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The Effect of Interest Rates and Inflation on Stock Prices: Evidence from Conventional Banking Companies Listed on the Indonesia Stock Exchange for The Period 2022-2024

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Abstract

This study examines the effect of inflation and the Bank Indonesia policy interest rate on stock prices in conventional banking companies listed on the Indonesia Stock Exchange during 2022-2024. The research was motivated by the sensitivity of the banking sector to macroeconomic movements during the post-pandemic recovery period. A quantitative associative design was applied using secondary data from 42 conventional banks selected through purposive sampling, producing 126 firm-year observations. Inflation was measured using the annual inflation rate, the interest rate was proxied by the BI 7-Day Reverse Repo Rate, and stock prices were measured using annual closing prices. The data were analyzed using descriptive statistics, classical assumption tests, multiple linear regression, t-tests, F-test, and coefficient of determination. The findings show that inflation has a positive and significant effect on banking stock prices ($B = 0.140$; $t = 2.468$; $p = 0.015$). The BI interest rate also has a positive and significant effect ($B = 0.177$; $t = 2.175$; $p = 0.024$). Simultaneously, inflation and interest rates significantly explain stock prices ($F = 7.093$; $p = 0.002$), with an Adjusted R Square of 0.347. These results indicate that, during the research period, moderate inflation and higher interest rates were inteprreted by investors as signals of banking profitability and macroeconomic stabilization rather than purely as risk factors.

Keywords: inflation, interest rate, stock price, banking sector, Indonesia Stock Exchange

1. Introduction

The banking sector plays a strategic role in the Indonesian economy because banks function as intermediary institutions that collect public funds and redistribute them through credit. This function makes banking closely connected with monetary policy, macroeconomic stability, and capital market expectations (Sitasari & Firmansyah, 2022). In the stock market, bank shares are among the most actively traded securities on the Indonesia Stock Exchange (IDX), and their prices reflect investor expectations about firm value, profitability, and future performance (Katmas & Indarningsih, 2022).

Macroeconomic factors are important external determinants of stock price movements (Primartha & Diana, 2021). Two indicators that are especially relevant for the banking industry are inflation and interest rates. Inflation reflects changes in the general price level and may influence purchasing power, production costs, and investment behavior (Handri et al., 2024). Meanwhile, the policy interest rate affects the cost of funds, loan pricing, and investors' allocation between risky assets and safer financial instruments.

The 2022-2024 period provides a useful context for analysis because Indonesia experienced post-pandemic economic recovery, inflationary pressure, and monetary policy adjustment. Inflation reached 5.51% in 2022, declined to 2.61% in 2023, and further decreased to 1.57% in 2024 (Fauzi & Wijoyo, 2025). During the same period, Bank Indonesia maintained a relatively high policy rate, moving from 5.50% in 2022 to 6.00% in 2023 and 2024 in the annual dataset used in this study. Banking stock prices did not move uniformly: several large banks such as BBCA, BMRI, and BBNI showed upward movement, while others such as BBRI, BNGA, NISP, and BJTM fluctuated.

Previous studies provide mixed evidence regarding the relationship between inflation, interest rates, and stock prices. Some studies report significant macroeconomic effects on banking stock prices, while others find insignificant or context-dependent relationships (Cahyanti et al., 2024). This inconsistency creates a research gap, particularly for the post-pandemic period and for conventional banks listed on the IDX (Halim, 2020). Therefore, this study investigates whether inflation and interest rates influence stock prices in the Indonesian conventional banking sector during 2022-2024.

2. Literature Review

2.1. Stock Prices

A stock price is the market value of a company's shares formed through supply and demand in the capital market (Hardi et al., 2023). In this study, stock price is measured using the annual closing price, because closing price is generally considered to represent the market valuation at the end of a trading period. Stock prices are influenced by internal firm factors such as profitability and capital structure, as well as external factors such as macroeconomic conditions.

2.2. Inflation and Stock Prices

Inflation is a continuous increase in the general price level. Theoretically, high inflation may reduce purchasing power and increase operating costs, which can lower profitability and stock valuations (Hiendrawati et al., 2024). However, in a recovery phase, moderate inflation may also indicate stronger aggregate demand. For banks, stronger economic activity can increase loan demand and interest income. Therefore, the direction of inflation's effect on banking stock prices may depend on the economic context.

