



## Market Reaction to Information Signals: Evidence from the Indonesian Stock Market

**\*Esi Fitriani Komara<sup>1</sup>**  
Universitas Jenderal Achmad Yani,  
Indonesia

**Intan Permata Dewi<sup>2</sup>**  
Universitas Jenderal Achmad Yani,  
Indonesia

---

**\*Corresponding author:**

Esi Fitriani Komara, Universitas Jenderal Achmad Yani, Indonesia.  
✉ [esi.fk@lecture.unjani.ac.id](mailto:esi.fk@lecture.unjani.ac.id)

---

**Article Info:**

Received: April 02, 2026  
Revised: May 20, 2026  
Accepted: May 22, 2026

---

**Keywords:**

exchange rates; interest rates;  
inflation; market return

---

**Abstract**

**Background:** The capital market is involved in the allocation of funds and the reflection of economic information. However, in emerging markets such as Indonesia, responses to macroeconomic signals are not consistently observed due to information asymmetry, investor heterogeneity, and high economic uncertainty.

**Objective:** This study aims to analyze the impact of interest rates, inflation, and exchange rates on market returns and to describe the response to macroeconomic signals in the Indonesian stock market.

**Methods:** This study uses monthly time-series data from the Indonesia Stock Exchange, Bank Indonesia, and the Central Statistics Agency from 2016 to 2025. Multiple linear regression analysis is used to examine the relationships among the variables.

**Results:** Results show that exchange rates have a negative and significant impact on market returns, while interest rates and inflation have no significant impact on market returns. These findings suggest that external macroeconomic factors, especially currency fluctuations, have a greater impact on stock market reactions than domestic financial variables.

**Conclusion:** This study concludes that among the three macroeconomic information signals analyzed, exchange rates have the most dominant and statistically significant impact on market returns in Indonesia. These findings highlight that market responses in emerging markets are context-dependent and shaped by prevailing macroeconomic conditions and investor risk perceptions.

---

**To cite this article:** Komara, E. F., & Dewi, I. P. (2026). Market reactions to information signals: Evidence from the Indonesian stock market. *INKUBIS: Jurnal Ekonomi dan Bisnis*, 8 (2), 693–702. <https://doi.org/10.59261/inkubis.v8i2.212>

### INTRODUCTION

The function of the capital market is to allocate capital through the pricing of assets, which incorporates new information. According to the Efficient Market Hypothesis (EMH), stock prices and market returns reflect all relevant information. However, in emerging markets such as Indonesia, information is not always efficiently incorporated into asset prices. Therefore, market reactions are heterogeneous and fluctuate over time due to differences in market efficiency, information asymmetry, and investor characteristics.

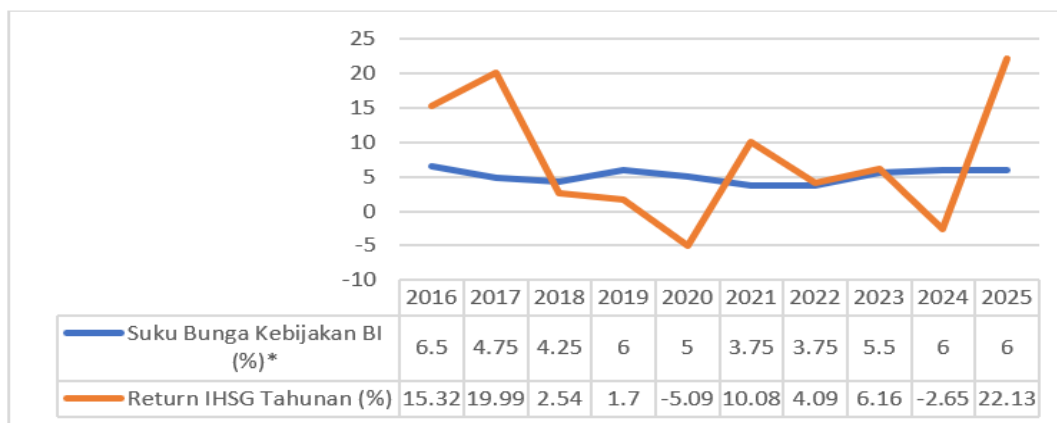
Macroeconomic indicators such as interest rates, inflation, and exchange rates are among the most used sources of information by investors. These indicators convey expectations regarding monetary policy stance, economic stability, future cash flows, and discount rates, which are reflected in stock market movements (Fama, 1981; Chen et al., 1986). In emerging markets characterized by high information asymmetry, macroeconomic indicators play an increasingly important role as informational signals that guide investor decision-making.

