

UNDERSTANDING STOCK PRICE DYNAMICS: THE ROLE OF BOPO, NPL, INSTITUSIONAL OWNERSHIP AND MACROECONOMIC FACTORS

Fitri Rahmatun Hidayah, Dyah Febriantina Istiqomah

Faculty of Economics, Universitas Islam Negeri Maulana Malik Ibrahim
Malang Jl. Gajayana No.50, Malang, East Java, 65144, Indonesia
rhmhdhy@gmail.com

ABSTRACT

This study analyzes the impact of financial indicators (BOPO and NPL), non-financial factors (institutional ownership), and macroeconomic variables (inflation and interest rates) on stock prices. Using a quantitative approach, the research employed panel data regression analysis on a sample of 47 banking companies, selected via purposive sampling from 2021 to 2023, resulting in 141 observations. Data from financial reports were analyzed with EViews 12 software, encompassing model selection tests, classical assumption tests, and hypothesis testing.

The findings reveal that NPL, institutional ownership, and interest rates significantly influence stock prices, whereas BOPO and inflation do not show a significant effect. These results suggest that investors prioritize long-term growth indicators like profitability, business expansion, and innovation over short-term operational efficiency metrics such as BOPO. Additionally, the insignificant impact of inflation may be attributed to its relative stability during the observation period. This research offers investors and corporate management crucial insights in making well-informed investment and strategic decisions.

Keywords: Stock Price, BOPO, NPL, Institutional Ownership, Macroeconomic factors

INTRODUCTION

Stock price is a key indicator directly influencing companies because it reflects their operational achievement. According to Fernando et al (2023), an increase in stock prices presents an opportunity for companies to attract more investors because it reflects good performance. Conversely, declining stock market values negatively affect investor confidence regarding the company's future direction. Before making investment choices, investors use stock prices to understand a company's condition (Kusumawati, 2024). Additionally, accounting data is needed to evaluate the potential investment risks (Hariawan & Canggih, 2022). Stock prices are a basis for predicting potential profits or capital gains for investors. In the investment world, high-profit opportunities are typically accompanied by high risks. While investment outcomes cannot be guaranteed, investors can estimate potential profits by analyzing a company's financial statements (Dharma et al., 2022). Although each investor has their own investment criteria, stock prices remain the primary reference when making investment decisions.

During the 2021-2023 period, stock prices in the Indonesian banking sector fluctuated dynamically, driven by Bank Indonesia's monetary policy, the effects of the COVID-19 pandemic, and the global economic recovery. In early 2021, many banks faced pressure on their stock prices amid economic uncertainty. By 2022, however, several banks, including BMRI and BBNi, saw significant increases of 41.13% and 38.29%, respectively. In contrast, Bank BBTN and BRIS experienced 21% and 28% declines. These fluctuations were influenced by credit demand, interest rate stabilization, and operational performance (Natali & Suhendra, 2023).

Factors such as financial, non-financial, and macroeconomic conditions influence stock price movements. Cost efficiency, measured by the Operating Expense to Operating Income (BOPO) ratio, is one such factor. The BOPO indicator helps demonstrate an organization's ability to manage expenses and utilize resources effectively (Yusmanianti et al., 2023). More efficient cost management by a company creates higher profit potential, enhancing investor perception of the company's value and leading to stock

price growth. Financial ratios also play a crucial role. A key indicator is the Non-Performing Loan (NPL) ratio, which reflects the proportion of loans that debtors have failed to repay. According to Bank Indonesia, the maximum safe NPL limit is 5%. A high NPL ratio signals poor credit effectiveness by the bank, indicating problems in credit risk management and reduced profitability, which serves as a negative signal for investors (Al Amri et al., 2022; Purnamasari & Sitorus, 2023). Consequently, investors tend to respond positively to companies with low NPLs, which suggests greater profit potential and lower risk (Hartono et al., 2022).

Stock price behavior also depends on non-financial elements like institutional ownership, which is the percentage of a company's shares held by institutional investors. A high level of institutional ownership indicates stronger oversight over the company's performance, which is generally perceived positively by the market. This enhanced supervision reflects greater investor confidence in the company's management and future prospects, often positively impacting its stock price (Arifin & Rosidi, 2024; Hirmawan et al., 2023). Finally, macroeconomic elements significantly impact stock prices, particularly inflation and interest rates. According to Wiwiek (2024) inflation can cause overall price increase, diminishes consumer buying power and can reduce corporate profitability by driving up production costs. This can decrease investor interest and cause stock prices to decline. Conversely, controlled inflation can foster company growth and boost investor confidence, which can ultimately drive stock prices up (Rasyad et al., 2021). Interest rates also heavily influence stock prices. According to Purba et al, (2024), high interest rates typically increase borrowing costs for companies, which can hinder investment and expansion activities. Additionally, elevated interest rates may lead investors to shift their preferences from stocks to fixed-income instruments such as bonds or time deposits, as these alternatives offer more attractive and stable returns. Consequently, numerous studies have established a negative correlation between interest rates and stock prices, as rising interest rates tend to reduce stock valuations due to lower corporate profitability and changing investor preferences (Kurniawan, 2021).

Previous studies have shown varying results regarding the effect of cost efficiency and financial ratios on stock prices. Nugroho & Rachmaniyah (2021) found that BOPO and NPL affected stock prices. Yusmanianti et al (2023) and Hikmadina et al (2021) studied this issue. The study concluded that BOPO does not influence stock market value. The research by Abror (2022) indicates that institutional ownership fails to affect stock market prices substantially, but Ashari & Pakaya (2022) found otherwise. Research by Nanda et al (2023) indicates that rising inflation levels lead to declining stock values in financial markets. In contrast, Maulani & Riani (2021) determined that inflation rates and interest rates have no impact on stock market prices. Previous research showed different findings pointing out an inadequate research gap, which is why the research was conducted. This research is a development of research by Yanti (2024) by adding non-financial factors of institutional ownership and macroeconomic factors, and expanding the bank sample to expand the generalization of the study. Research has been conducted on how BOPO, NPL, institutional ownership, inflation, and interest rates affect banking company stock prices (Isywara et al., 2024).