2.3. Interest Rates and Stock Prices

The policy interest rate is one of the central bank's main instruments for maintaining price stability and supporting macroeconomic balance (Kusumaningtyas et al., 2021). Conventional theory suggests that rising interest rates may reduce stock demand because investors may move funds to deposits or bonds (Pinem & Ariani, 2023). In banking, however, higher rates can increase loan yields and net interest margins, especially when lending rates adjust faster than deposit rates. This sector-specific mechanism may produce a positive relationship between policy rates and bank stock prices.

2.4. Research Model and Hypotheses

The research model links inflation and the BI interest rate as independent variables to stock price as the dependent variable. Based on the theoretical and empirical arguments above, this study proposes the following hypotheses:

H1 : Inflation has a significant effect on the stock prices of conventional banking companies listed on the IDX.

H2 : The BI interest rate has a significant effect on the stock prices of conventional banking companies listed on the IDX

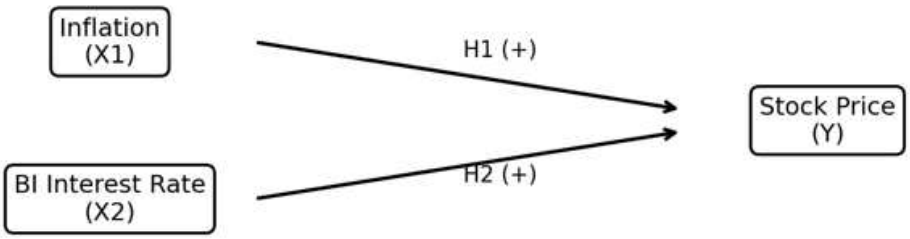

Figure 1: Research model

3. Materials and Methods

3.1. Materials

This study uses a quantitative associative approach. The population consists of banking companies listed on the Indonesia Stock Exchange during 2022-2024. Purposive sampling was applied using the following criteria: companies were listed throughout the research period, did not experience delisting, were not Islamic banks, did not conduct an IPO after 2021, and had complete stock price and financial data. Based on these criteria, 42 conventional banking companies were selected. With three years of observation, the final dataset contains 126 firm-year observations.

The data consist of annual stock closing prices, annual inflation, and the BI 7-Day Reverse Repo Rate. Stock price data were obtained from IDX-related market data, inflation data from the Indonesian statistical authority, and interest-rate data from Bank Indonesia. The study treats the data as pooled observations for multiple linear regression analysis.

Table 1: Operational definition of variables

Variable	Definition	Indicator	Scale
Stock price (Y)	Market price formed through supply and demand in the capital market	Annual closing price (IDR)	Ratio
Inflation (X1)	General and continuous increase in prices	Annual inflation rate (%)	Ratio
BI interest rate (X2)	Policy rate used by Bank Indonesia as monetary policy instrument	BI 7-Day Reverse Repo Rate (%)	Ratio

Source: Processed by the author (2026)

3.2. Methods

Data analysis was conducted in stages. First, descriptive statistics were used to describe the minimum, maximum, mean, and standard deviation of each variable. Second, classical assumption tests were performed, including normality, heteroscedasticity, multicollinearity, and autocorrelation tests. Third, multiple linear regression was used to estimate the effect of inflation and the BI interest rate on stock prices. The main formulas used in the analysis are presented below (Pramana et al., 2025).

$$Inflation_t = \left(\frac{(CPI_t - CPI_{t-1})}{CPI_{t-1}}\right) \times 100\% \quad (1)$$

$$Stock\ Price_{i,t} = Closing\ Price_{i,t} \quad (2)$$

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon \quad (3)$$

$$R^2 = \frac{SSR}{SST} \quad (4)$$

where Y represents stock price, X_1 represents inflation, X_2 represents the BI interest rate, α is the constant, β_1 and β_2 are regression coefficients, and ε is the error term.

4. Results and Discussion

4.1. Descriptive Statistics

The descriptive statistics from this study are presented in Table 2.

Table 2: Descriptive statistics

Variable	N	Minimum	Maximum	Mean	Std. deviation
Stock price (IDR)	126	30	9,675	1,471.72	1,920.883
Inflation (%)	126	0.02	0.06	0.0323	0.01674
BI interest rate (%)	126	0.06	0.06	0.0583	0.00237

Source: SPSS output, processed by the author (2026).

The stock price variable has a wide range, from IDR 30 to IDR 9,675, indicating considerable heterogeneity across banking firms. The mean value of IDR 1,471.72 and standard deviation of 1,920.883 show that several large banks dominate the upper tail of the distribution. Inflation has a mean of 3.23%, while the BI interest rate has a small standard deviation, indicating limited variation in the annual interest-rate data.