Previous studies have shown that market reactions to economic and financial signals are

a major focus in the financial literature, particularly in explaining the dynamics of stock returns. Research based on the Efficient Market Hypothesis argues that markets react quickly to new information through stock price and return adjustments (Fama, 1970). While many empirical studies show that macroeconomic indicators such as interest rates, inflation, and exchange rates influence market returns, the findings suggest that consistency often varies across countries and observation periods (Hesniati et al., 2022; Muttaqim & Saleh, 2025; Ofika et al., 2025; Ramadhani et al., 2024; Rapach et al., 2005; Wardana & Masdjojo, 2024). Recent studies have further shown that the impact of macroeconomic signals on the stock market fluctuates over time and is sensitive to economic conditions and market regimes (Apergis & Payne, 2020; Bekiros & Uddin, 2017; Narayan et al., 2016).

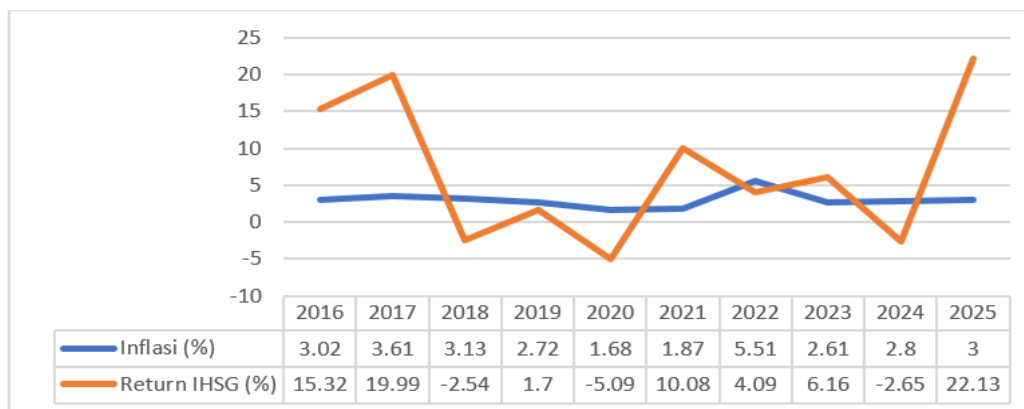
However, recent research has revealed several methodological limitations. Notably, many existing studies rely on static short-term linear models (e.g., OLS regression) that do not account for structural breaks, regime changes, and time-varying coefficients. This approach fails to capture the nonlinear and dynamic nature of market responses, especially in emerging markets characterized by institutional changes and volatile macroeconomic conditions. In addition, various empirical findings remain difficult to generalize due to differences in market efficiency, information asymmetry, and cross-country heterogeneity (Bouri et al., 2022). This situation indicates the existence of a research gap that calls for a more comprehensive analysis of market reactions to informational signals.

This relationship has been extensively examined in the literature; however, empirical evidence from the Indonesian stock market remains inconsistent. A comparison between the policy rate and market returns in Figure 1 indicates that changes in interest rates are not proportional to market returns. In several cases, negative market returns occur following interest rate cuts, while positive returns emerge after interest rate hikes. This pattern of temporal fluctuations and country-specific dependencies suggests that interest rates, acting as informational signals, are influenced by uncertainty regarding economic conditions and, more importantly, by investor expectations.