LITERATURE REVIEW

Signal Theory

Signal Theory explains how information published by a company can serve as a signal for investors in making investment decisions. Every investor needs complete, relevant, and accurate information for analysis to support their investment decisions (Sari, 2022). A company's issuance of informational signals aims to prevent information asymmetry for investors, as investment decisions are heavily influenced by available information. These signals can be good news, such as an increase in annual performance, or bad news, like a decline in performance. Variables such as BOPO, NPL, institutional ownership,

inflation, and interest rates signal a company's condition and prospects. A low BOPO ratio reflects operational efficiency and provides a positive signal, while a high NPL provides a negative signal. High institutional ownership indicates good management and stable prospects, thus giving a positive signal to external investors. Macroeconomic conditions, such as rising interest rates and inflation, can provide negative signals that influence investor decisions, especially in the banking sector, which relies on credit products (Isnin & Andayani, 2023). Stock price fluctuations are influenced by investor responses to these signals, whether positive or negative, which impact market conditions (Sari, 2022).

Stock Price

Stock prices have a value that changes easily as it is influenced by supply and demand in the stock market. When demand increases, stock prices tend to rise, whereas if supply is higher, stock prices will fall. Companies with strong stock prices have a positive image in the eyes of investors and can attract investment interest (Azis et al., 2015). The stock price is usually reflected by the closing price, representing the result of the last transaction in a trading period (Abqari & Hartono, 2020).

Operating Expense to Operating Income (BOPO)

The BOPO ratio measures a bank's operational efficiency by comparing operational costs, such as employee salaries, administrative expenses, and deposit interest, with operational income from loan interest, commissions, and other sources. A low BOPO ratio reflects high efficiency, positively impacting the bank's profitability, whereas a high ratio indicates low efficiency that can decrease profits. Initially used to assess the performance of large and medium-sized banks, this ratio is now applied to small and medium-sized banks and has become an important indicator for investors in assessing a bank's performance (Budianto & Dewi, 2023). Effective management of BOPO allows a bank to maximize revenue with minimal costs, support business sustainability, and meet stakeholder expectations (Mustika et al., 2023).

Non-Performing Loan (NPL)

NPL is a condition of problematic credit occurring gradually, from current to non-performing loans. NPL is an indicator that measures the extent to which the bank's productive assets cover problem loans. A high NPL negatively impacts a bank's financial performance because it reduces loan income and decreases profits. According to Bank Indonesia regulations, every bank must maintain its NPL value below 5% to keep its financial performance healthy (Wahyu, 2020).

Institutional Ownership

Institutional ownership refers to a company's shares held by various institutions such as banks, insurance companies, pension funds, investment institutions, other companies, and domestic and foreign governments (Yusuf et al., 2022). This ownership influences and oversees the company, focusing on long-term financial performance since their investment returns depend on its growth. High institutional ownership encourages stricter oversight to control opportunistic behavior by managers, thereby improving corporate governance (Rivandi, 2021).

Inflasi

Inflation is a general and sustained increase in the prices of goods and services, often occurring when a country's economy grows rapidly. Inflation can be caused by internal factors, such as diminishing supplies and high demand, as well as external factors, like crises in other countries and an increase in foreign exchange rates against the dollar, which can weaken the national economy (Prawoto, 2019). The Consumer Price Index (CPI) measures the inflation rate, which reflects the average fluctuation in the prices of daily necessities. Rising inflation decreases public purchasing power and the value of money, increasing production costs for companies, thereby shrinking profit margins and forcing companies to adjust their business strategies (Nugraheni & Paramita, 2020).

Interest Rate

An interest rate is the return on savings, expressed as a percentage, and serves as the price for using funds over a specific period (Sukirno, 2015). High interest rates tend to lower stock prices because investors are more attracted to other investment instruments, such as bonds or deposits, that offer more attractive returns. Conversely, low interest rates encourage investment in the stock market because borrowing costs become cheaper and returns from other instruments are less competitive, thus increasing demand and stock prices (Maulani & Riani, 2021). Bank Indonesia has the authority to set the benchmark interest rate to stimulate economic activity when the rate is lowered and slow down overly rapid economic growth when the rate is raised (Nurrosyida, 2023).

HYPOTHESIS

The effect of BOPO on stock prices

The BOPO ratio is a key indicator of a bank's operational efficiency. When the proportion of operating expenses to operating income is low, it reflects effective cost management by the bank. Investors interpret this condition positively, as it signals sound financial performance. Based on signal theory, management uses financial metrics such as BOPO to convey information to external parties, particularly investors. A declining BOPO ratio suggests the company operates efficiently and may achieve higher profitability. This can enhance investor confidence, increase share demand, and increase stock prices.

Yudistira & Supiyadi (2024) research indicated that BOPO negatively impacts stock price values in line with research by Istianah & Mahirun (2024), who concluded that a higher BOPO ratio tends to lower stock values. Investors generally interpret a high BOPO ratio as a sign of inefficient resource utilization, which could reduce company profits and the expected return on dividends. This perception often leads to a decline in investor interest and a decrease in the firm's stock value. An increasing BOPO ratio indicates diminished operational performance that adversely affects share prices. The explanation and outcomes of this study demonstrate that the formulated hypothesis is:

H₁: BOPO has a negative effect on stock prices.

