

***THE IMPACT OF INTEREST RATES AND EXCHANGE RATES ON THE
INDONESIA COMPOSITE STOCK PRICE INDEX:
THE MEDIATING ROLE OF INFLATION DURING 2016–2024***

**DAMPAK SUKU BUNGA DAN NILAI TUKAR TERHADAP INDEKS HARGA
SAHAM GABUNGAN INDONESIA:
PERAN MEDIASI INFLASI SELAMA PERIODE 2016–2024**

Muhammad Farhan Robbani¹, Nitri Mirosea², Andriyansah³

Universitas Terbuka^{1,2,3}

muhammad.farhanrobbani11@gmail.com¹

ABSTRACT

This study aims to analyze the effect of interest rates and exchange rates on the Indonesia Composite Stock Price Index (IHSG) with inflation as a mediating variable during the period 2016–2024. The study employs a quantitative approach using monthly time-series data obtained from Bank Indonesia (BI), the Central Statistics Agency (BPS), and the Indonesia Stock Exchange (IDX). The variables consist of the BI 7-Day Reverse Repo Rate as a proxy for interest rates, the Rupiah exchange rate against the United States Dollar (USD), inflation measured by the Consumer Price Index (CPI), and IHSG as the dependent variable. The data were analyzed using multiple linear regression and path analysis. Prior to estimation, stationarity tests using the Augmented Dickey-Fuller (ADF) test were conducted, and all variables were found to be stationary at first difference (I(1)). The results show that interest rates have a positive and significant effect on inflation, while exchange rates do not significantly affect inflation. Furthermore, inflation and interest rates do not significantly affect IHSG, whereas exchange rates have a negative and significant effect on IHSG. The mediation test indicates that inflation does not mediate the relationship between interest rates and exchange rates on IHSG. The findings suggest that exchange rate stability is the most dominant macroeconomic factor influencing stock market performance in Indonesia. These results provide important implications for monetary policy authorities and investors in managing macroeconomic risks in financial markets.

Keywords: Interest rate, Exchange rate, Inflation, IHSG, Mediation analysis

ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh suku bunga dan nilai tukar terhadap Indeks Harga Saham Gabungan (IHSG) dengan inflasi sebagai variabel mediasi selama periode 2016–2024. Penelitian ini menggunakan pendekatan kuantitatif dengan data deret waktu (*time-series*) bulanan yang diperoleh dari Bank Indonesia (BI), Badan Pusat Statistik (BPS), dan Bursa Efek Indonesia (BEI). Variabel-variabel yang digunakan meliputi BI 7-Day Reverse Repo Rate sebagai proksi suku bunga, nilai tukar Rupiah terhadap Dolar Amerika Serikat (USD), inflasi yang diukur dengan Indeks Harga Konsumen (IHK), serta IHSG sebagai variabel dependen. Data dianalisis menggunakan regresi linear berganda dan analisis jalur (*path analysis*). Sebelum estimasi, dilakukan uji stasioneritas menggunakan uji *Augmented Dickey-Fuller* (ADF), dan seluruh variabel terbukti stasioner pada tingkat *first difference* (I(1)). Hasil penelitian menunjukkan bahwa suku bunga berpengaruh positif dan signifikan terhadap inflasi, sedangkan nilai tukar tidak berpengaruh signifikan terhadap inflasi. Lebih lanjut, inflasi dan suku bunga tidak berpengaruh signifikan terhadap IHSG, sementara nilai tukar berpengaruh negatif dan signifikan terhadap IHSG. Uji mediasi menunjukkan bahwa inflasi tidak memediasi hubungan antara suku bunga dan nilai tukar terhadap IHSG. Temuan ini mengindikasikan bahwa stabilitas nilai tukar merupakan faktor makroekonomi paling dominan yang memengaruhi kinerja pasar saham di Indonesia. Hasil ini memberikan implikasi penting bagi otoritas kebijakan moneter dan investor dalam mengelola risiko makroekonomi di pasar keuangan.

Kata kunci: Suku bunga, Nilai tukar, Inflasi, IHSG, Analisis mediasi

INTRODUCTION

The capital market plays an important role in supporting economic development by channeling funds from

investors to productive sectors. In Indonesia, the Indonesia Composite Stock Price Index (IHSG) is widely used as the main indicator of stock market

performance and reflects overall investor sentiment and economic conditions.