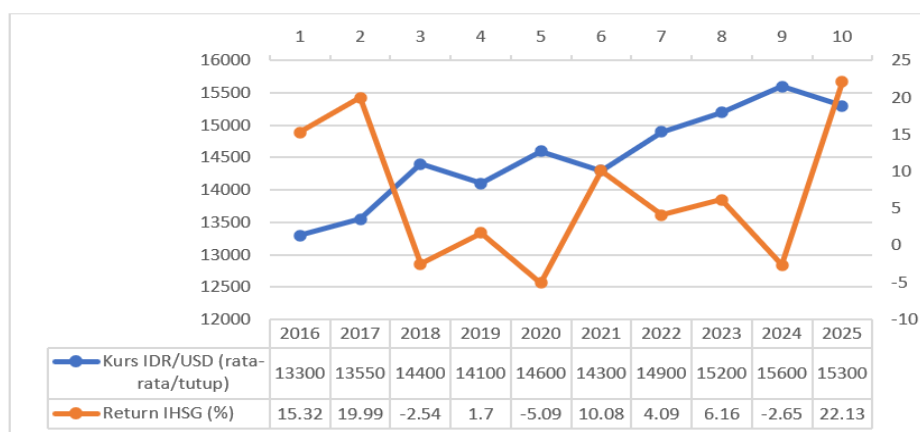
**Figure 1.** BI Indonesia Policy Interest Rate and Market Return, 2016–2025 (2026)  
 Source: Bank Indonesia and the Indonesia Stock Exchange, handled by the author

A similar phenomenon can be seen in the relationship between inflation and market returns. Theoretically, given rising costs and reduced purchasing power, inflation is expected to have a negative impact on market returns. However, in practice, relatively high inflation does not necessarily mean a decline in market returns, and low inflation does not always lead to positive outcomes. This suggests that inflation does not lock in its role as a macroeconomic signal but instead depends on current economic conditions and the market context. This pattern is shown in Figure 2 below.



**Figure 2.** Comparison of Indonesia's Inflation and Market Return (2016–2025)  
 Source: Inflation and Market Return in Indonesia, 2016–2025

The exchange rate is also considered an important macroeconomic indicator that is expected to influence market returns through trade and capital flows. However, empirical evidence suggests that the depreciation of the Indonesian rupiah does not necessarily negatively affect stock market returns, as shown in Figure 3 below. In fact, this phenomenon suggests that the relationship between exchange rates and market returns is not solely driven by theoretical expectations but also by macroeconomic fundamentals and investors' risk attitudes.



**Figure 3.** Indonesia's Exchange Rate and Market Returns, 2016-2025  
 Source: Year 2026, Processing of the Stock Exchange of Bank Indonesia and Indonesia

Factors influencing market returns—such as interest rates, inflation, and exchange rates—have been widely discussed in previous research; however, the existing theoretical evidence is diverse and inconclusive, especially for emerging markets, including Indonesia (Pilbeam & Langeland, 2015). In addition, while existing studies have independently analyzed stock price returns and firm-level performance, there is still relatively limited research that comprehensively measures investors' overall responses to macroeconomic signals.

Based on these research gaps, this study examines how policy rates, inflation, and exchange rates serve as important macroeconomic information signals, and measures market reactions through returns in Indonesia's securities market. Drawing on 120 monthly time-series observations from 2016 to 2025, the study aims to provide more comprehensive empirical evidence on the mechanisms of macroeconomic information signaling in Indonesia's stock market responses, thereby contributing to the growing literature on information efficiency and asymmetry in emerging markets.

**METHOD**

This study aimed to analyze how the Indonesian stock market responded to economic information signals, especially in relation to the formation of market returns that reflect the

collective response of investors. This study used a descriptive and associative research approach. The conceptual framework of variables, indicators, and measurement scales was presented in Table 1.

**Table 1. Operationalization of Variables**

Variable	Variable Concepts	Indicator	Scale
Market Reaction (Y)	The stock market's reaction to economic information is reflected in the overall market price movement (Chen et al., 1986; Fama, 1991)	The price-to-revenue ratio is calculated as the change in JCI from the period $t$ to $t-1$ : $Rm_t = (JCI_t - JCI_{t-1}) / JCI_{t-1}$	Ratio
Information Signals - Interest Rate (X <sub>1</sub> )	Monetary policy signals reflect central bank stance (Narayan et al., 2016)	The monthly policy interest rate set by Bank Indonesia as an indicator of the direction of monetary policy during the $T$ period is	Ratio
Information Signals - Inflation (X <sub>2</sub> )	Sign of price stability and inflationary pressures in the economy (Fama, 1981; Chen et al., 1986)	Inflation rate = $(CPI_t - CPI_{t-1}) / CPI_{t-1} \times 100\%$	Ratio
Information Signals - Exchange Rate (X <sub>3</sub> )	External environmental signals and macroeconomic risks (Apergis & Payne, 2020)	$KT_t = (KT_t - KT_{t-1}) / KT_{t-1}$ KT refers to the central exchange rate of Bank Indonesia	Ratio

The study covered the Indonesian stock market, which reflected the trading activity of all stocks listed on the Indonesia Stock Exchange. The sample consisted of a total of 120 monthly observations, including monthly time-series data showing market performance through the Composite Stock Price Index, as well as macroeconomic indicators such as policy interest rates, inflation rates, and the exchange rate between the Indonesian rupiah and the US dollar. All variables shared a consistent monthly data frequency to ensure comparability across the analysis.

