

Analyzing the Impact of Domestic and Global Monetary Policy on the Jakarta Composite Index (JCI): A Study of Post-Pandemic Market Response Anomalies

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Abstract: This study aims to analyze the influence of inflation, the BI Rate, and the Fed Rate on the Jakarta Composite Index (JCI) for the 2021-2025 period. This study uses a quantitative causal associative method with an ex post facto design. The research sample consists of 60 monthly time-series secondary data observations tested using multiple linear regression with the Newey-West HAC Standard Errors method using Stata 14 software as a corrective measure to address autocorrelation issues. The results show that simultaneously, inflation, the BI Rate, and the Fed Rate significantly influence the JCI movement. Partially, the inflation rate is proven to have no significant effect on the JCI due to its relatively stable and controlled movement during the observation period. The BI Rate has a negative and significant effect on the JCI, confirming that an increase in the domestic benchmark interest rate will depress the stock index as investors shift their funds to fixed-income instruments. Conversely, the Fed Rate has a positive and significant effect on the JCI, where the increase in US interest rates is interpreted as a strong signal of global economic expansion and recovery, boosting market optimism. The ability of these three variables to explain variations in the JCI is 42.44% (based on the Adjusted R-squared value), while the remaining 57.56% is influenced by other factors outside the research model.

Keywords: BI Rate, FED Rate, IHSG, Inflation, Newey-West HAC.

INTRODUCTION

In the era of modern economics and globalization, capital markets play a crucial role as a barometer or benchmark for a country's economic progress. For companies, capital markets serve as a means of long-term funding, while for the public or investors, they offer investment alternatives to secure asset value and achieve long-term financial goals. In Indonesia, public enthusiasm for the capital market has shown extraordinary growth in recent years. According to data from the Indonesian Central Securities Depository (KSEI), the number of domestic investors surged significantly from 1.12 million in 2018 to 10.3 million by the end of 2022. The aggregate performance and sentiment of the Indonesian capital market are measured by the Jakarta Composite Index (JCI), which reflects the movement of all stocks listed on the Indonesia Stock Exchange (IDX).

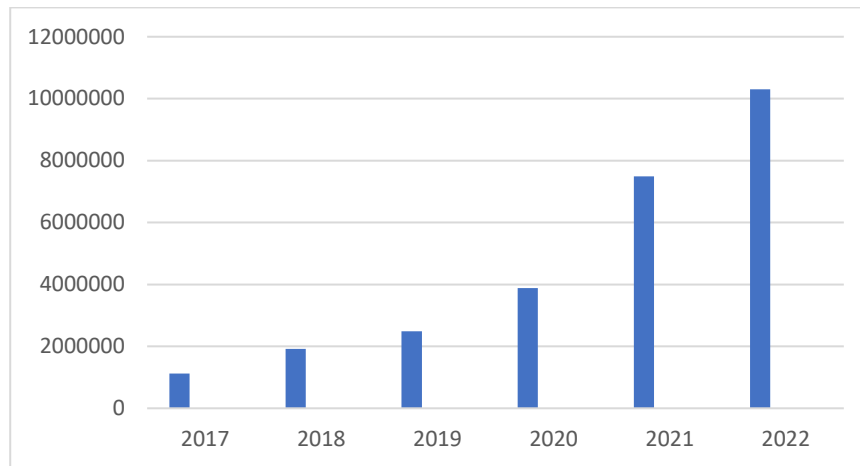


Figure 1 Graph of Number of Investors

Source: www.ksei.co.id

Despite showing a positive trend of investor growth, the JCI is in fact highly volatile and sensitive to various macroeconomic information shocks, both internal and external. Internally, inflation and domestic monetary policy, in the form of the BI Rate, are key indicators continuously monitored by market participants. Furthermore, in an open economic system, Indonesia's financial markets cannot escape global influences, particularly the monetary policy of the United States Central Bank, through the Fed Rate. The uncertainty surrounding the direction of these three macroeconomic variables poses high investment risks for millions of investors in Indonesia.

Theoretically, the relationship between these three variables and the stock market index has been widely explained by various fundamental financial theories. The Efficient Market Hypothesis (EMH) was developed by Fama (1970) states that stock prices in the capital market reflect all available public information, including inflation and interest rate announcements. Changes in these macroeconomic variables are also categorized as systematic risk in Arbitrage Pricing Theory (APT) by Ross (1976), which directly influences market players' expected returns. In addition, based on signaling theory, (Spence, 1973), changes in monetary policy, both the BI Rate and the FED Rate, are captured as signals of future economic prospects that underlie investor portfolio adjustment decisions.