Macroeconomic variables such as inflation, interest rates, and exchange rates are commonly considered key determinants of stock market movements. Inflation reflects the general price level in the economy and affects purchasing power and corporate profitability. High inflation tends to reduce real returns on investment, thereby negatively affecting stock market performance.

Interest rates are one of the primary instruments of monetary policy used by Bank Indonesia to maintain economic stability. An increase in interest rates raises the cost of borrowing and tends to shift investor preference from riskier assets such as stocks to safer financial instruments such as deposits and bonds.

Exchange rates also play a crucial role in determining financial market stability. A depreciation of the Rupiah increases the cost of imported goods and may reduce corporate profitability, particularly for companies dependent on imported inputs. In addition, exchange rate volatility affects foreign investor confidence and capital flows in the stock market.

Previous studies have shown inconsistent results regarding the relationship between macroeconomic variables and stock market performance. Some studies find that inflation and interest rates significantly affect stock prices, while others report insignificant effects. This inconsistency indicates the need for further empirical investigation, particularly by incorporating inflation as a mediating variable.

Therefore, this study aims to analyze the effect of interest rates and exchange rates on IHSG, both directly and indirectly through inflation, during the period 2016–2024.

LITERATURE REVIEW

Efficient Market Hypothesis

The Efficient Market Hypothesis (EMH) states that financial markets are efficient in reflecting all available information. In an efficient market, macroeconomic variables such as inflation, interest rates, and exchange rates are quickly incorporated into stock prices, affecting investor behavior and market movements.

Loanable Funds Theory

The Loanable Funds Theory explains that interest rates are determined by the supply and demand for funds. Higher interest rates reduce investment activities, which in turn may negatively affect stock market performance.

Purchasing Power Parity (PPP)

PPP theory explains the relationship between exchange rates and price levels. Changes in exchange rates can influence inflation through import prices, thereby affecting economic stability.

Interest Rate Parity (IRP)

IRP explains the relationship between interest rate differentials and exchange rate movements, which influence capital flows in financial markets.

Inflation as a Mediating Variable

Inflation acts as a transmission mechanism that connects monetary policy and external shocks to financial market performance. Changes in interest rates and exchange rates can influence inflation, which subsequently affects stock prices.

Hypothesis Development

H1: Interest rates affect inflation

H2: Exchange rates affect inflation

H3: Inflation affects IHSG

H4: Interest rates affect IHSG

H5: Exchange rates affect IHSG

H6: Inflation mediates the effect of interest rates on IHSG

H7: Inflation mediates the effect of exchange rates on IHSG

RESEARCH METHOD

This study uses a quantitative causal research design with time-series data from January 2016 to December 2024. The data are obtained from Bank Indonesia, BPS, and IDX.

Variables:

- X1: Interest Rate (BI 7-Day Reverse Repo Rate)
- X2: Exchange Rate (IDR/USD)
- Z: Inflation (CPI YoY)
- Y: IHSG

Analytical Model:

Model 1:

$\text{Inflation} = \beta_0 + \beta_1 \text{Interest Rate} + \beta_2 \text{Exchange Rate} + \varepsilon$

Model 2:

$\text{IHSG} = \beta_0 + \beta_1 \text{Inflation} + \beta_2 \text{Interest Rate} + \beta_3 \text{Exchange Rate} + \varepsilon$

Method:

- Augmented Dickey-Fuller (ADF) test for stationarity
- Multiple regression analysis
- Path analysis for mediation

All variables become stationary after first differencing (I(1)), making the data suitable for regression analysis.

RESULTS AND DISCUSSION

Descriptive Statistics

The macroeconomic indicators observed in Indonesia during the period 2016–2024 exhibit dynamic movements influenced by both domestic and global economic conditions. These fluctuations were driven by several major events, including monetary policy adjustments by Bank Indonesia, the COVID-19 pandemic shock, and global geopolitical tensions.

Inflation in Indonesia during the study period recorded an average level of approximately 3 percent, indicating relatively stable price conditions within the inflation targeting framework implemented by Bank Indonesia. However, inflation dynamics show noticeable variation across sub-periods. The highest inflation occurred in 2022, reaching around 5.95 percent, mainly driven by global energy price increases and supply chain disruptions following the post-pandemic recovery phase. In contrast, the lowest inflation level was recorded in 2020 at approximately 1.32 percent, reflecting weak aggregate demand during the early COVID-19 pandemic period.

