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Macroeconomic Determinants of the Jakarta Composite Index: An Arbitrage Pricing Theory Approach

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Abstract

This study analyzes the empirical effects of the exchange rate, inflation, and interest rate (BI Rate) on the Jakarta Composite Index (JCI) from January 2021 to December 2025. Utilizing 60 monthly observations evaluated via multiple linear regression with Log-Log and Log-Lin specifications, the model applies the Newey-West HAC procedure to resolve heteroskedasticity and autocorrelation violations. The simultaneous test confirms that these macroeconomic variables jointly influence the JCI, supporting the Arbitrage Pricing Theory (APT) framework. However, the partial test reveals a significant counter-theoretical anomaly: Rupiah depreciation exerts a positive effect on the JCI. This confirms a localized "cushioning effect" driven by an exporter windfall mechanism, where global commodity shocks expand the dollarized profit margins of heavy-weight energy and mining stocks dominating the JCI's market capitalization. Conversely, inflation and interest rates yield no significant partial impact, indicating that well-anchored consumer price expectations and Bank Indonesia's hawkish tightening cycle were fully anticipated and priced-in by forward-looking market participants.

Keywords: *Jakarta Composite Index (JCI), Exchange Rate Depreciation, Inflation, BI Rate, Arbitrage Pricing Theory (APT), Cushioning Effect, Commodity Windfall, Emerging Markets..*

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1. Introduction

The capital market plays a vital role in a nation's economy, serving both as a mechanism for corporations to secure additional capital and as an avenue for public investment. In Indonesia, the primary benchmark used to gauge market activity and sentiment is the Jakarta Composite Index (JCI/ Indeks Harga Saham Gabungan). Fluctuations in the JCI are heavily driven by both domestic and global macroeconomic conditions (Fauzi & Wijoyo, 2025).

The theoretical foundation of asset valuation under macroeconomic stress is primarily based on the Arbitrage Pricing Theory (APT) introduced by (Ross, 1976) and extended by (Reisman, 1988), which posits that asset returns are simultaneously driven by multiple systematic risk factors. Aligned with this perspective, Spence's Job Market Signaling Theory suggests that changes or announcements regarding macroeconomic indicators function as informational signals (good news or bad news) that shape market psychology and guide investor decision-making (Spence, 1973).

Furthermore, based on the Stock Evaluation Theory, the intrinsic value of a stock is determined by projected future cash flows discounted at a specific interest rate (Sloane & Reisman, 1968). Under this linear financial logic, macroeconomic shocks such as rising inflation and contractionary interest rates adversely impact the stock market. The Liquidity Preference Theory suggests that higher interest rates increase the cost of capital for issuers while simultaneously encouraging investors to reallocate funds toward safer money market instruments (Modigliani, 1944). On the exchange rate front, the Flow-Oriented Model posits that a depreciation of the domestic currency inflates the operational expenses of firms reliant on imported raw materials, thereby diminishing corporate profitability and triggering a decline in the aggregate stock index(Dornbusch & Fischer, 1980).

However, empirical realities in emerging markets frequently challenge these conventional, linear macroeconomic transmission models. Traditional theories are predominantly constructed based on the structural characteristics of developed economies, which possess highly diversified or import-reliant industrial bases. In contrast, resource-rich emerging economies exhibit a structural asymmetry. When a domestic currency depreciates or global inflation surges, it often coincides with a global commodity boom. This creates a localized "cushioning effect" a phenomenon where the negative shocks of currency depreciation and monetary tightening are neutralized, or even reversed, by the massive windfall profits accrued by export-oriented commodity sectors that command a dominant share of the domestic market capitalization.

Recent post pandemic literature has empirically verified this phenomenon. The return and volatility connectedness between global commodity shocks and emerging stock markets intensifies significantly during global crises, reshaping traditional macroeconomic transmission channels (Umar et al., 2021). Furthermore, systemic spillovers from commodity shocks serve as critical systematic risk factors within the APT framework that heavily influence aggregate equity valuations in emerging economies, explaining why these markets exhibit distinct behavioral anomalies compared to developed economies (Mensi et al., 2021) This counter-theoretical reality establishes the primary empirical phenomenon gap for this study, as observed in Indonesia from January 2021 to December 2025.