The effect of NPL on stock prices

The NPL ratio reflects the level of non-performing loans in banks, where a high NPL indicates a large number of loans that have failed to be paid, thus reducing financial performance. Financial information from the company helps management transmit indications about business prospects and performance to investors. A bank's stock price tends to rise when its NPL ratio remains low since effective credit risk management demonstrates to investors that it operates efficiently. The stock prices tend to decrease when investor interest lowers due to negative signals from high NPL ratios. These signals poor bank asset quality and weak risk management practices.

Research by Al Amri et al (2022) establishes that the decline in stock price is an effect of NPL. The rise in NPL delivers negative signals to higher banking stock prices, indicating decreasing investor interest in investments. Meanwhile, Yanti (2024) found a negative effect of NPL on stock prices, indicating that increasing NPL can reduce bank performance and affect investor interest in investing in the company. The study results and their explanations lead to the following hypothesis:

H₂: NPL has a negative effect on stock prices.

The effect of institutional ownership on stock prices

Institutional ownership is an integral part of corporate governance implementation, as it plays a key role in the supervision and management of a company. Reflecting the number of shares held by institutions and foreign entities, institutional ownership is an important signal for investors because these institutions have better access to information and can influence management decisions. High institutional ownership sends a positive signal that a company has strong prospects and low risk due to stricter oversight, thereby increasing investor confidence to invest and boosting demand for the company's shares (Arifin &

Rosidi, 2024). Research by Al Amri et al (2022) shows that institutional ownership positively affects stock prices. The presence of institutional investors encourages optimal supervision of management's performance to stabilize the company's stock price. Another study Arifin & Rosidi (2024) indicates that institutional ownership positively influences stock prices. A high level of institutional ownership provides greater stability to stock prices due to active monitoring by institutional investors. Based on this explanation and these research findings, the formulated hypothesis is:

H₃: Institutional ownership has a positive effect on stock prices.

The effect of inflation on stock prices

High inflation can significantly influence stock prices, particularly as it is often met with monetary tightening, such as increased interest rates for price stabilization. As interest rates rise, companies face higher borrowing costs, which can hinder profitability and limit business expansion opportunities. Furthermore, elevated inflation increases operational and raw material expenses, reducing corporate profit margins. These conditions typically lead investors to adopt a more cautious stance, anticipating declines in corporate financial performance. According to signaling theory, high inflation sends a negative signal to the market because it increases operational burdens, weakens consumer purchasing power, and often triggers central bank interest rate hikes. This combination suppresses business growth and investor enthusiasm, especially in industries highly sensitive to rising input costs. Nevertheless, if a company can sustain its profitability amid inflationary pressures, it may signal strong fundamentals and effective management, enhancing investor confidence and the stock price.

Study by Nurliandini et al (2021) and Maulani & Riani, (2021) show that inflation negatively impacts stock prices. The economic uncertainty caused by inflation often prompts investors to shift their capital into safer assets, such as bonds or gold. This reallocation reduces demand for stocks and subsequently leads to a price drop. Based on this explanation and the results of these studies, the formulated hypothesis is as follows:

H₄: Inflation has a negative effect on stock prices.

The effect of interest rates on stock prices

Elevated interest rates negatively affect stock prices by increasing a company's debt costs, reducing net earnings, and affecting market competitiveness. The higher cost of borrowing may also cause companies to postpone expansion plans or new investments, potentially slowing business growth and diminishing future profit expectations. From an investor's perspective, high interest rates send a negative signal, indicating a potential decline in a company's profitability. This often encourages stock selling, leading to a drop in prices. Conversely, cheaper borrowing costs allow companies to increase investment and expand their business when interest rates are low. The market interprets low interest rates as a positive indicator for profit growth, attracting more investors. A decrease in interest rates also reduces the appeal of bond investments compared to stocks, leading to increased stock purchases and higher stock prices.

Interest rates represent the cost of borrowing and play a crucial role in corporate financing decisions. When borrowing costs decline, firms can more readily secure loans to fund new projects, drive innovation, or expand operations—factors that enhance their growth prospects and appeal to investors. Research by Maulani & Riani, (2021) demonstrated that higher interest rates tend to depress stock prices by raising financing costs and dampening firms' expansion plans. Similarly, Nurliandini et al (2021) found a negative relationship between interest rates and equity values, noting that lower rates support corporate investment and, in turn, lift share performance. Based on this explanation and the results of the study, the formulated hypothesis is:

H₅: Interest rates have a negative effect on stock prices.

METHODS

This research uses a quantitative approach with numerical data analyzed statistically

(Sugiyono, 2017). This method tests established hypotheses and examines measurable issues within a broad population. The population for this study is 57 banking companies listed on the Indonesia Stock Exchange (IDX) from 2021 to 2023. The research sample was selected using a purposive sampling technique, which involves choosing data sources based on specific criteria and considerations to represent the population (Sugiyono, 2017). The following table outlines the sample selection criteria:

Table 1. Sample Selection Criteria

No	Criteria	Number of Companies
1	Banking Companies Listed on the Indonesia Stock Exchange during 2021-2023	57
2	Less companies that did not present financial reports or had incomplete data during 2021-2023	(10)
3	Number of companies that meet the criteria	47
Total data observation during 2021-2023		141

Source: Processed Data (2025)

Based on the purposive sampling results, 47 banking companies listed on the Indonesia Stock Exchange (IDX) met the research criteria, with an observation period of 3 years. Therefore, the total number of observations is 141.

