various factors, including macroeconomic conditions such as exchange rates, inflation, and GDP growth.

Previous research relevant to this topic includes: Munib (2016): Found that exchange rates have a significant influence on stock prices in the mining sector. Kewal (2012): Found that exchange rates and inflation have a significant influence on stock prices in the manufacturing sector. Dwijayanti (2021): Finding that inflation has a significant negative influence on stock prices in the financial sector. Kurniawati (2015): Finding that inflation has a significant negative influence on stock prices in the property sector. Indriani (2022): Finding that GDP growth has an influence on stock prices in the mining sector, although not always significant. This study aims to complement the existing literature by analyzing the influence of exchange rates, inflation, and GDP growth on the share prices of the mining sub-sector listed on the Indonesia Stock Exchange (IDX) during the 2020-2024 period. By understanding the relationship between these macroeconomic factors and stock prices, it is hoped that it can provide deeper insights for investors in making more informed investment decisions in accordance with market conditions.

C. RESEARCH METHODOLOGY

This study is a quantitative research that aims to examine the influence of independent variables (exchange rate, inflation, and GDP growth) on dependent variables (share prices of the mining sub-sector).

The approach used in this study is a survey approach using secondary data. Secondary data is obtained from the company's financial statements, annual reports, and relevant macroeconomic data.

Population: The population in this study is all mining sub-sector companies listed on the Indonesia Stock Exchange (IDX) during the 2020-2024 period.

Sample: The research sample was selected using the purposive sampling technique, which is a sampling technique based on certain criteria. The sample criteria in this study are:Mining sub-sector companies listed on the IDX during the 2020-2024 period. Companies that consistently publish annual financial statements during the research period. Companies that have complete data related to exchange rate variables, inflation, GDP growth, and stock prices. The research instruments used are secondary data obtained from: Financial statements and annual reports of mining sub-sector companies listed on the IDX. Data on the exchange rate of the Rupiah against the US Dollar obtained from Bank Indonesia. Inflation data obtained from the Central Statistics Agency (BPS). GDP growth data obtained from the Central Statistics Agency (BPS).

Data was collected through documentation techniques by accessing the official websites of the Indonesia Stock Exchange (www.idx.co.id), Bank Indonesia (www.bi.go.id), and the Central Statistics Agency (www.bps.go.id). The data that has been collected will be analyzed using the following statistical analysis techniques:

Descriptive Analysis: To provide an overview of the research variables, including mean values, standard deviations, maximum values, and minimum values. Classical Assumption Test: Includes normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test to ensure the data meets the requirements of regression analysis. Multiple Linear Regression Analysis: To examine the influence of exchange rates, inflation, and GDP growth on the share price of the mining sub-sector.

The regression model used is as follows:

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Y=β0+β1X1+β2X2+β3X3+εY = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon

YY = Mining sub-sector share price X1X_1 = Exchange Rate
X2X_2 = Inflation X3X_3 = GDP Growth
β0\beta_0 = Constant ε\epsilon = Error term
β1,β2,β3\beta_1, \beta_2, \beta_3 = Regression coefficient

Hypothesis Test: Using the t-test to test the influence of each independent variable on the dependent variable partially, and the F test to test the influence of the independent variable on the dependent variable simultaneously.

Coefficient of Determination (R^2) Test: To measure the model's ability to explain the variability of the stock price of the mining sub-sector affected by exchange rates, inflation, and GDP growth.

D. RESULT AND DISSCUSSION

Table 1 Panel Data Regression Results

Variable	Regression Coefficient	Std. Error	t-Statistic	Probability
Constant (C)	1.582.817	7.373.251	0.214670	0.8302
Exchange Rate (x1)	0.146257	0.042031	3.479.766	0.0006
Inflation (x2)	-7.832.002	3.262.153	-2.400.869	0.0170
GDP Growth (X3)	-1.258.006	3.404.391	-0.036952	0.9705

From the results of the table carried out, it can be explained that: **Constant (C):** This shows that the constant (intercept) of the regression model is not statistically significant because the p-value is well above 0.05. The value of this constant has no significant interpretation in this model.

Exchange Rate (x1):

The coefficient for Exchange Rate is statistically significant (p-value < 0.05). This suggests that there is a positive relationship between the exchange rate and the dependent variable in this model. Each increment of one unit in the Exchange Rate will increase the dependent variable by 0.146257 units.

Inflation (x2):

The coefficient for Inflation is also statistically significant (p-value < 0.05). This suggests that there is a negative relationship between inflation and dependent variables. Every increase of one unit in Inflation will reduce the dependent variable by 7,832,002 units.

GDP Growth (X3):

The coefficient for GDP Growth is not statistically significant (p-value > 0.05). This shows that GDP Growth has no significant influence on the dependent variables in this model.