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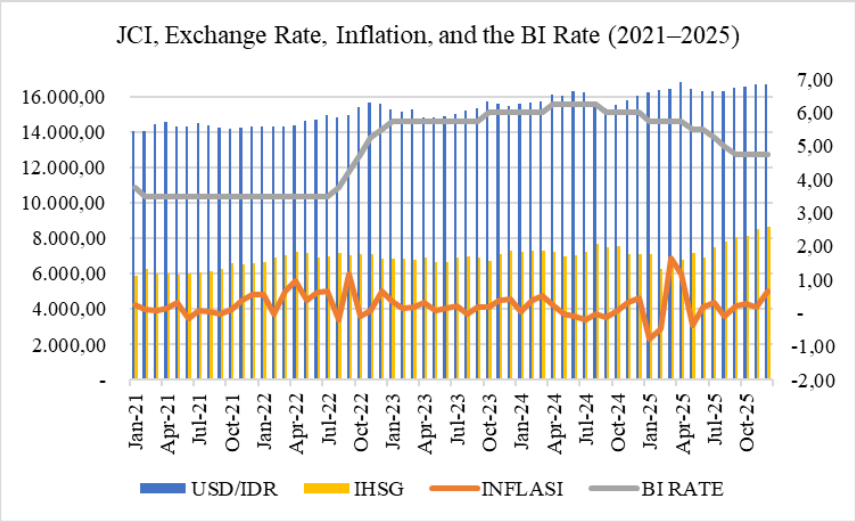

Figure 1. Trends of the JCI, Exchange Rate, Inflation, and the BI Rate (2021–2025)

As illustrated in Figure 1, a clear divergence exists between classic economic theory and capital market realities in Indonesia. For instance, from mid-2022 through the end of 2023, Bank Indonesia aggressively raised its benchmark interest rate from 3.50% to 6.00% to mitigate the impact of global inflation. Financial theory dictates that such rate hikes should cause the JCI to plummet as capital migrates to lower-risk instruments like time deposits. However, the data reveals that the index remained highly resilient, maintaining an upward trajectory through the end of 2025 and ultimately breaking through the 8,646.94-point threshold. A similar anomaly occurred with the Rupiah exchange rate. Throughout 2023 to 2025, the Rupiah depreciated sharply against the US Dollar, briefly touching the IDR 16,700 level. Theoretically, this currency erosion should have compressed corporate profit margins across the exchange. Yet, the JCI demonstrated strong growth, heavily bolstered by the windfall profits generated by commodity and energy exporters who benefited from a weaker currency.

Beyond this empirical anomaly, this study is further necessitated by a persistent conflict in the empirical literature (research gap). Previous studies have yielded highly fragmented and contradictory results, largely because they treat emerging stock indices as monolithic entities without accounting for the structural and sectoral dynamics that modulate macroeconomic risks. Regarding the inflation variable, a significant positive effect on the JCI has been reported in several studies (Hijrianti et al., 2024) (Yulianto & Nurmalasari, 2026) (Purnamasari et al., 2025), whereas other studies conclude that inflation negatively affects index movements (RPO et al., 2013) (Harsono, 2018). For the interest rate variable, some studies report a significant negative relationship with the JCI (Triwardana et al., 2025) (Wardana & Masdjojo, 2024), while others identify a positive effect (Fauzi & Wijoyo, 2025) or no statistically significant influence (Iman et al., 2025) (Setyawati & Suroso, 2022). Finally, regarding the exchange rate variable, previous studies report a significant negative effect (Fauzi & Wijoyo, 2025) (Simatupang et al., 2023), a positive relationship (Rante & Wakarmamu, 2024), or no statistically significant impact on the JCI (Yulianto & Nurmalasari, 2026).