Conventional concepts predict that rising inflation and domestic interest rates will negatively impact the stock market. High inflation can erode public purchasing power and increase issuers' production costs, thereby depressing net profits. A rise in the BI Rate also increases corporate costs of capital and triggers an asset substitution effect, where investors shift their funds from the stock market to safer money market instruments such as deposits. Similarly, a rise in the Fed Rate theoretically triggers capital outflows from emerging market markets back into US dollar-denominated assets, thereby depressing the Rupiah exchange rate and driving down the Jakarta Composite Index (JCI).

However, various previous empirical studies have shown inconsistent results, thus creating a clear research gap. Regarding the inflation variable, Fakhri Yudhistira & Dorothea Ririn Indriastuti (2024) as well as Ahmad et al. (2022) found a significant negative effect, however Wulan et al. (2023) stated that inflation does not affect the JCI. In the BI Rate variable, Ahmad et al. (2022) found negative impacts, while Wulan et al. (2023) actually found a positive effect. The sharpest inconsistency was found in the FED Rate variable, which theoretically has a negative impact, but a recent study by Tania & Lubis (2024) as well as Saputra & Purwanto (2023) in fact, it noted an anomaly in the form of a significant

positive influence on the JCI, which is thought to be due to unique market behavior post-COVID-19 pandemic.

Inconsistencies in previous research findings regarding the direction of the influence of domestic and global monetary policy and inflation dynamics indicate that macroeconomic transmission to the stock market is highly complex and dynamic. Based on this background and research gaps, this study aims to partially examine and reanalyze the influence of inflation, the BI Rate, and the FED Rate on the Jakarta Composite Index (JCI), focusing on the most recent period, 2021 to 2025.

RESEARCH METHOD

This research is a causal associative quantitative study that applies an ex post facto design, in which researchers analyze causal relationships between variables based on a series of events and historical data that have occurred naturally without any intervention or manipulation. The population in this study includes all monthly time-series data of macroeconomic variables and stock indices from January 2021 to December 2025. Sampling was carried out using a saturated sampling method (census), so that the entire population of 60 observations was used entirely as the research sample. (Sugiyono, 2019) The data used is secondary data collected from official institutional publications. (Sekaran & Bougie, 2016). Details of data sources include: inflation data accessed through the Central Statistics Agency (BPS) portal, the domestic benchmark interest rate (BI Rate) from Bank Indonesia, the global benchmark interest rate (FED Rate) from the Federal Reserve, and the monthly closing value of the Composite Stock Price Index (IHSG) obtained from the Indonesia Stock Exchange (IDX).

All data processing and statistical testing were performed using Stata software. The analysis began with descriptive statistics to identify data distribution. Next, classical assumption tests were applied to ensure that the model estimates met the Best Linear Unbiased Estimator (BLUE) criteria. These tests included tests for normality, multicollinearity, autocorrelation, and heteroscedasticity. (Ghozali, 2018) As a mitigation measure against the problems of autocorrelation and heteroscedasticity that often arise in time-series data, this study implements the Newey-West Heteroskedasticity and Autocorrelation Consistent (HAC) Standard Errors regression method. (Gujarati, 2016; Newey & West, 2014). The adjustment of the covariance matrix using the Newey-West method aims to produce a standard error value that is immune (robust) to the disturbance, so that decision making in hypothesis testing (t-test and F-test) remains valid and unbiased. The relationship between the independent variables in the form of Inflation (X1), BI Rate (X2), and FED Rate (X3) to the dependent variable IHSG (Y) is formulated in the following multiple linear regression functional model:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Information:

Y: IHSG

α : Constant

X1: Inflation

X2: BI Rate

X3: FED Rate

$\beta_1, \beta_2, \beta_3$: Regression Coefficients

e: error term

RESULTS AND DISCUSSION

Research result

Descriptive Statistical Analysis Results

Table 1. Results of Descriptive Statistical Analysis

Variables	Obs	Mean	Std. Dev.	Min	Max
IHSG (Y)	60	6961.716	583.8977	5862.35	8646.94
Inflation (X1)	60	0.02733	0.0137807	-0.0009	0.0595
BI Rate (X2)	60	0.0494167	0.0109154	0.035	0.0625
FED Rate (X3)	60	0.03420083	0.0211356	0.0025	0.055

Source: Processed data (2026)

Based on Table 1, the dependent variable, the Jakarta Composite Index (JCI), showed an average monthly closing value of 6.961.716, with a data volatility level (standard deviation) of 583.8977. Domestic inflation remained relatively stable, with a low average value of 2.73%. Meanwhile, the global interest rate instrument (FED Rate) recorded a wider volatility spread (Std.Dev = 2.11%) than the domestic interest rate instrument (BI Rate), which was only 1.09%.