The Bank Indonesia 7-Day Reverse Repo Rate (BI7DRR), used as a proxy for the interest rate, averaged around 4.93 percent during the observation period. The interest rate showed significant fluctuations, reaching its highest level at 7.25 percent during tightening monetary policy periods aimed at controlling inflationary pressure and stabilizing the exchange rate. Meanwhile, the lowest interest rate was recorded at 3.50 percent, reflecting accommodative monetary policy implemented to support economic recovery.

The exchange rate of the Indonesian Rupiah against the US Dollar demonstrated relatively high volatility compared to other macroeconomic variables. The average exchange rate stood at approximately IDR 14,530 per USD, with the weakest Rupiah value reaching IDR 16,375 per USD and the strongest level at IDR 13,047 per USD. These fluctuations were largely influenced by global financial conditions, particularly US Federal Reserve policy changes, capital flow volatility, and global uncertainty.

Overall, the Indonesia Composite Stock Price Index (IHSG) exhibited movements consistent with macroeconomic conditions, showing a sharp decline during the pandemic period followed by gradual recovery in the post-pandemic era.

Stationarity Test (ADF Test)

Prior to regression analysis, a stationarity test was conducted using the Augmented Dickey-Fuller (ADF) test to ensure the validity of time-series estimation and to avoid spurious regression problems.

The ADF test results indicate that all variables—interest rates, exchange rates, inflation, and IHSG—are non-stationary at the level form, as indicated by probability values above the 5 percent significance level. This implies that the variables contain a unit root and cannot be directly used in regression analysis.

To address this issue, a first-difference transformation was applied to all variables. After transformation, all variables became stationary at the 5 percent significance level. This confirms that all variables are integrated of order one, $I(1)$.

These results confirm that the dataset is suitable for further regression analysis using transformed stationary data, ensuring that the estimated relationships are not spurious.

Regression Results

Model 1: Determinants of Inflation

The first regression model examines the effect of interest rates and exchange rates on inflation. The estimation results show that the interest rate has a positive coefficient of 0.294485 with a probability value of 0.0035, indicating statistical significance at the 5 percent level.

This finding suggests that changes in the interest rate are significantly associated with movements in inflation during the study period. The positive relationship reflects the monetary policy response

mechanism, where interest rate adjustments are closely linked to inflationary pressures in the economy.

In contrast, the exchange rate exhibits a positive coefficient of 0.017711 with a probability value of 0.6784, indicating that it is statistically insignificant. This implies that exchange rate fluctuations do not have a direct impact on inflation in Indonesia during the observed period. However, the joint significance test (F -statistic probability = 0.013491) indicates that interest rates and exchange rates collectively have a significant effect on inflation. This suggests that while individual effects may vary, the overall model is statistically meaningful.

Model 2: Determinants of IHSG

The second regression model analyzes the effect of inflation, interest rates, and exchange rates on IHSG. The results show that inflation has a negative coefficient of -0.264931 with a probability value of 0.3105, indicating that the effect is statistically insignificant.

This implies that inflation does not directly influence stock market performance during the study period. This may be explained by market efficiency, where inflation expectations are already incorporated into stock prices.

Interest rates also show a negative coefficient of -0.257199 with a probability value of 0.3487, indicating an insignificant relationship with IHSG. Although theoretically higher interest rates reduce stock market attractiveness, the empirical results suggest that this effect is not statistically strong in the Indonesian market during the study period.

In contrast, the exchange rate shows a negative and statistically significant coefficient of -0.909895 with a probability value of 0.0000. This

indicates that exchange rate depreciation has a strong negative effect on IHSG.

This result can be explained through capital outflow mechanisms, where currency depreciation increases economic uncertainty and reduces investor confidence. Additionally, firms relying on imported inputs experience higher production costs, which negatively affects profitability and stock valuations.

The F-statistic probability value of 0.000000 indicates that all independent variables jointly have a significant effect on IHSG. Meanwhile, the R-squared value of 0.389729 suggests that approximately 38.97 percent of IHSG variation is explained by the model, while the remaining variation is influenced by other external factors such as global market conditions, fiscal policy, and investor sentiment.

Mediation Analysis

The mediation analysis indicates that inflation does not function as a mediating variable in the relationship between interest rates, exchange rates, and IHSG.