The BOPO variable is a ratio that describes a bank's efficiency by comparing operating costs to operating income (Mustika et al., 2023). NPL is a ratio that measures the level of non-performing loans at a bank, calculated as the total NPLs divided by total loans (Kasmir, 2019). Institutional ownership is the ratio of shares held by institutions to the total number of outstanding shares (Injayanti et al., 2020). Inflation is measured using the Consumer Price Index (CPI) (Mankiw, 2016). The interest rate is measured using the benchmark data published by Bank Indonesia (Mankiw, 2016). Stock price is measured using the closing price, the last recorded price at the close of trading on the stock exchange (Kusumaningrum et al., 2024).

This study uses panel data regression analysis, assisted by the Eviews Enterprise statistical tool, to test the research hypotheses. The regression model is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e \dots (1)$$

Description:

Y = Stock Price

α = Constant

β_1 - β_5 = Regression Coefficient

X1 = BOPO

X2 = NPL

X3 = Institutional Ownership

X4 = Inflation

X5 = Interest Rate

e = Error

RESULTS

Descriptive statistical analysis conducted in this study aims to evaluate the quality and characteristics of the data that has been collected. The calculation of mean, median, maximum value, minimum value, standard deviation, skewness, and kurtosis is expected to provide a comprehensive picture of the distribution of research data. The following are the results of the descriptive analysis that has been carried out:

Table 2. Results of Descriptive Statistical Tests

	X1	X2	X3	X4	X5	Y
Mean	1,042767	0,095517	0,773770	3,330000	5,000000	1803,738
Median	0,866400	0,030400	0,848500	2,610000	5,500000	925,0000
Maximum	8,669300	0,988200	0,999900	5,510000	6,000000	9225,000
Minimum	0,340700	0,000000	0,210200	1,870000	3,500000	50,00000
Std. Dev	0,851973	0,170695	0,177796	1,576417	1,083974	2219,664

Source: Processed Data (2025)

The average value obtained for the BOPO variable (X1) is 1,04. This indicates that, in general, banking companies incurred operational costs that were nearly equal to or even slightly greater than their operational income. For the NPL variable (X2), measured as the proportion of non-performing loans to total loans, the average value is 0,09. This figure suggests that the general level of non-performing loans in banking companies is relatively low, at approximately 9%. For the Institutional Ownership variable (X3), measured by the proportion of shares held by institutions, the average is 0,77, which shows that institutions own the majority of shares in the sampled banking companies. For the Inflation variable (X4), measured using the Consumer Price Index (CPI), the average is 3,33, indicating a relatively stable annual inflation rate during the research period. For the Interest Rate variable (X5), measured using Bank Indonesia's benchmark interest rate, the average is 5,00 over the research period, indicating a relatively stable and moderate interest rate level. The Stock Price variable (Y), measured using the closing stock price, shows an average of 1,803.73, representing the average stock price during the research period. A standard deviation of 2,219.66 indicates a considerable data spread, reflecting significant variation in stock prices among companies during the observation period.

The appropriate model selection is determined through a series of model testing procedures. This analysis involves three key tests: the Chow test, the Hausman test, and the Lagrange Multiplier test. The following section presents the results obtained from the Chow test.

Table 3. Chow Test

Effect Tes	Statistic	d.f.	Prob. Cross-section F
	18,402394	(46,89)	0,0000
Cross-section Chi-square	331,696241	46	0,0000

Source: Processed Data (2025)

Eviews 12 software indicates that the F-test probability value $0,00 < 0,05$ which confirms that a fixed-effect model is the appropriate choice. Therefore, a Hausman test is required. The results of the Hausman test are presented in the following section.

Test Summary

Table 4. Hausman Test

Chi-Sq. Statistic	Chi-Sq.	d.f.	Prob.
Cross-section random	4,992398	5	0,4168

Source: Processed Data (2025)

Based on the data processing results from Eviews 12, the random effect model was selected because the chi-square probability value of 0,41 exceeds the significance level of 0,05. Therefore, the analysis proceeds with the Lagrange Multiplier test, and the results are presented below.

Table 5. Lagrange Multiplier Test

Test Hypothesis Cross-section	Time		Both
Breusch-Pagan	94,68222	1,532609	96,21482
	(0,0000)	(0,2157)	(0,0000)

Source: Processed Data (2025)

Based on the data processing results from Eviews 12 software, the Lagrange Multiplier test yielded a value of 0,000, less than 0,05, therefore, the random effect model was selected. Based on the results of the model selection tests—using the Chow, Hausman, and Lagrange Multiplier tests—it is concluded that the random effect model is the appropriate model to process and analyze the problem formulation in this research. The random effect model helps provide a more comprehensive picture of the relationships between the variables studied.

The next step is to conduct hypothesis testing after all classical assumption tests are met. The Classical Assumption Test is a requirement that must be fulfilled when performing regression analysis in research. The classical assumptions include several tests: the normality test, the multicollinearity test, the heteroskedasticity test, and the autocorrelation test. Based on the data processing results from Eviews 12 software, the normality test value is 0,30, greater than 0,05 ($0,309214 > 0,05$), meaning the data is normally distributed. The correlation coefficient values for all independent variables are less than 0,80, so it can be concluded that all independent variables are free from multicollinearity. The probability value of the heteroskedasticity test is greater than 0,05; thus, it can be concluded that heteroskedasticity is not present. The autocorrelation test shows a Durbin-Watson value of 1,82; since 1,82 is greater than -2 and less than 2, the data is free from autocorrelation. Next, the following are the results of the research hypothesis testing.