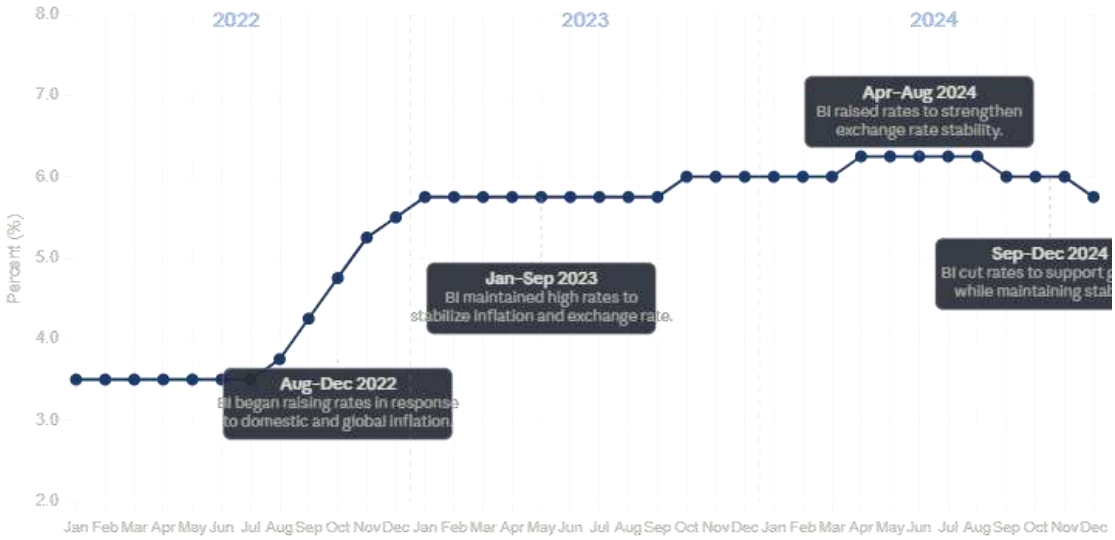

Figure 2: Inflation and BI interest-rate trend, 2022-2024

Figure 2 illustrates the trajectory of the BI 7-Day Reverse Repo Rate from January 2022 to December 2024, reflecting three distinct monetary policy phases. Bank Indonesia maintained an accommodative rate of 3.50% throughout early 2022 before initiating a series of hikes from August 2022 onward in response to rising inflationary pressures, ultimately reaching $5.75\% - 6.25\%$ by 2023–2024. The rate was held at elevated levels through most of 2023 to anchor inflation and stabilize the exchange rate, before a gradual easing began in the second half of 2024 as inflation moderated to 1.57%. This trend provides the macroeconomic context for the study, showing that the observation period was characterized by active and shifting monetary policy rather than a stable rate environment.