Although interest rates have a significant effect on inflation, inflation itself does not significantly affect IHSG. Therefore, the necessary condition for mediation is not satisfied. As a result, the indirect effect through inflation cannot be established statistically. Consequently, the relationship between macroeconomic variables and IHSG is better explained through direct effects rather than indirect transmission via inflation, particularly through the exchange rate channel.

CONCLUSION

This study concludes that interest rates have a positive and significant effect on inflation, while exchange rates do not significantly affect inflation. Inflation and interest rates do not

significantly affect IHSG, whereas exchange rates have a negative and significant effect on IHSG.

Inflation is not proven to mediate the relationship between interest rates and exchange rates on IHSG. The findings indicate that exchange rate stability is the most important macroeconomic factor influencing stock market performance in Indonesia during the period 2016–2024.

REFERENCES

- Ali, R., & Rehman, R. U. (2021). Inflation uncertainty and stock market volatility. *Research in International Business and Finance*, 58, 101464.
- Arifin, S. (2020). *Tinjauan hukum terhadap praktik jual beli saham melalui aplikasi Henan Putihrai Exchange Syariah milik Perseroan Terbatas Henan Putihrai Sekuritas* (Skripsi, IAIN Purwokerto). IAIN Purwokerto.
- Arjoon, R., Botes, M., Chesang, L. K., & Gupta, R. (2012). The long-run relationship between inflation and real stock prices: Empirical evidence from South Africa. *Journal of Business Economics and Management*, 13(5), 912– 927.
- Badan Pusat Statistik. (2016–2024). *Statistik Indonesia*. BPS.
- Bank Indonesia. (2016–2024). *Statistik Ekonomi dan Keuangan Indonesia (SEKI)*. BI.
- Bernanke, B. S., & Gertler, M. (1995). Inside the black box: The credit channel of monetary policy transmission. *Journal of Economic Perspectives*, 9(4), 27– 48.
- Blanchard, O. (2017). *Macroeconomics* (7th ed.). Pearson Education.
- Bodie, Z., Kane, A., & Marcus, A. J. (2018). *Investments* (11th ed.). McGraw-Hill Education.

- Bursa Efek Indonesia. (2016–2024). *Laporan Indeks Harga Saham Gabungan*. IDX.
- Campa, J. M., & Goldberg, L. S. (2005). Exchange rate pass-through into import prices. *Review of Economics and Statistics*, 87(4), 679–690.
- Daffa, M. Z. (2023). *Pengaruh inflasi, tingkat suku bunga, dan nilai tukar terhadap Indeks Harga Saham Gabungan (IHSG) di Bursa Efek Indonesia*. Tesis, Program Studi Magister Manajemen, Universitas Muhammadiyah Palembang.
- Eduardus Tandelilin, (2017). *Pasar Modal “Manajemen Portofolio dan Investasi”* (G. Sudibyo (ed.)). Yogyakarta: PT. Kanisius.
- Fadilah, E., & Azizi, A. (2025). The effect of inflation and exchange rate on the Jakarta Composite Index (JCI) at the Indonesia Stock Exchange (IDX). *Green Inflation: International Journal of Management and Strategic Business Leadership*, 2(3), 57–67.
- Friedman, M. (1968). The role of monetary policy. *American Economic Review*, 58(1), 1–17.
- Gujarati, D. N., & Porter, D. C. (2020). *Basic econometrics* (5th ed.). McGraw-Hill.
- Ha, J., Stocker, M. M., & Yilmazkuday, H. (2019). *Inflation and Exchange Rate Pass-Through*. World Bank Policy Research Working Paper No. 8780.
- Hay, J., Stocker, M. M., & Yilmazkuday, H. (2020). *Inflation and Exchange Rate Pass- Through*. Working Paper.
- 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.
- International Monetary Fund. (2023). *World economic outlook: Inflation dynamics and policy responses*. IMF Publications.
- Isnowati, S., et al. (2020). *Exchange Rate Pass-Through Viewed from Wholesale Price in Indonesia*. RePEc Working Paper.
- James, N., & Chin, K. (2021). *On the systemic nature of global inflation, its association with equity markets and financial portfolio implications*.
- Mankiw, N. G. (2019). *Macroeconomics* (10th ed.). Worth Publishers.
- Kapoor, S., & Ravi, B. (2023). *Monetary transmission mechanism and inflation dynamics in emerging markets*. *Economic Modelling*, 120, 106152.
- Mirosea, N., Kusnan, I. A.-T., & Labangu, Y. L. (tahun). *Evaluation of insurance companies’ stock price during pandemic era in Indonesia: Does earning per share matter?* Department of Accounting, Faculty of Economics and Business, Universitas Halu Oleo.
- Mishkin, F. S. (2019). *The economics of money, banking, and financial markets* (10th ed.). Pearson Education.
- Musliha, C. (2023). *Pengaruh nilai tukar dan tingkat suku bunga terhadap inflasi di Indonesia periode 2000–2022*. Magister Ilmu Ekonomi, Fakultas Ekonomika dan Bisnis, Universitas Diponegoro, Semarang, Indonesia.
- Nachrowi, N. D., & Usman, H. (2006). *Pendekatan populer dan praktis ekonometrika untuk analisis ekonomi dan keuangan*. UI Press.
- Nendriaty, N. (2025). *Pengaruh tingkat bunga deposito, struktur modal,*