The data used were secondary data collected from the Indonesia Stock Exchange (IDX), Bank Indonesia (BI), and the Central Statistics Agency (BPS). The use of monthly data aimed to maintain frequency consistency across variables and provide a more comprehensive analysis of the dynamics of market responses.

The data analysis phase of this study consisted of the following steps: (1) descriptive statistics, used to describe the characteristics of the data, such as the mean, minimum, maximum, and standard deviation of each study variable; (2) normality tests, conducted to ensure that the time-series data were stable and free from unit roots, thereby avoiding spurious regression prior to the estimation of the multiple regression model; (3) classical assumption tests (including multicollinearity, heteroskedasticity, and autocorrelation tests), performed after model estimation to ensure the validity of the regression model; (4) multiple linear regression model estimation, used to analyze the impact of macroeconomic information signals such as policy interest rates, inflation, and exchange rates on returns in the Indonesian stock market; (5) significance and hypothesis testing, conducted based on the multiple regression results to assess the influence of independent variables on the dependent variable using partial significance tests (t-tests) and simultaneous significance tests (F-tests); and (6) interpretation and discussion of results, used to interpret the estimated hypotheses and test results in relation to theoretical frameworks and previous empirical findings, and to draw conclusions aligned with the research objectives.

Hypothesis testing was conducted using partial significance tests (t-tests) to assess the impact of each independent variable on market returns, and simultaneous testing (F-tests) to assess the joint effects of all independent variables. The hypothesis of this study was:

#### Partial Inspection:

1. H<sub>0</sub>: ( $\beta_1 = 0$  Interest rates do not affect market returns)

- $H_1 : (\beta_1 < 0$  interest rates negatively impact market return)
2.  $H_0 : (\beta_2 = 0$  Inflation does not affect market return)
- $H_2 : (\beta_2 < 0$  Inflation negatively impacts market returns)
3.  $H_0 : (\beta_3 = 0$  exchange rate does not affect market return)
- $H_3 (\beta_3 < 0$  exchange rate negatively impacts market returns)

### Simultaneous Inspection:

$H_0 : (\beta_1 = \beta_2 = \beta_3 = 0$  Interest rates, inflation, and exchange rates do not affect market returns at the same time)

$H_1 : (\beta_1 \neq \beta_2 \neq \beta_3 \neq 0$  Interest rates, inflation, and exchange rates affect market returns at the same time)

## RESULTS AND DISCUSSION

### Results

The results of descriptive statistics for the research variables are presented in Table 2.

**Table 2.** Descriptive statistics of the study variables

	Market_Return	Interest_Rate	Inflation	Exchange_Rate
Average	0.005990	0.050250	-0.106712	0.001727
Max	0.094400	0.072500	0.893200	0.103000
Minimum	-0.167600	0.035000	-12.44440	-0.060600
Std. Dev.	0.037189	0.009939	1.149702	0.018378
Observations	120	120	120	120

Based on Table 2, this study analyzed four main variables: market returns, interest rates, inflation, and exchange rates, using a total of 120 observations for each variable. The average value of the market return variable is 0.005990, with a maximum value of 0.094400, a minimum value of -0.167600, and a standard deviation of 0.037189, indicating fluctuations in market returns during the observation period. The average value of the interest rate change is 0.050250, with a maximum value of 0.072500, a minimum value of 0.035000, and a standard deviation of 0.009939, indicating relatively low fluctuations. The average value of the inflation variable is -0.106712, with a maximum value of 0.893200, a minimum value of -12.44440, and a standard deviation of 1.149702, indicating the highest volatility among all variables. On the other hand, the average value of the exchange rate variable is 0.001727, with a maximum value of 0.103000, a minimum value of -0.060600, and a standard deviation of 0.018378, indicating that there are fluctuations in the exchange rate during the study period, although the rate of change is relatively lower than that of inflation.