Table 6. Hypothesis Testing

Variable	Coefficient	Std. Error	t-Statistic	Prob
Constan	2800,363	355,5905	7,875247	0,0000
BOPO	-557,7512	310,1470	-1,852090	0,0662
NPL	-413,4743	140,1640	-2,949931	0,0037
Institutional Ownership	16,58641	7,980954	2,078249	0,0396
Inflation	63,46297	51,98593	1,220772	0,2243
Interest Rate	-216,9198	77,96078	-2,782423	0,0062

Source: Processed Data (2025)

The BOPO variable shows a probability value of 0.06, greater than the 0.05 significance level, and a coefficient of -557.75. Since the probability value exceeds 0.05, the data do not support the hypothesis that BOPO negatively affects stock prices. The NPL variable has a probability value of 0.00 (less than 0.05) and a coefficient of -413.47. A significant probability value and a negative coefficient confirm a negative relationship between NPL and stock prices. These results support the hypothesis that NPL negatively affects stock prices. For the institutional ownership variable, the probability value is 0.03 (less than 0.05) with a coefficient of 16.58. These results support the hypothesis of a positive relationship between institutional ownership and stock prices. The inflation variable yields a probability value of 0.22, above the 0.05 threshold, and its coefficient is 63.46. Therefore, the research does not support the hypothesis that inflation negatively impacts stock prices. Lastly, the interest rates variable has a probability value of 0.00 (less than 0.05) and a coefficient of -216.91. This outcome supports a negative relationship between

Hidayah & Istiqomah: Understanding Stock Price...

interest rates and stock prices, as indicated by the significant probability value and the negative coefficient.

The simultaneous test (F) evaluates whether all the independent variables impact the dependent variable. The results below show the findings from this F-test.

Table 7. F-test

F-Statistic	17,82630
Prob (F-Statistic)	0,000000
F-Table	2,22

Source: Processed Data (2025)

The simultaneous test results indicate that the F statistic value of 17,82 exceeds the F table 2,22, while the significance value of 0,00 falls under 0,05. This indicates that the combined factors of BOPO, NPLI, institutional ownership, inflation, and interest rates jointly influence stock prices.

The coefficient of determination (R^2) test is used to assess how much of the variation in the dependent variable can be explained by the independent variables. The results of this test are presented in the following section.

Table 8. R-Square

R-Square	0,910834
Adjusted R-Squared	0,859739

Source: Processed Data (2025)

The results of data processing carried out using Eviews 12 software show that the R-Square value is 0,85 or 85%, which means that independent variables such as BOPO, NPL, Institutional Ownership, Inflation, and Interest Rates can influence the dependent variable of stock prices by 85%, and other variables influence the remaining 15%.

In the investment realm, stock prices are the primary indicator of a company's performance and future outlook. Internal and external factors drive fluctuations in stock prices, especially in banking institutions, due to their unique business characteristics. This research analyzes the stock prices of banking companies listed on the Indonesia Stock Exchange (IDX) concerning BOPO, NPL, institutional ownership, inflation, and interest rates. Investors, company management, and stakeholders aim to understand the factors influencing stock values through this study to support informed investment and financial decisions.

The BOPO variable does not impact the company's stock market price performance. The BOPO is an operational efficiency measurement tool for banks, whereby higher values indicate inferior operational cost management. While BOPO proves essential for a bank's internal operational quality, it does not always create visible effects on stock market pricing dynamics. The findings match research performed by Hikmadina et al (2021) and Yusmaniarti et al (2023), which found that BOPO did not significantly affect stock prices. Investors tend to pay more attention to other potential profit and risk indicators, such as the NPL ratio, monetary policy, and macroeconomic conditions. This shows that although BOPO reflects efficiency, investors do not use BOPO as the main indicator in making investment decisions. According to Putri & Hidayat (2022) investors pay more attention to company profitability than operational efficiency when determining investment decisions. In addition, investor perceptions of the company's long-term growth prospects play a greater role than short-term operational efficiency. Therefore, although BOPO is an important measure for a company's internal management, its influence on investment decisions in the stock market is not too dominant.

The NPL variable actively impacts the company's stock price performance—the NPL

metric functions as a tool to evaluate asset value alongside credit risk assessment for banks. Stock price movements demonstrate a connection to NPL levels, where increases and decreases in NPL affect investor perceptions of company risk, which are reflected in stock price fluctuations. These results align with research conducted by Al Amri et al (2022) and Yanti (2024), which shows that NPL negatively affects stock prices. High NPLs are associated with low efficiency in asset management and the company's ability to manage problem loans, which can reduce investor interest in investing and impact declining stock prices. Conversely, low NPL reflects good loan management, increasing investor interest in investing, and increasing the company's stock price. Management must strive to reduce the NPL ratio by increasing supervision of credit policies to maintain stock price stability. These steps may include stricter credit assessments, better monitoring of loan portfolios, and effective loan collection strategies (Kurnianto et al., 2021).

The institutional ownership variable significantly affects the company's stock price. Institutional ownership represents the percentage of a company's shares held by major investment organizations such as banks, insurance companies, pension funds, and mutual funds. A high level of institutional ownership is generally viewed positively by the market, signaling strong investor confidence in the company's future outlook and the effectiveness of its corporate governance. Research by Al Amri et al (2022) shows that institutional ownership positively affects stock prices. Institutional investors tend to be more active in monitoring company performance and pressuring management to improve operational efficiency and company profitability. Other research conducted by Arifin & Rosidi (2024) shows that institutional ownership positively affects stock prices, confirming that institutional ownership can increase market confidence, because institutional investors often pressure management to maintain transparency. With tighter supervision, management has a greater incentive to make decisions that benefit shareholders, which ultimately positively impacts stock prices. The presence of institutional investors can also reduce stock price volatility by holding their ownership in the long term, so that market stability is better maintained and speculative risks can be minimized. Therefore, institutional ownership functions as a better monitoring mechanism for the company and contributes to increasing the company's value and investment attractiveness for other investors.