Classical Assumption Test Results

Classical assumption testing is applied to ensure the regression model's compliance with the Best Linear Unbiased Estimator (BLUE) criteria.

Table 2. Results of the residual normality test using the Skewness and Kurtosis test for normality (sktest) method

Component	Pr(Skewness)	Pr(Kurtosis)	Adj chi2(2)	Prob > chi2
Residual	0.0464	0.3676	4.77	0.0922

Source: Processed data (2026)

Based on Table 2, the accumulative significance value of Prob > chi2 shows a figure of 0.0922 which is greater than $\alpha = 0.05$. Thus, it is concluded that the residual structure in this model is normally distributed.

Table 3. Multicollinearity Test Results

Variables	VIF	1/VIF
Inflation (X1)	18.06	0.055386
BI Rate (X2)	17.22	0.058087
FED Rate (X3)	1.41	0.707891
Mean VIF	12.23	

Source: Processed data (2026)

Table 3 records a VIF value > 10 for the FED Rate variable, with a VIF of 18.06, and the BI Rate variable, with a VIF of 17.22, indicating multicollinearity. This condition is normal in macroeconomic studies due to international monetary integration. Basic Econometric book by Gujarati (2018), these two variables are kept together in the model to avoid bias.

Table 4. Autocorrelation Test Results using the Breusch-Godfrey Lagrange Multiplier (LM) Test method

Lag (p)	chi2	Df	Prob>chi2
1	38,299	1	0.0000

Source: Processed data (2026)

Table 4 confirms the existence of an autocorrelation problem because the Prob value $> \chi^2$ $0.0000 < 0.05$. This finding underlies the decision to implement the Newey-West HAC Standard Errors regression method to correct the standard error variance of the model to ensure it remains robust and valid.

Table 5. Heteroscedasticity Test Results

Test Statistics	Coefficient Value	Prob>chi2
Heteroscedasticity (chi2)	3.51	0.0611

Source: Processed data (2026)

Based on Table 5, the probability value is $0.0611 > 0.05$, so it is confirmed that the variance of the nuisance error is constant (homoscedasticity).

Newey-West Regression Estimation Results and Hypothesis Testing

In order to mitigate previously detected autocorrelation disturbances, the model was estimated using the Newey-West covariance adjustment with an optimal lag length constraint of $p = 3$.

Table 6. Results of multiple linear regression estimation with Newey-West HAC Standard Errors

Variables	Coefficient	Newey-West Std. Err.	T	P> t	[95%Conf. Interval]
Inflation (X1)	-5029.868	5852.675	-0.86	0.394	-16754.18 6694.448
BI Rate (X2)	-90270.15	4150.1	-2.17	0.034	-173414.9 -7125.455
FED Rate (X3)	59986.4	22575.95	2.66	0.010	14761.34 105211.5
Constant	9507.997	1449.74	6.56	0.000	6603.819 12412.18

Source: Processed data (2026)

Based on the processing in Table 6, the formulation of the multiple linear regression mathematical model is determined as follows:

$$IHSG = 9507.997 - 5029.868 (\text{Inflation}) - 90270.15 (\text{BI Rate}) + 59986.4 (\text{FED Rate}) + e$$

Information regarding the strength of model fit (goodness of fit) through the coefficient of determination value is summarized below:

Table 7. Analysis of the coefficient of determination and simultaneous feasibility of the model

Model Goodness of Fit Indicator	Statistical Value
R-squared (R^2)	0.4537
Adjusted R-squared (Adj. R^2)	0.4244
Prob > F (Simultaneous Test F)	0.0045

Source: Processed data (2026)

Based on Table 7, the Prob > F value of $0.0045 < 0.05$ indicates that inflation, the BI Rate, and the FED Rate simultaneously have a significant effect on the JCI. The Adjusted R-squared value of 0.4244 explains that 42.44% of the JCI variability can be explained by the combination of these three variables, while the remaining 57.56% is driven by external factors outside the model.

The Impact of Inflation on the JCI

Based on the partial test results in Table 6, the Inflation variable produces a regression coefficient value of -5029.868 with a significance level of $P > |t|$ of 0.394. Because this probability value far exceeds the limit of $\alpha = 0.05$, the first hypothesis is rejected, meaning that Inflation does not have a significant partial effect on the movement of the JCI in the 2021-2025 period.