- dan likuiditas terhadap risiko keuangan pada perusahaan investasi yang terdaftar di Bursa Efek Indonesia (Skripsi, Sekolah Tinggi Ilmu Ekonomi Enam-Enam Kendari)
- Nguyen, C. T. (2023). Macroeconomic uncertainty and equity market performance. *Finance Research Letters*, 52, 103476.
- Nugroho, M. H. Y., Prananingtyas, P., & Irawati, I. (2021). *Analisa yuridis kontrol internal perbankan untuk menekan tindak penyimpangan (fraud) dalam transaksi perbankan* (Undergraduate thesis, Universitas Diponegoro). Universitas Diponegoro.
- Permata Sari, Y., Akbar, U. U., Yeni, I., Setia Putra, H., & Puspa, D. R. (n.d.). *Analysis of exchange rate and inflation in Indonesia under floating exchange rate system*. Artha, Development Economics Study Program, Faculty of Economics, Padang State University.
- Ramadhani, Y. C. (2024). The impact of inflation, interest rates, exchange rates, and global indicators on stock market performance. *International Journal of Social Science and Economics*, 2024.
- Rassi, Y. W., Olivia, D., Humairoh, F., Sutomo, M. M., & Fauziah, N. S. (2023). *The impact of exchange rate fluctuations on the price stability of imported commodities in Indonesia*. *Formosa Journal of Applied Sciences*, 4(6).
- Saputra, D., Yudha, A. M., & Ulnisa, T. (2024). Pengaruh tingkat suku bunga, nilai tukar dan inflasi terhadap nilai perusahaan. *JAF: Journal of Accounting and Finance*, 8(1), 54–71.
- Setyawan, A. B., Wasiaturrahma, W., & Anwar, A. I. (2023). *Effectiveness of monetary transmission through interest rate and exchange rate channels on Indonesia's inflation rate*. *Jurnal Ilmu Ekonomi Terapan*, 8(2), 236–259.
- Sihotang, C. A., Efendi, B., & Rangkuty, D. M. (2024). *Analysis of the influence of money supply, interest rates, and exchange rates on inflation in Indonesia*. Universitas Pembangunan Panca Budi.
- Suhendra, A., Kumenaung, M. P., & Maramis, F. M. (2025). *Pengaruh suku bunga Bank Indonesia, jumlah uang beredar, dan tingkat kurs terhadap inflasi di Indonesia periode 2010–2024*. *Jurnal Ilmiah Akuntansi dan Ekonomi*, 15(2), 134–147.
- Sujarweni, V. W. (2021). *Ekonometrika: Teori dan aplikasi dengan SPSS*. Pustaka Baru Press.
- Sukendri, N., & Andriyansah. (2025). *Mengenal ragam metode riset*. Lombok Tengah: Gapura Biru.
- Widarjono, A. (2023). *The asymmetric exchange rate pass-through to inflation in Indonesia, Malaysia, and the Philippines*. *Bulletin of Monetary, Economics and Banking*.
- Wooldridge, J. M. (2019). *Introductory econometrics: A modern approach* (7th ed.). Cengage Learning.
- Yandes, J. (2024). Fluktuasi nilai IHSG: Dampak kondisi inflasi tahun 2023 di Indonesia. *Jurnal Metansi*, 2024.
- Yunanto, M., & Medywati, H. (2021). The impact of exchange rate, Bank Indonesia certificate and global indexes on the composite price index (IHSG) in Indonesia. *Journal of Asian Finance, Economics and Business*, 8(6), 651–660