The inflation variable is not supported as having a significant effect on the company's stock price. Although inflation is a macroeconomic factor influencing stock prices, high inflation typically raises a company's production and operational costs. This increase can reduce net profits, making the company less attractive to investors since the returns on their investments are likely to decline. Putri & As'ari (2023) research shows that inflation has no negative effect on stock prices. This is because inflation fluctuations during this period tend to be stable and under control, so they do not have a major impact on capital market activity. In line with research by Mufidah & Sentosa (2024), it also shows that inflation has no effect because inflation fluctuations in that period are not strong enough to directly influence investment decisions or changes in stock prices.

The interest rate variable significantly affects a company's stock price. Being a vital macroeconomic factor, interest rates directly impact stock market performance. An increase in interest rates raises borrowing costs for companies, which can lead to reduced investments and limited business expansion. As a result, company profitability may decline, causing stock prices to drop (Hafizh & Abdani, 2025). Other investment instruments, such as bonds and deposits, become more appealing to investors after interest rates increase because they provide better return guarantees with less risk. Investors relocate their capital to secure instruments, which leads to falling stock demand and lowered stock prices. Research conducted by Nurliandini et al (2021) and Maulani & Riani (2021) shows that Market interest rate changes negatively affect stock market prices because they determine both market attractiveness and investor prediction of

returns. They demonstrate a restrictive money policy limiting inflation when interest rates increase. However, this rate hike reduces economic growth and decreases spending and investing practices, which harm company success. Investigators consider variations in interest rates as fundamental indicators to gauge stock market conditions during their investment decision-making (Kholillah et al., 2025).

CONCLUSION

Many elements affecting the stock prices of IDX-listed banking companies become evident through the research outcomes. Independent variable BOPO fails to demonstrate any important effect on stock market values. The evaluation of stock prices reveals that NPL plays a significant role in stock value dynamics since investors use non-performing loans data to assess banking firm performance. Investor institutions play an active role in influencing stock prices through their involvement, thus boosting market confidence. Stock prices remain unaffected by inflation rate fluctuations; however, interest rates influence stock prices, reflecting the sensitivity of the banking sector to changes in monetary policy.

The findings of this study offer valuable insights for investors and corporate management. Investors should focus on NPL, institutional ownership, and interest rates as key factors when making investment decisions. Meanwhile, corporate management needs to keep the NPL ratio low and build stronger relationships with institutional investors to enhance the attractiveness of their shares. However, this study has limitations, including its focus solely on the banking sector in Indonesia. Future research could expand the sample to include other countries to improve the generalizability of the results. Additionally, while this study considers inflation and interest rates as macroeconomic factors, subsequent studies could incorporate other variables such as monetary policy and fiscal policy. Furthermore, including technological innovation as a variable could provide insights into its effect on corporate performance, given technology's growing importance in boosting efficiency and productivity.

REFERENCES

- Abqari, L. S., & Hartono, U. (2020). Pengaruh Rasio-rasio Keuangan terhadap Harga Saham Sektor Agrikultur di Bursa Efek Indonesia Periode 2014-2018. *Jurnal Ilmu Manajemen*, 8(4), 1372. <https://doi.org/10.26740/jim.v8n4.p1372-1382>
- Abror, M. (2022). Pengaruh Current Ratio, Net Profit Margin Dan Good Corporate Governance Terhadap Harga Saham Syariah. *Jurnal Ilmiah Ekonomi Islam*, 8(3), 2661. <https://doi.org/10.29040/jiei.v8i3.5536>
- Al Amri, M. H., Sulistiyowati, L. N., & Saputra, A. (2022). Pengaruh Good Corporate Governance Dan Rasio Keuangan Terhadap Harga Saham Bank Jago Tahun 2018- 2021. *Simba - Seminar Inovasi Manajemen Bisnis Dan Akuntansi*, September.
- Arifin, A. I. R., & Rosidi, R. (2024). Pengaruh Good Corporate Governance terhadap Harga Saham Perusahaan Manufaktur Periode 2017-2022. *Studi Akuntansi dan Keuangan Indonesia*, 7(1), 77. <https://doi.org/10.21632/saki.7.1.77-93>
- Ashari, A., & Pakaya, A. R. (2022). *Pengaruh Good Corporate Governance Terhadap Harga Saham Pada Perusahaan Manufaktur Sektor Barang Konsumsi Yang Terdaftar Di Bursa Efek Indonesia Periode 2017-2020*. 5(1), 71–79.
- Azis, M., Mintarti, S., & Nadir, M. (2015). Manajemen Investasi Fundamental, Teknikal, Perilaku Investor dan Return Saham - Dr. Musdalifah Azis, S.E., M.Si., Prof. Dr. Sri Mintarti, M.Si., Maryam Nadir, S.E., M.Si. - Google Buku. In *Deepublish* (hal. 76).
- Budianto, E. W. H., & Dewi, N. D. T. (2023). Pemetaan Penelitian Rasio Biaya Operasional terhadap Pendapatan Operasional (BOPO) pada Perbankan Syariah dan Konvensional: Studi Bibliometrik VOSviewer dan Literature Review. *JAF- Journal of Accounting and Finance*, 7(1), 34. <https://doi.org/10.25124/jaf.v7i1.5995>