This phenomenon indicates that Indonesia's monthly inflation movement throughout the observation period tended to be stable and within Bank Indonesia's target corridor, which averaged around 2.73%. This measured and predictable rate of price increases led capital market players to perceive domestic inflation risk as minimal and already priced into equity instrument valuations. These empirical results support the findings of previous research by Wulan et al. (2023) which confirms inflation's inability to aggressively intervene in index volatility. However, this finding contradicts the principles of Arbitrage Pricing Theory (APT) and research from Ahmad et al. (2022) which holds that the inflation variable has a significant negative influence on the stock index.

The Influence of the BI Rate on the JCI

Based on the partial test results in Table 6, the regression coefficient value for the domestic benchmark interest rate is -90270.15 with a significance probability of 0.010. Because this probability value is smaller than $\alpha = 0.05$, the second hypothesis is accepted, confirming that the BI Rate has a negative and partially significant effect on the movement of the JCI.

The direction of this negative relationship is fully in line with the Signaling Theory framework and the transmission of conventional monetary policy. When Bank Indonesia raised the BI Rate to maintain exchange rate stability, the market perceived this policy as a signal of liquidity tightening (bad news). The increase in the benchmark interest rate automatically raised bank lending rates, increased issuers' cost of capital, and increased interest expenses, which in turn eroded their net profitability. From an investor perspective, the increase in the BI Rate made fixed-income instruments such as deposits and bonds offer more attractive nominal returns with lower risk, thus triggering capital outflows from the stock market. These research findings reinforce the empirical consistency of the study. Ahmad et al. (2022) as well as Tania & Lubis (2024), while simultaneously breaking the positive anomaly that had been discovered by Wulan et al. (2023).

The Influence of the FED Rate on the JCI

Based on Table 6, partial testing of global monetary policy yields a regression coefficient value of 59986.4 with a significance value of 0.010. The significance results below the threshold of $\alpha = 0.05$ indicate that the third hypothesis is accepted, which proves that the FED Rate has a positive and significant partial influence on the JCI.

This positive correlation finding presents an anomalous phenomenon that contradicts standard economic theory regarding capital outflow purely due to interest rate parity. Based on the Signaling Theory approach, in the post-pandemic era (2021-2025), the Fed's policy of raising the benchmark interest rate was optimistically interpreted by global financial market participants as a confirmation that the United States economy had emerged from recession and was entering a phase of solid macroeconomic expansion. This signal of global economic recovery transmitted positive sentiment toward the prospects for commodity export demand and the trading activity of issuers in Indonesia. The impact of this optimism on the fundamentals of domestic issuers proved far more dominant in attracting global investment than short-term fears of interest rate differentials. This

empirical finding also strengthens the validity of recent findings from Saputra & Purwanto (2023) as well as Tania & Lubis (2024) regarding the shifting behavior of modern capital markets.

CONCLUSION

Based on the results of data analysis and discussion regarding the influence of inflation, BI Rate, and FED Rate on the Composite Stock Price Index (IHSG) for the 2021-2025 period using the Newey-West HAC Standard Errors multiple linear regression method, the following conclusions can be drawn:

1. Simultaneously: The inflation, BI rate, and FED rate variables simultaneously have a significant influence on the movement of the JCI on the Indonesia Stock Exchange. This is indicated by the significance value of $\text{Prob} > F$ of 0.0045, which is smaller than <0.05 .
2. Partial (Inflation): The domestic inflation rate has been shown to have no significant impact on the JCI movement. This phenomenon indicates that the monthly inflation rate during the 2021-2025 period tended to be stable and controlled (averaging 2.73%), so the risk is considered minimal and has been anticipated (priced in) by capital market players.
3. Partial (BI Rate): The BI Rate has a significant negative impact on the JCI. The market responds to increases in the domestic benchmark interest rate as a signal of tighter liquidity (bad news), which can increase issuers' cost of capital and encourage investors to shift funds from the stock market to safer fixed-income instruments.
4. Partially (FED Rate): The FED Rate has a positive and significant impact on the JCI. This finding indicates an anomaly with conventional theory, where the US Federal Reserve's interest rate hike in the post-pandemic period was interpreted as a strong signal (Signalling Theory) of solid global economic expansion and recovery, thus fostering market optimism and boosting the performance of domestic issuers.
5. Coefficient of Determination: The Adjusted R-squared value of 0.4244 indicates that the model's ability to explain variations in the JCI movement is 42.44%. Meanwhile, the remaining 57.56% is explained by factors outside the research model.

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