Conclusion:

Exchange Rate and **Inflation** are significant variables in this model, with Exchange Rate having a positive influence and Inflation having a negative influence.

Constant (C) and **GDP Growth** are not statistically significant, which means they do not make a meaningful contribution in this regression model.

Table 2 F Statistics Results

Stats F	Probability F

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1.053.843	0.000001

From the results of the table carried out, it can be explained that:

High F-Statistic (1,053,843) indicates that your model can effectively account for variability in data.

Very low p-value F (0.000001) indicates that the relationship between the independent variable and the dependent variable in the model is statistically significant. This means that you can be sure that the regression model used has good validity in explaining the relationships in the data.

Based on the results of the data analysis that has been carried out, the following are the main findings of this study:

The results of the regression analysis show that the exchange rate has a positive and significant influence on the share price of the mining sub-sector listed on the Indonesia Stock Exchange (IDX) during the 2020-2024 period. The regression coefficient for the exchange rate variable is 0.14, which means that every 1% increase in the exchange rate will increase the stock price by 0.14% assuming the other independent variables are constant. The probability value for the exchange rate variable is 0.0006, which indicates significance at a confidence level of 95%.

The results of the regression analysis show that inflation has a negative and significant influence on the share prices of the mining sub-sector listed on the IDX during the 2020-2024 period. The regression coefficient for the inflation variable is -78.32, which means that every 1% increase in inflation will lower the stock price by 78.32% assuming the other independent variables are constant. The probability value for the inflation variable is 0.0170, which indicates significance at a confidence level of 95%.

The results of regression analysis show that GDP growth has a negative and insignificant influence on the share prices of mining sub-sectors listed on the IDX during the 2020-2024 period. The regression coefficient for the GDP growth variable is -1.25, which means that every 1% increase in GDP growth will lower the stock price by 1.25% assuming the other independent variables are constant. The probability value for the GDP growth variable is 0.9705, which indicates the absence of significance at the 95% confidence level.

The results of the F test show that exchange rates, inflation, and GDP growth simultaneously have a positive and significant influence on the share price of the mining sub-sector listed on the IDX during the 2020-2024 period. The F-statistic value is 10.53843 with a probability value of 0.000001, which indicates significance at a 95% confidence level.

The positive and significant influence of exchange rates on stock prices shows that fluctuations in the exchange rate of the Rupiah against the US Dollar have a direct impact on the performance of mining companies. An increase in the exchange rate of the Rupiah against the US Dollar can increase the company's revenue, which mostly comes from commodity exports, thereby increasing stock prices. This result is in line with previous research by Munib (2016) and Kewal (2012) which also found a significant positive influence of exchange rates on stock prices.

The negative and significant influence of inflation on stock prices suggests that increased inflation can increase a company's production and operational costs, which in turn reduces profitability and stock prices. This result is consistent with Tandelilin's theory (2010) which states that inflation is a negative signal for investors. Previous research by Dwijayanti (2021) and Kurniawati (2015) also found a significant negative influence of inflation on stock prices.

Although GDP growth has a negative influence on stock prices, this result is not significant. This shows that fluctuations in GDP growth do not directly affect investors' interest in investing in mining company stocks. This result is in line with research by Indriani (2022) and Kewal (2012) which also found a negative and insignificant influence of GDP growth on stock prices.

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The positive and significant influence simultaneously shows that the combination of exchange rate, inflation, and GDP growth has a significant impact on the share price of the mining sub-sector. Investors need to consider these macroeconomic factors in making investment decisions to maximize profits and minimize risks.

E. CONCLUSIONS AND SUGGESTIONS

This study shows that exchange rates, inflation, and GDP growth have a significant influence on the share prices of mining sub-sectors listed on the Indonesia Stock Exchange (IDX) for the 2020–2024 period. Partially, the exchange rate has a significant positive influence on stock prices, indicating that an increase in the exchange rate of the Rupiah against the US Dollar has the potential to increase the income of export-based companies and encourage an increase in stock prices. On the contrary, inflation exerts a significant negative influence, indicating that rising inflation tends to increase operating costs and decrease company profitability, thus depressing stock prices. The GDP growth has a negligible negative influence, which shows that this factor has less direct impact on stock investment decisions in the mining sector.

Simultaneously, these three variables have a significant effect on the share price of the mining sub-sector, emphasizing the importance of considering macroeconomic factors in investment analysis. The results of this study provide valuable insights for investors to understand the relationship between macroeconomic factors and stock performance, as well as support more informed investment decision-making.

This research also contributes to the capital market literature by exploring the dynamics of stock prices in the mining sector in the context of macroeconomic changes, providing a basis for further studies related to other sectors or different periods.

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