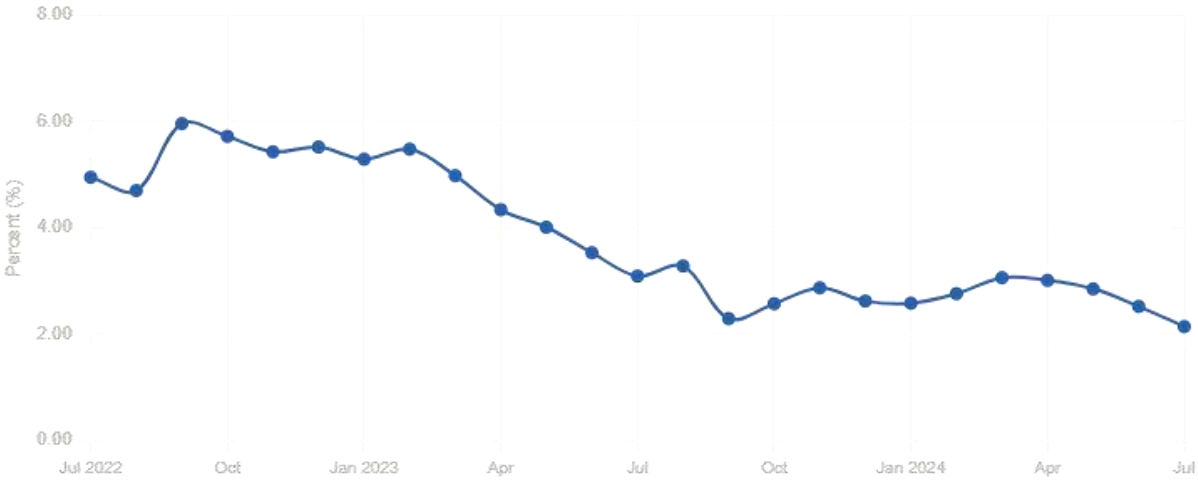

Figure 3: Average stock price of sample banks, 2022-2024

Figure 3 presents Indonesia's annual inflation rate from mid-2022 through mid-2024, sourced from Bank Indonesia. The data reveal a clear and consistent downward trend over the observation period. Inflation stood at its highest point of approximately 5.95% in mid-2022, driven by post-pandemic demand recovery and rising global commodity prices. From early 2023 onward, inflation declined steadily, falling to around $3.00\% - 3.50\%$ by mid-2023 and continuing to ease through 2024, reaching approximately $2.00\% - 2.50\%$ by mid-2024. This deceleration reflects the effectiveness of Bank Indonesia's monetary tightening policy, particularly the series of BI 7-Day Reverse Repo Rate increases implemented from August 2022 onward. The moderation of inflation throughout 2023–2024 provided room for Bank Indonesia to gradually shift toward a more accommodative stance in the latter half of 2024. In the context of this study, the declining inflation environment is significant because it coincided with a period in which banking stock prices nonetheless remained relatively stable or increased for certain banks, suggesting that investors may have perceived controlled inflation as a signal of macroeconomic stabilization rather than a threat to banking sector profitability.

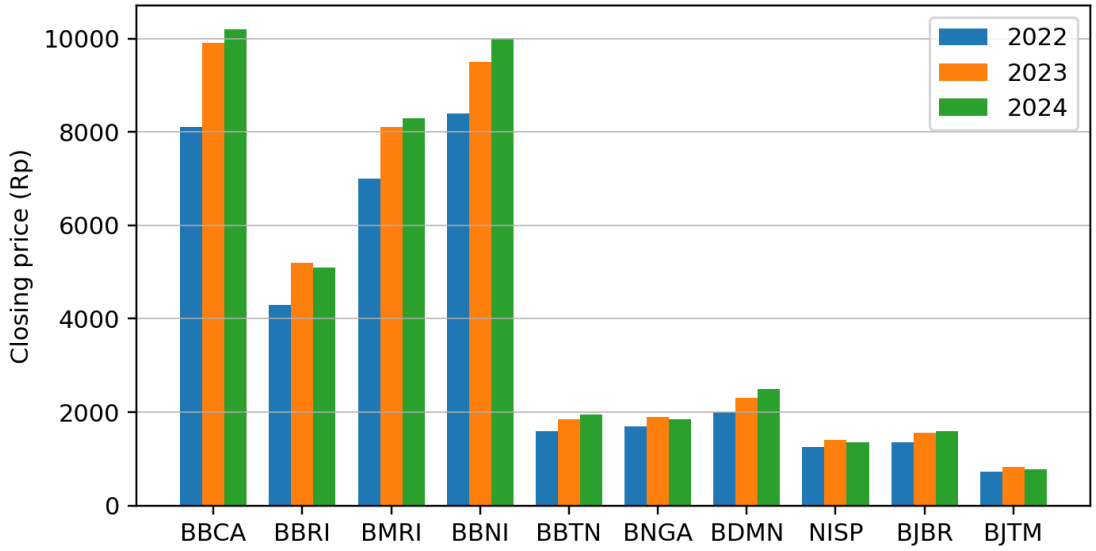

Figure 4: Stock-price movement of selected conventional banks

Figure 4 presents the year-end closing prices of ten selected conventional banks across 2022–2024, revealing a clear divergence between large and small banks. The four major banks BBCA, BBRI, BMRI, and BBNI consistently recorded prices above IDR 4,000, with BBCA and BBNI surpassing IDR 10,000 by 2024, reflecting strong fundamentals and investor confidence in systemically important institutions. In contrast, mid-sized and regional banks such as BBTN, BNGA, NISP, BJBR, and BJTM remained in the IDR 700–IDR 2,500 range with comparatively modest movement. This heterogeneity is consistent with the wide standard deviation reported in the descriptive statistics and underscores that, beyond macroeconomic factors, firm-specific characteristics play a significant role in shaping stock price outcomes across the Indonesian conventional banking sector.

4.2. Classical Assumption Tests

The cassical assumption in this research is presented in Table 3.

Table 3: Classical assumption test summary

Test	Method	Result	Conclusion
Normality	Kolmogorov-Smirnov	$Sig. = 0.092 > 0.05$	Normal
Heteroscedasticity	Glejser	$Sig.X1 = 0.736; X2 = 0.707 > 0.05$	No heteroscedasticity
Multicollinearity	Tolerance and VIF	$VIF = 1.012 < 10$	No multicollinearity
Autocorrelation	Durbin-Watson	$DW = 1.832$	No autocorrelation

Source: SPSS output, processed by the author (2026).