By transitioning the academic debate from a simple comparison of mixed results to a deeper structural analysis, this study aims to re-examine these macroeconomic

relationships through the lens of the Arbitrage Pricing Theory (APT), explicitly integrating the context of the commodity-driven cushioning effect. The findings of this research are expected to bridge the gap between classical valuation theories and emerging market anomalies, serving as a vital reference for investors formulating risk-managed portfolios and for policymakers seeking to maintain the future stability of the Indonesian capital market.

2. Literature Review

The theoretical foundation of this study is grounded in Asset Pricing and Signaling theories. According to the Arbitrage Pricing Theory (APT), the returns and price dynamics of capital market assets are simultaneously driven by a multifaceted set of external systemic risk factors (Ross, 1976) (Reisman, 1988). However, the classical formulation of APT often assumes a linear and symmetric transmission mechanism of systematic risks. In resource-rich emerging economies, this structural assumption undergoes a critical shift. Systemic spillovers from global commodity channels alter how domestic equity markets price systematic risk factors, modifying the sensitivity of domestic assets to external macro-shocks rather than adhering to traditional linear models (Mensi et al., 2021).

Complementing this macro-valuation perspective, Signaling Theory suggests that macroeconomic shifts or policy announcements function as information signals (categorized as good news or bad news) (Spence, 1973). These signals shape market sentiment and dictate investor equity transactions on the exchange. Consequently, macroeconomic disclosures regarding inflation, interest rates, and exchange rates are interpreted by market participants as critical indicators that systematically steer aggregate equity valuations.

Furthermore, Stock Evaluation Theory establishes that the intrinsic or fair value of an equity asset at time zero (P_0) is a function of all projected future cash inflows discounted at the investor's required rate of return (k) (Sloane & Reisman, 1968). Within this valuation paradigm, macroeconomic variables act as pivotal determinants of both corporate cash flow trajectories and the prevailing market discount rate. To better align with this theoretical framework, this study employs the natural logarithm of the aggregate closing price (ln JCI) as the dependent variable. Unlike short-term asset returns commonly used in empirical APT studies, this measure captures changes in aggregate market valuation, making it more suitable for capturing the cumulative economic impact of a commodity-driven cushioning effect.

From a theoretical standpoint, high inflation indicates a broad-based rise in the prices of goods and services, which can induce cost-push inflation. This upward pressure on input costs compresses corporate profit margins and ultimately exerts downward pressure on the JCI. Conversely, if inflation remains low or at a creeping level (below 10%), market participants tend to interpret it positively as a reflection of demand-pull inflation, which signals robust economic expansion. Empirical literature on inflation impacts can be structurally categorized into two opposing transmission channels: the expansionary/demand-pull channel and the contractionary/cost-push channel. Empirically, several studies report that inflation exerts a significant positive effect on the JCI via the demand-pull expansionary channel (Hijrianti et al., 2024) (Yulianto &

Nurmalasari, 2026) (Purnamasari et al., 2025). However, other studies conclude that inflation negatively affects index movements due to cost-push margin compression (RPO et al., 2013) (Harsono, 2018).

Regarding monetary indicators, the Liquidity Preference Theory posits that interest rates reflect the opportunity cost of holding cash (Modigliani, 1944) (Millikan, 1938). When Bank Indonesia raises its benchmark interest rate (the BI Rate), borrowing costs for public companies increase, thereby reducing corporate profitability. Simultaneously, higher interest rates encourage investors to reallocate capital from the high-risk equity market to lower-risk money market instruments, such as time deposits, which offer more predictable returns. This capital reallocation reduces demand for equities and exerts downward pressure on the JCI. However, this relationship may weaken when monetary tightening is anticipated by the market. If a central bank's policy is perceived as credible and proactive, its effects may already be incorporated into asset prices, rendering the policy shock statistically insignificant for large-cap equities. Empirical evidence reflects these competing mechanisms. Several studies document a significant negative relationship between interest rates and the JCI (Triwardana et al., 2025) (Wardana & Masdjojo, 2024), whereas others find no statistically significant effect due to market anticipation and priced-in expectations (Setyawati & Suroso, 2022).