- Fernando, D. D., Zain, J., & Syaputra, O. (2023). The Effect Of Return On Assets, Current Ratio, Debt To Equity Ratio, And Inventory TurnOver On Manufacturing Companies In The Consumer Goods Industry Sector Listed OnThe Indonesian Stock Exchange For The 2018-2021 Period. *Management Studies and Entrepreneurship Journal*, 4(5), 6727–6743. <http://journal.yrpiiku.com/index.php/msej>
- Hafizh, M., & Abdani, F. (2025). Determinants of global Islamic bank profitability: A multi-country analysis. *JAS (Jurnal Akuntansi Syariah)*, 9(1).
- Hariawan, H. D. A., & Canggih, C. (2022). Analisis Faktor yang Mempengaruhi Keputusan Investasi di Pasar Modal Syariah: Studi Kasus di Kota Surabaya. *Jurnal Ekonomi Syariah Teori dan Terapan*, 9(4), 495–511. <https://doi.org/10.20473/vol9iss20224pp495-511>
- Hartono, A. R., Aulia, D., & Djuitaningsih, T. (2022). Pengaruh Return on Assets, Non-Performing Loan, Capital Adequacy Ratio Dan Loan To Deposit Ratio Terhadap Harga Saham. *Meida Riset Akuntansi*, 12(2), 251–270.
- Hikmadina, M., Sulistiawati, & Cahyadi, A. (2021). Pengaruh Risiko Kredit dan Efisiensi Biaya terhadap Harga Saham pada Perbankan Pemerintah yang terdaftar di BEI Periode 2008 - 2020. *Humanities, Management and Science Proceedings*, 1(2), 678–686.
- Hirmawan, N., Novietta, L., & H, I. I. K. (2023). *Pengaruh Dewan Direksi, Komisaris Independen, dan Kepemilikan Institusional Terhadap Harga Saham Melalui ROE Pada Perusahaan Manufaktur yang Terdaftar di BEI*. 2, 499–509.
- Injayanti, S. O., Maemumah, M., & Lukita, C. (2020). Pengaruh Good Corporate Governance dan Ukuran Perusahaan. *Konferensi Ilmiah Akuntansi*, 1–13.
- Isnin Yulia Alfiani Rochman, & Sari Andayani. (2023). Teori Sinyal Dalam Anomali Window Dressing 2022 Dan Penurunan Risiko Kredit Macet Pada Subsektor Perbankan: Studi Kasus Isu Resesi 2023. *Akuntansi*, 2(3), 109–122. <https://doi.org/10.55606/akuntansi.v2i3.334>
- Istianah, I., & Mahirun, M. (2024). Pengaruh BOPO (Biaya Operasional Pendapatan Operasional) ROA (Return on Assets) dan Risiko Bisnis terhadap Harga Saham. *Co-Value Jurnal Ekonomi Koperasi dan kewirausahaan*, 15(2). <https://doi.org/10.59188/covalue.v15i2.4600>
- Iswara, A. P., Prihatiningtias, Y. W., Prastiwi, A., & Wahyuni, N. (2024). The mediation role of earnings management on the effect of disclosure of corporate social responsibility on financial performance. *Accounting and Financial Review (AFRE)*, 7(3).
- Kasmir. (2019). *Analisis Laporan Keuangan* (Revisi Cet). Rajawali Press.
- Kholilah, Rahman, A. F., Ghofar, A., & Atmini, S. (2025). Measurement under IAS 40: Fair value model? Evidence from Indonesia. *Investment Management and Financial Innovations*, 22(3).
- Kurnianto, E. A., Prastiwi, A., & Si, M. (2021). Faktor-Faktor Yang Mempengaruhi Harga Ssaham (Studi Empiris Pada Perusahaan Perbankan Yang Terdaftar Di Bursa Efek Indonesia Tahun 2020-2022). *Seminar Nasional dan The 3rd Call for Syariah Paper*, 1(2), 472–482.
- Kurniawan, A. (2021). Pengaruh Inflasi, Suku Bunga, Dan Nilai Tukar Terhadap Harga Saham Perusahaan Perbankan. *Jurnal Ilmu dan Riset Manajemen*, 8(1), 1–16.
- Kusumawati, I. (2024). The Effect of Free Cash Flow, Liquidity, Profitability, And Activity On Stock Price of Health Sector Companies on The Indonesia Stock Exchange. *Management Studies and Entrepreneurship Journal*, 5(2), 6613–6629. <http://journal.yrpiiku.com/index.php/msej>
- Mankiw, N. G. (2016). *Makroekonomi*, edisi 6. Erlangga. <https://books.google.co.id/books?id=RcXYdVdz1UAC>
- Maulani, D., & Riani, D. (2021). Pengaruh Inflasi, Suku Bunga dan Rasio Keuangan terhadap Harga Saham. *Oikonomia: Jurnal Manajemen*, 17(2), 84. <https://doi.org/10.47313/oikonomia.v17i2.1244>
- Mustika, S. N., Kristianingsih, K., Tripuspitorini, F. A., & Djuwarsa, T. (2023). Analisis Pengaruh Penerapan Green Banking dan Efisiensi Biaya Operasional terhadap