After the descriptive statistical analysis, the next step is to conduct a stationarity test to ensure that all variables used in the study meet the basic assumptions of time series analysis. The results of the stationarity test using the Augmented Dickey-Fuller (ADF) test are shown in Table 3.

**Table 3. Unit Root Test Results**

Extended Augmented Dickey-Fuller Test Statistics.	t-Statistics *	P-Value.
Market_Return	-9.818049	0.0000
Interest_Rate	-6.855586	0.0000
Inflation	-10.68320	0.0000
Exchange_Rate	-10.45717	0.0000

Based on the results of the unit root (stationarity) test, the p-value of all variables was 0.0000 (<0.05), indicating statistical significance and that all variables are stationary and do not contain a unit root. Therefore, the data are suitable for further analysis. Subsequently, classical assumption tests will be performed to ensure that the regression model does not violate the

underlying assumptions of the estimation.

**Table 4.** Multicollinearity test results

Variable	Coefficients	Uncentered	Centered
	Variance	VIF	VIF
Interest_Rate	0.100447	27.21701	1.016436
Inflation	7.45E-06	1.017410	1.008648
Exchange_Rate	0.029154	1.017682	1.008704
C	0.000263	27.21922	NA

First, the results of the multicollinearity test showed that the variance inflation factor (VIF) values for all independent variables were below 10—interest rates (1.016436), inflation (1.008648), and exchange rates (1.008704). These results indicate that the regression model does not have a multicollinearity problem, suggesting that the independent variables are not strongly correlated with one another.

**Table 5.** Heteroskedasticity test results

Heteroskedasticity test: Breusch-Fagan-Godfrey Test			
Hypothesis Zero: Homoskedasticity			
Statistics F	1.076505	Prob. F (3,116)	0.3619
Obs*R Squared	3.250384	Prob. Chi-square (3)	0.3546
Scaled explained SS	4.673662	Prob. Chi-square (3)	0.1973

In addition, the heteroskedasticity test using the Breusch-Pagan-Godfrey method showed that the squared Obs\*R-squared had a probability value of 0.3546, which is higher than the significance level of 0.05. This indicates that the model does not exhibit a heteroskedasticity problem and that the residual variance is constant (homoskedasticity).

**Table 6.** Autocorrelation test results

Breusch-Godfrey serial correlation LM test:			
Zero hypothesis: No serial correlation at up to 2 lags			
Statistics F	0.147060	Prob. F (2,114)	0.8634
obs*R Rectangle	0.308803	Prob. Chi-square (2)	0.8569

Third, the autocorrelation test using the Lagrange Multiplier (LM) test for serial correlation showed that the probability value of Obs\*R-squared was 0.8569, which is greater than 0.05. Therefore, it can be concluded that the regression model does not exhibit autocorrelation problems.

Based on the results of the classical assumption tests, the regression model meets the criteria of the Best Linear Unbiased Estimator (BLUE) and is suitable for further analysis. Furthermore, regression estimation is conducted to examine the impact of the independent variables on market returns. The results of the regression estimation are shown in Table 7.

**Table 7.** Multiple regression results

Variable	Coefficients	Std. Error	t-Statistics	Prob
Interest_Rate	-0.350609	0.316934	-1.106252	0.2709
Inflation	-0.002242	0.002729	-0.821492	0.4131
Exchange_Rate	-0.851028	0.170744	-4.984236	0.0000
C	0.024838	0.016233	1.530151	0.1287
R-squared	0.181238	Mean dependent var		0.005990
Adjusted R-Square	0.160063	SD dependent var		0.037189
S.E.of regression	0.034083	Akaike Info criterion		-3.887262
Sum squared resid	0.134753	Schwartz Criterion		-3.794345

Log likelihood	237.2357	Hannan-Quinn criter	-3.849528
F-statistic	8.559112	Durbin Watson Stat	2.071364
Prob (F-Statistic)	0.000035		

The estimates in Table 7 show that only the exchange rate variable has a significant negative impact on market returns ( $p < 0.05$ ), while interest rates and inflation have no significant impact on market returns ( $p > 0.05$ ). An adjusted R-squared value of 0.160063 indicates that the model accounts for 16.01% of the variation in market returns, with the remaining variation explained by other variables not included in the research model.