The transmission mechanism of exchange rate fluctuations to the stock market can be explained by the Flow-Oriented Model (Dornbusch & Fischer, 1980). This model highlights that exchange rate dynamics alter a nation's international competitiveness and current account balance. For companies listed on the Indonesia Stock Exchange (IDX), many of which possess production structures heavily dependent on imported raw materials, a depreciation of the Rupiah against the US Dollar inflates operating expenses and increases the burden of foreign currency-denominated debt. The resulting decline in net corporate earnings triggers a negative reaction from investors, prompting equity sell-offs that drag down the JCI (Simatupang et al., 2023) (Ramadhani et al., 2024).

However, the classic Flow-Oriented Model operates under the assumption of an import-reliant industrial structure. In resource-rich emerging markets, the exchange rate transmission mechanism exhibits a stark structural dichotomy. The dynamic relationship between stock prices and exchange rates is strongly influenced by financial integration and the export structure of the real economy (Phylaktis & Ravazzolo, 2005). Moreover, the interaction between exchange rates and stock returns is closely linked to global commodity cycles, implying that currency movements in resource-dependent economies are inherently shaped by external energy and commodity price shocks (Basher et al., 2012). In a resource-exporting regime, local currency depreciation works inversely; it enhances international price competitiveness and multiplies corporate net revenue when export outputs are priced in US Dollars while operational inputs remain denominated in the local currency. Consistent with this alternative transmission mechanism, some studies report that exchange rate depreciation positively affects the aggregate stock index through an export-windfall effect (Rante & Wakarmamu, 2024), whereas others find no statistically significant relationship (Yulianto & Nurmalasari, 2026).

Synthesizing the aforementioned theoretical paradigms and empirical literature, the conceptual model for this research is structured below.

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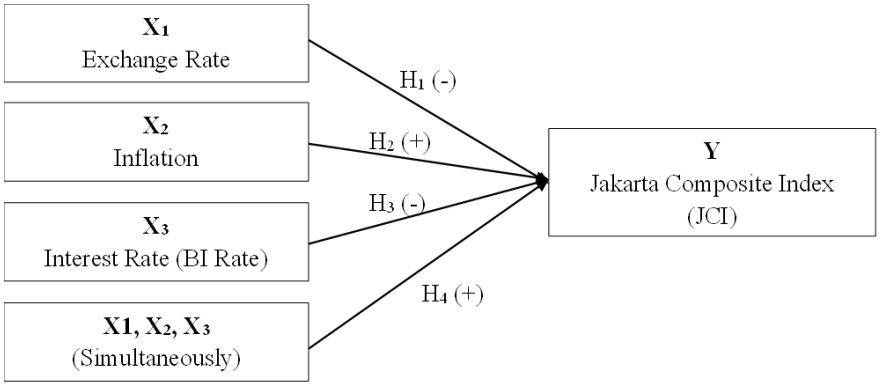

Figure 2. Research Conceptual

Based on the proposed research model, the hypotheses formulated in this study are as follows:

a. H_1 **:** The exchange rate has a significant negative effect on the Jakarta Composite Index (JCI).
b. H_2 **:** Inflation has a significant positive effect on the Jakarta Composite Index (JCI).
c. H_3 **:** The interest rate has a significant negative effect on the Jakarta Composite Index (JCI).
d. H_4 **:** The exchange rate, inflation, and interest rate simultaneously exert a significant effect on the Jakarta Composite Index (JCI).

3. Research Methods

Data and Research Sample

This study employs a quantitative approach utilizing monthly secondary time-series data. The observation window spans from January 2021 to December 2025, yielding a total sample size of 60 observations ($n = 60$). Data were obtained from the official publications of the respective relevant authorities: monthly closing prices for the Jakarta Composite Index (JCI) from the Indonesia Stock Exchange (IDX); the Rupiah/USD middle exchange rate and the benchmark interest rate (BI Rate) from Bank Indonesia (BI); and the monthly inflation rate from Statistics Indonesia (BPS).