The assumption tests indicate that the regression model satisfies the requirements for ordinary least squares estimation. The residuals are normally distributed, the Glejser test shows no heteroscedasticity, the VIF values indicate no multicollinearity, and the Durbin-Watson statistic falls within the acceptable range for no autocorrelation.

4.3. Coefficient of Determination and Simultaneous Test

The results of the ANOVA calculation are shown in the Table 4.

Table 4: Model summary and ANOVA results

Indicator	Value
R	0.625
R Square	0.462
Adjusted R Square	0.347
Std. error of estimate	6.63546
Durbin-Watson	1.832
F statistic	7.093
Significance F	0.002

Source: SPSS output, processed by the author (2026).

The Adjusted R Square value of 0.347 indicates that inflation and the BI interest rate jointly explain 34.7% of the variation in stock prices. The remaining 65.3% is explained by other factors outside the model, such as firm profitability, capital adequacy, non-performing loans, exchange rates, market sentiment, and broader capital-market conditions. The F-test result is significant ($F = 7.093$; $p = 0.002$), meaning that the independent variables simultaneously affect stock prices.

4.4. Multiple Linear Regression and Hypothesis Testing

Hypothesis testing and results of the multiple regression analysis are as follows:

Table 5: Regression coefficients and t-test results

Variable	B	Std. error	Beta	t	Sig.
Constant	0.696	4.092	-	9.702	0.000
Inflation (X1)	0.140	0.057	0.217	2.468	0.015
BI interest rate (X2)	0.177	0.066	0.103	2.175	0.024

Source: SPSS output, processed by the author (2026).

The estimated regression equation is:

$$Y = 0.696 + 0.140\,X_1 + 0.177\,X_2 \tag{5}$$

The coefficient for inflation is positive and significant ($B = 0.140$; $t = 2.468$; $p = 0.015$). This means that inflation has a statistically significant positive relationship with banking stock prices during the study period. The coefficient for the BI interest rate is also positive and significant ($B = 0.177$; $t = 2.175$; $p = 0.024$), indicating that higher policy rates were associated with higher stock prices in the conventional banking sector.

Table 6: Hypothesis testing summary

Hypothesis	Relationship	B	Beta	t	Sig.	Decision
H1	Inflation -> stock price	+0.140	0.217	2.468	0.015	Accepted
H2	BI interest rate -> stock price	+0.177	0.103	2.175	0.024	Accepted

Note: Significant at alpha = 5%. Source: Processed by the author (2026).

4.5. Discussion

The positive effect of inflation differs from the initial theoretical expectation that inflation would negatively affect stock prices. However, the result can be explained by the post-pandemic recovery context. During 2022-2024, moderate inflation was accompanied by stronger economic activity and credit expansion. For banks, higher demand for credit can increase interest income and improve market expectations. Investors may therefore interpret controlled inflation as a signal of business recovery rather than purely as a cost pressure.

The positive effect of the BI interest rate can also be explained through banking-sector characteristics. Banks are not only borrowers; they are also lenders and price setters in credit markets. When the policy rate increases, banks can adjust lending rates and potentially improve net interest margins, especially if deposit rates adjust more slowly. This mechanism helps explain why higher rates may be positively associated with banking stock prices, even though conventional finance theory often predicts a negative relationship between interest rates and stock prices in general.

Simultaneously, the significant F-test indicates that inflation and interest rates jointly matter for banking stock prices. Nevertheless, the Adjusted R Square of 34.7% also suggests that macroeconomic variables alone do not fully explain stock-price movements. Firm-specific financial performance and market-level variables should be incorporated in future research to improve explanatory power.

5. Conclusion

This study concludes that inflation has a positive and significant effect on the stock prices of conventional banking companies listed on the Indonesia Stock Exchange during 2022-2024. The result indicates that, in the post-pandemic recovery period, moderate inflation was interpreted by investors as part of improving economic activity and banking performance. The BI interest rate also has a positive and significant effect on banking stock prices, suggesting that higher policy rates can support banking profitability through loan-pricing and net-interest-margin channels.

Inflation and the BI interest rate simultaneously have a significant effect on stock prices, with an Adjusted R Square of 0.347. This means that the two macroeconomic variables explain 34.7% of the variation in stock prices, while the remaining variation is explained by other factors. Future research should extend the observation period,

apply panel-data models such as fixed effects or random effects, and include additional variables such as exchange rates, GDP growth, ROA, ROE, CAR, NPL, and LDR.

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