## Discussion

In terms of descriptive statistics, the inflation variable in this study exhibits greater variation than the other variables, with a standard deviation of 1.149702 and an extreme minimum value of -12.44440. This should be interpreted with caution, as it may reflect anomalies in the data or period-specific shocks (e.g., the 2020 COVID-19 pandemic). During the observation period, significant price movements had the potential to affect macroeconomic conditions and capital market participants. From a macroeconomic perspective, high inflation volatility increases uncertainty and reduces investor interest in investing.

On the other hand, interest rate fluctuations show relatively low volatility, indicating a stable monetary policy environment. While this can be a positive signal for market participants, stable interest rates generally provide greater certainty in investment and financial decision-making.

It can also be observed that the market return variable shows mild fluctuations in stock performance. This indicates that stock market performance continues to be influenced by external factors such as macroeconomic variables, including inflation and exchange rates. Although exchange rates also fluctuate, their overall variability is lower than that of inflation. Exchange rate movements are closely related to foreign exchange market trends, which can affect the performance of companies engaged in international trade.

Overall, these results show that macroeconomic variables exhibit different levels of volatility and varying impacts on equity market performance. In light of this divergence, a stationarity test should be conducted on all data, as it has a significant impact on subsequent empirical validation.

Stationarity tests are an important component in time series analysis, and the data should not contain unit roots to avoid bias and incorrect estimates. In this study, the Augmented Dickey-Fuller (ADF) test will be used to determine whether each variable satisfies the stationarity condition.

Based on the results of the Augmented Dickey-Fuller (ADF) test, all study variables show probability values greater than or equal to the 5% significance level. Therefore, the conclusion is that market returns, interest rates, inflation rates, and exchange rates are stationary, as the ADF test statistics are sufficiently large (in absolute terms) to reject the unit root null hypothesis. This condition confirms that the data do not contain a unit root and satisfy stationarity assumptions (i.e., constant mean and variance over time), making them suitable for multiple linear regression analysis without first-differencing transformations.

Furthermore, these results imply that the fluctuations of all variables are transitory (mean-reverting) and do not indicate a long-term explosive trend. Therefore, the data in this study meet the basic assumptions of time-series econometric analysis and can be used to estimate empirical models without differencing transformations.

In addition, classical assumption tests such as multicollinearity tests, heteroskedasticity tests, and autocorrelation tests are also performed to validate whether the regression model assumptions are satisfied. Multicollinearity refers to the correlation among independent variables. In addition, the normality of residuals indicates whether errors are normally distributed, which helps validate model fit.

The absence of autocorrelation means that errors and residuals are not correlated over time. This condition is particularly important in time series analysis because it shows that the model effectively captures data patterns without bias arising from serial correlation in the error terms.

In general, the fact that all assumptions are largely satisfied indicates that the regression model meets the Best Linear Unbiased Estimator (BLUE) conditions. Therefore, the estimated results are considered reliable and suitable for further hypothesis testing. The analysis then shifts to the regression estimation results, focusing on the impact of independent variables on market returns.

### **Impact of Market Returns and Interest Rates**

The study finds that interest rates have no significant impact on market returns. This suggests that interest rate fluctuations during the observation period do not significantly influence stock market investment decisions.

In theory, interest rates are an important monetary policy tool that affects investment through the cost of capital. The lack of significance in this case may be due to relatively stable interest rates during the testing period, meaning they may not have provided strong enough signals for investors to adjust their portfolios. This implies that, under certain conditions—particularly when monetary policy is accommodative—the stock market may be less sensitive to interest rate movements.

These results are consistent with Pamba (2025), which suggests that interest rates may not have a significant impact on the stock market in certain cases. In addition, robust research Shehab (2023) provides further evidence of reduced stock market sensitivity to interest rates during periods of economic stability or consistent monetary policy. According to another study Časta (2023), in many cases, other macroeconomic factors such as exchange rates or global conditions have a greater impact on stock returns than interest rates.

### **Impact of Market Return and Inflation**

Inflation does not have a significant impact on market returns. These results indicate that inflation was not a key determinant of investment decisions during the observation period.

Theoretically, high inflation reduces purchasing power and creates economic uncertainty. However, when inflation remains relatively stable or moderate, it may not significantly affect the stock market. This suggests that investors did not react strongly to inflation fluctuations, possibly because inflation expectations were already incorporated into asset prices.