Operational Definition of Variables

To ensure clarity and prevent misinterpretation, the operational definitions and measurement scales for each variable are specified as follows:

a. Jakarta Composite Index (Y): Represented by the monthly closing prices of shares listed on the IDX. In the regression framework, this variable is transformed into its natural logarithm (Ln Y).
b. Exchange Rate (X_1): This variable represents the mid-exchange rate of the Indonesian Rupiah (IDR) against the United States Dollar (USD), based on the Jakarta Interbank Spot Dollar Rate (JISDOR) published by Bank Indonesia. The exchange rate data are obtained on a daily frequency and subsequently averaged on a monthly basis to align the data frequency with other variables in the study. In the regression model, this variable is transformed using the natural logarithm (Ln

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Exchange Rate) to standardize the scale of measurement and mitigate potential heteroskedasticity issues.

c. Inflation (X_2): Measured by the monthly changes in the Consumer Price Index (CPI) published by BPS, expressed as a percentage (%). This data is entered linearly into the model without transformation.
d. Interest Rate (X_3): Represented by Bank Indonesia's monthly benchmark monetary policy rate (BI Rate), expressed as a percentage (%). This data is entered linearly into the model without transformation.

Data Analysis Method

The data analysis in this study was conducted using EViews. The analytical model employed is multiple linear regression with a mixed model specification, consisting of a log-log form for the exchange rate variable and a log-linear form for the inflation and interest rate variables. The regression equation is formulated as follows:

$$Ln(Y)_t = \beta_0 + \beta_1 Ln(X_1)_t + \beta_2 (X_2)_t + \beta_3 (X_3)_t + \varepsilon_t$$

Where:

a. $Ln(Y)_t$ = Natural logarithm of the JCI in month-t
b. β_0 = Constant term (intercept)
c. $\beta_1, \beta_2, \beta_3$ = Regression coefficients of the respective independent variables
d. $Ln(X_1)_t$ = Natural logarithm of the IDR/USD exchange rate in month-t
e. $(X_2)_t$ = Inflation rate in month -t
f. $(X_3)_t$ = BI Rate in month-t
g. ε_t = Stochastic error term (residual) in month-t

Classical Assumption and Robustness Test

Prior to interpreting the regression coefficients for hypothesis testing, the model must satisfy standard econometric diagnostic criteria via classical assumption tests, which comprise:

a. Normality Test: Conducted using the Jarque-Bera test to ensure that the model's residuals are normally distributed (criterion: p-Value. $> 0{,}05$).
b. Multicollinearity Test: Evaluated using the Variance Inflation Factor (VIF) to ensure the absence of perfect linear dependencies among the independent variables (criterion: VIF < 10).
c. Heteroskedasticity Test: Evaluated using the Breusch-Pagan-Godfrey test to verify that the variance of the residuals remains homoskedastic (constant).
d. Autocorrelation Test: Evaluated using both the Durbin-Watson (DW) statistic and the Breusch-Godfrey Serial Correlation LM test to detect potential serial dependencies among the error terms across time.

If diagnostic testing reveals violations of the classical assumptions specifically through symptoms of heteroskedasticity or serial correlation the standard Ordinary Least Squares (OLS) estimator ceases to be the Best Linear Unbiased Estimator (BLUE). As a robustness check and remedial measure, this study applies the Newey-West

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Heteroskedasticity and Autocorrelation Consistent (HAC) Standard Errors procedure. This method corrects the standard errors of the regression parameters without altering the coefficient estimates themselves, ensuring that both partial and simultaneous significance tests remain valid and robust against heteroskedastic and serially correlated errors (Newey & West, 1986).