- Profitabilitas Bank Umum Syariah di Indonesia. *Journal of Applied Islamic Economics and Finance*, 3(2), 436–443. <https://doi.org/10.35313/jaief.v3i2.3861>
- Nanda, S., Lantara, N., Arfah, A., Arif, M., & Ameliana, Y. (2023). SEIKO : Journal of Management & Business Pengaruh Kinerja Keuangan dan Makro Ekonomi Terhadap Harga Saham Pada Sub-Sektor Perbankan. *SEIKO : Journal of Management & Business*, 6(2), 374–383. www.idx.co.id.
- Natali, D. A., & Suhendra, E. S. (2023). Pengaruh Pandemi Covid-19, Inflasi, Nilai Tukar Rupiah (Kurs), Foreign Buy Dan Foreign Sell Terhadap Indeks Saham Perbankan. *Jurnal Ilmiah Ekonomi Bisnis*, 28(1), 69–83. <https://doi.org/10.35760/eb.2023.v28i1.5567>
- Nugraheni, R., & Paramita, R. . S. (2020). Pengaruh Kinerja Keuangan dan Makroekonomi terhadap Return Saham Perusahaan Property dan Real Estate di BEI Periode 2014-2017. *Jurnal Ilmu Manajemen*, 8(4), 1429. <https://doi.org/10.26740/jim.v8n4.p1429-1444>
- Nugroho, A. Y., & Rachmaniyah, F. (2021). Pengaruh LDR , NIM , NPL dan BOPO terhadap Harga Saham pada PT.Bank Rakyat Indonesia, Tbk 2017- 2019. *Journal Koperasi dan Manajemen*, 1(1), 28–43.
- Nurliandini, N., Juniwati, E. H., & Setiawan, S. (2021). Analisis Pengaruh Faktor Fundamental, Teknikal dan Makro Ekonomi Terhadap Harga Saham Pada Perusahaan Subsektor Kimia yang Terdaftar di Indeks Saham Syariah. *Journal of Applied Islamic Economics and Finance*, 2(1), 35–47. <https://doi.org/10.35313/jaief.v2i1.2907>
- Nurrosyida Latifa Himma, T. J. J. (2023). The Effect Of Macroeconomic Variables And Sukuk Issuance Value On Profitability Of Sharia Commercial Banks In Indonesia. *Jurnal Muamalat Indonesia, Jmi*, 3(2), 16–26. <https://doi.org/10.26418/jmi.v3i2.70766>
- Prawoto, N. (2019). Pengantar ekonomi makro. In *Terjemahan Chriswan Sungkono. Jakarta: Salemba Empat*. PT RAJAGRAFINDO PERSADA. www.rajagrafindo.co.id
- Purba, M. L., Sihotang, J., & Simatupang, F. C. (2024). Transmisi Kebijakan Moneter dan Dampaknya Terhadap Perekonomian Indonesia. *Journal of Economic, Management, Accounting and Technology*, 7(1), 78–90. <https://doi.org/10.32500/jematech.v7i1.5794>
- Purnamasari, S., & Sitorus, R. R. (2023). Pengaruh Non Performing Loan (NPL), Loan To Deposit Ratio (LDR) dan Return On Asset (ROA) terhadap Harga Saham pada Industri Perbankan. *JlIP - Jurnal Ilmiah Ilmu Pendidikan*, 6(12), 9741–9750. <https://doi.org/10.54371/jiip.v6i12.3302>
- Putri, F. & Hidayat, T. (2022). Efisiensi Operasional dan Dampaknya terhadap Harga Saham Perusahaan Perbankan di Indonesia. *Jurnal Ekonomi dan Bisnis Indonesia*, 11(1), 55–67.
- Rasyad, F. H. S., Aghsilni, A., & Wisanggara, R. (2021). Pengaruh Inflasi Dan Tingkat Suku Bunga Terhadap Harga Saham Perusahaan Pada Masa Pandemi Covid-19. *Al-Masraf: Jurnal Lembaga Keuangan dan Perbankan*, 6(2), 124. <https://doi.org/10.15548/al-masraf.v6i2.475>
- Rivandi, M. (2021). Pengaruh Struktur Kepemilikan Terhadap Pengungkapan Corporate Social Responsibility. *Jurnal Informasi, Perpajakan, Akuntansi, Dan Keuangan Publik*, 16(1), 21–40. <https://doi.org/10.25105/jipak.v16i1.6439>
- Sari, D. P. (2022). Sinyal Dan Teori Kontrak Dalam Pelaporan. *ResearchGate*, November, 1–26.
- Sugiyono. (2017). *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Sukirno, S. (2012). *Makroekonomi Teori Pengantar*. PT RajaGrafindo Persada.
- Wahyu, D. R. (2020). Analisa Non Performing Loan (NPL) dalam Menetapkan Tingkat Kolektibilitas Kredit pada PT . Bank Pembangunan Daerah Banten Tbk 2012-2016. *Jurnal Bina Bangsa Ekonomika*, 13(02), 238–243.
- Wiwiek Wiyastuty Soeparyanto, I. S. S. (2024). *Pengaruh Makro Ekonomi dan Profitabilitas Terhadap Harga Saham Pada Perusahaan Manufaktur Sub Sektor Makanan dan Minuman yang Terdaftar Di Bursa Efek Indonesia (BEI) Tahun*

- 2019- 2023. 3(April), 550–558.
- Yanti, E. P. (2024). *Pengaruh Faktor Keuangan Terhadap Harga Saham: Studi Kasus pada Perbankan Konvensional di IDX Tahun 2021-2023*. 11(02), 191–211.
- Yusmaniarti, Y., Khair, U., Marini, M., & Rahmawati, E. (2023). Pengaruh Faktor Fundamental Terhadap Harga Saham Bank Dan Lembaga Keuangan Islam Indonesia. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis*, 11(2), 1549–1562. <https://doi.org/10.37676/ekombis.v11i2.4041>
- Yusuf, M., Siswanti, T., Ramadhan, Z., Priantono, S., Sri, D., Afriza, D., Tjahyadi, I., & Septiani, D. (2022). The Effect of Ownership Structure and Iso 14001 Certification on Corporate Social Responsibility Disclosure with Company Size as A Moderating Variable. *Central European Management Journal*, 30, 145–156. <https://doi.org/10.57030/23364890.cemj.30.4.11>