These results are consistent with Časta (2023), which shows that when inflation is stable, its impact on equity returns is often not statistically significant. Moreover, according to Barakat (2016), inflation does not directly affect stock returns in most emerging markets, as other macroeconomic factors tend to dominate market behavior. Another study Khan (2023) states that as long as inflation remains within a manageable range, stock markets do not react strongly to its changes.

### **Impact of Market Return and Exchange Rate**

The findings show a significantly negative relationship between exchange rate fluctuations and market returns. This means that currency depreciation is generally associated with poorer stock market performance. Theoretically, exchange rate depreciation increases import costs, reduces corporate profit margins, and weakens pricing power, especially for firms reliant on foreign inputs.

These results are consistent with macroeconomic theory, which suggests that exchange rates influence financial markets through trade and investment channels. Moreover, Časta (2023) shows that stock returns are significantly affected by exchange rate fluctuations. As previous research Chkili (2014) suggests, currency depreciation negatively affects stock markets, particularly in emerging economies. In addition, Khan (2023) shows that currency fluctuations are among the most prominent macroeconomic factors influencing stock market volatility and returns globally.

### **The combined impact of interest rates, inflation, and exchange rates on segment earnings**

In addition to partial tests, the findings show that macroeconomic variables such as interest rates, inflation, and exchange rates simultaneously have a significant impact on market returns. These findings suggest that these variables jointly explain stock market movements.

These results indicate that stock market reactions are not solely driven by information

contained in a single macroeconomic indicator, but rather reflect the combined effects and interactions of multiple information signals received during the same period. In this context, investors evaluate economic conditions in a holistic manner, considering interest rates, inflation, and exchange rate movements together when forming investment expectations and decisions.

These results are consistent with the macroeconomic framework and the efficient market hypothesis, which suggests that stock prices reflect all relevant available information. Therefore, although not all variables are individually significant, they collectively help explain variations in market returns.

In addition, the evidence supports the complex interaction between macroeconomic factors and stock market behavior in emerging markets. Therefore, analyses that account for these simultaneous dynamics are necessary to provide a comprehensive understanding of market behavior.

### CONCLUSION

This study shows that macroeconomic variables have different levels of impact on market returns. Technically, inflation exhibits the highest volatility, while interest rates remain relatively stable during the observation period. The empirical results show that exchange rates have a negative and statistically significant impact on market returns, suggesting that currency devaluations tend to reduce stock market performance. On the other hand, the effects of interest rates and inflation are not statistically significant, suggesting that these variables did not significantly influence investors' decision-making during the observation period. These findings underscore that exchange rates are the dominant macroeconomic signal, reaffirming that market reactions in emerging markets are contextually dependent and shaped by prevailing macroeconomic fundamentals and investors' risk perceptions.

### ACKNOWLEDGEMENT

This research is supported by the Institute for Research and Community Service (LPPM), Jenderal Ahmad Yani University. This support plays an important role in data collection, analysis, and proofreading of research papers.

### AUTHOR CONTRIBUTION STATEMENT

Esi Fitriani Komara is responsible for conceptualizing the research framework, designing research methods, conducting data analysis, and writing manuscripts. Intan Permata Dewi will be provided for data collection, data processing, literature review, manuscript analysis, and input for improvement. All authors read and agree with the final manuscript and state that there is no conflict of interest.

### REFERENCES

- Al Shehab, A. (2023). Macroeconomic determinants of stock market returns: Evidence from Oman. *Asian Economic and Financial Review*, 13(11), 801. <https://doi.org/10.55493/5002.v13i11.4866>
- Apergis, N., & Payne, J. E. (2020). NAFTA and the convergence of CO2 emissions intensity and its determinants. *International Economics*, 161, 1–9. <https://doi.org/10.1016/j.inteco.2019.10.002>
- Barakat, M. R., Elgazzar, S. H., & Hanafy, K. M. (2016). Impact of macroeconomic variables on stock markets: Evidence from emerging markets. *International Journal of Economics and Finance*, 8(1), 195–207. <https://doi.org/10.5539/ijef.v8n1p195>
- Bekiros, S., & Uddin, G. S. (2017). Extreme dependence under uncertainty: an application to stock, currency and oil markets. *International Review of Finance*, 17(1), 155–162. <https://doi.org/10.1111/irfi.12095>
- Bouri, E., Demirer, R., Gabauer, D., & Gupta, R. (2022). Financial market connectedness: The role of investors' happiness. *Finance Research Letters*, 44, 102075. <https://doi.org/10.1016/j.frl.2021.102075>
- Časta, M. (2023). Inflation, interest rates and the predictability of stock returns. *Finance Research Letters*, 58, 104380. <https://doi.org/https://doi.org/10.1016/j.frl.2023.104380>

- Chen, N.-F., Roll, R., & Ross, S. A. (1986). Economic forces and the stock market. *Journal of Business*, 383–403. <https://doi.org/10.1086/296344>
- Chkili, W., & Nguyen, D. K. (2014). Exchange rate movements and stock market returns in a regime-switching environment: Evidence for BRICS countries. *Research in International Business and Finance*, 31, 46–56. <https://doi.org/https://doi.org/10.1016/j.ribaf.2013.11.007>
- Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25(2), 383–417. <https://doi.org/10.2307/2325486>
- Fama, E. F. (1981). Stock returns, real activity, inflation, and money. *The American Economic Review*, 71(4), 545–565.
- Fama, E. F. (1991). Efficient capital markets: II. *The Journal of Finance*, 46(5), 1575–1617. <https://doi.org/10.1111/j.1540-6261.1991.tb04636.x>
- Hesniati, H., Ogawa, A. Y., Clarence, A., Topher, C., & Engelina, J. (2022). Pengaruh Inflasi, Interest Rate, dan Exchange Rate terhadap IHSG di Bursa Efek Indonesia pada Tahun 2011-2021. *Studi Ilmu Manajemen Dan Organisasi*, 3(1), 261–271.
- Khan, M. F. H., & Billah, M. M. (2023). Macroeconomic factors and Stock exchange return: A Statistical Analysis. *ArXiv Preprint ArXiv:2305.02229*.
- Muttaqim, H., & Saleh, M. (2025). The Influences of Exchange Rates, Money Supplies, and Interest Rates on IHSG Using Inflation as a Moderating Variable. *Jurnal Ilmiah Manajemen Kesatuan*, 13(4), 2795–2806. <https://doi.org/10.37641/jimkes.v14i3.3461>
- Narayan, S., Beck, M. W., Reguero, B. G., Losada, I. J., Van Wesenbeeck, B., Pontee, N., Sanchirico, J. N., Ingram, J. C., Lange, G.-M., & Burks-Copes, K. A. (2016). The effectiveness, costs and coastal protection benefits of natural and nature-based defences. *PloS One*, 11(5), e0154735. <https://doi.org/10.1371/journal.pone.0154735>
- Ofika, T. O., Supheni, I., & Rahayu, D. P. (2025). The Role of Inflation, SBI Interest Rates, and The Dollar Exchange Rate In Influencing The Composite Stock Price Index (IHSG) Study In 2020-2023. *Proceeding Kilisuci International Conference on Economic & Business*, 3.
- Pamba, D. (2025). Asymmetric Impact of Interest Rates on Stock Market Returns: Empirical Evidence from South Africa. *Studies in Business and Economics*, 20(2), 200–217. <https://doi.org/10.2478/sbe-2025-0031>
- Pilbeam, K., & Langeland, K. N. (2015). Forecasting exchange rate volatility: GARCH models versus implied volatility forecasts. *International Economics and Economic Policy*, 12(1), 127–142. <https://doi.org/10.1007/s10368-014-0289-4>
- Ramadhani, Y. C., Kartiko, A., & Mayasari, E. (2024). The Impact of Inflation, Interest Rates, Exchange Rates, and Money Supply on IHSG. *Indonesian Interdisciplinary Journal of Sharia Economics (IJJSE)*, 7(3), 8043–8062. <https://doi.org/10.31538/ijjse.v7i3.6223>
- Rapach, D. E., Wohar, M. E., & Rangvid, J. (2005). Macro variables and international stock return predictability. *International Journal of Forecasting*, 21(1), 137–166. <https://doi.org/10.1016/j.ijforecast.2004.05.004>
- Wardana, A. K., & Masdjojo, G. N. (2024). The Effect of Inflation, Interest Rates, and Exchange Rates on The Jakarta Composite Index. *Jurnal Manajemen Bisnis*, 11(1), 151–163.