Hypothesis Testing

Hypothesis testing is executed after the regression model successfully satisfies the classical assumptions or has been adjusted via the robust HAC procedure. The evaluation follows a three-stage testing process:

a. Partial Significance Test (t-test): Used to determine whether each individual independent variable (X_i) exerts a statistically significant effect on the dependent variable (Y). The null hypothesis is rejected if the empirical p-value of the t-statistic is less than 0.05 ($\alpha = 5\%$).
b. Simultaneous Significance Test (F-test): Used to assess whether all independent variables jointly exert a statistically significant effect on the dependent variable. The null hypothesis is rejected if the p-value of the F-statistic is less than 0.05.
c. Coefficient of Determination (R^2): The Adjusted R-squared value is utilized to measure the proportion of variance in the JCI that can be explained by the joint variations of the exchange rate, inflation, and interest rate variables.

4. Results

Descriptive Statistics

Before conducting the formal inferential regression and diagnostic analyses, a descriptive statistical analysis was performed to evaluate the fundamental characteristics, central tendencies, and dispersion levels of both the dependent and independent variables

Table 1. Descriptive Analysis Results

Statistics	Y (*Ln* JCI)	X_1 (*Ln* Exchange Rate)	X_2 (Inflation)	X_3 (Interest Rate)
Mean	8.8523	9.6105	3.4982	4.8875
Median	8.8475	9.6083	2.9150	5.5000
Maximum	9.0650	9.7233	5.9500	6.2500
Minimum	8.6739	9.5512	1.3200	3.5000
Std. Dev.	0.0886	0.0469	1.4881	1.0506
Observations	60	60	60	60

Source: E-Views data analysis output

Based on the descriptive statistics presented in Table 1, the trajectories of both the dependent and independent variables exhibit highly dynamic fluctuations across the post-

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pandemic economic recovery phase leading up to the end of 2025. The natural logarithm of the Jakarta Composite Index (ln X_1), serving as the dependent variable, yields a mean value of 8.8523, with the log-transformed index fluctuating between a minimum of 8.6739 and a maximum of 9.0650.

Regarding the macroeconomic indicators, the inflation rate remained within a moderate window, recording a minimum of 1.32% and peaking at 5.95%. Concurrently, the interest rate variable (BI Rate) captures the historical trajectory of aggressive monetary policy tightening enacted by Bank Indonesia, characterized by a baseline rate shifting from a minimum level of 3.50% to a cyclical peak of 6.25%.

Classical Assumption Tests

Prior to hypothesis testing, the monthly time-series data were subjected to a series of diagnostic tests to evaluate the adequacy and reliability of the estimated regression model. These tests focused on key econometric assumptions, including multicollinearity, heteroskedasticity, and autocorrelation, to ensure that the estimated parameters and statistical inferences remain valid. The initial diagnostic results indicate that the model is free from serious multicollinearity, as all Variance Inflation Factor (VIF) values remain below the conventional threshold of 10.

Table 2. Classical Assumption Test Results

Test	Indicator	Result	Decision
Normality	Jarque-Bera Prob.	0,247	Normally distributed
Multicollinearity	VIF (X1)	2.107	No multicollinearity
	VIF (X2)	1.025	No multicollinearity
	VIF (X3)	2.142	No multicollinearity
Heteroskedasticity	Breush-Pagan Prob.	0.0094	Heteroskedasticity detected
Autocorrelation	Durbin-Watson	0.426	Positive autocorrelation

Source: E-Views data analysis output

However, the Breusch-Pagan-Godfrey test reveals heteroskedasticity, while the Durbin-Watson statistic indicates positive autocorrelation. Therefore, the Newey-West HAC correction was applied to obtain robust standard errors and valid statistical inference.

Regression Parameter and Hypothesis Testing

Following the application of the Newey-West HAC correction procedure, hypothesis testing was conducted to evaluate both individual partial effects (t-test) and joint simultaneous effects (F-test). The consolidated empirical results and regression parameter estimates are detailed in Tables 3 and 4 below.

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Table 3. Regression Parameters and t-Test Results (HAC Corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.302308	2.986687	-0.770857	0.4437
Ln Exchange Rate (X_1)	1.161226	0.386001	3.008350	0.0039
Inflation (X_2)	0.009066	0.038031	0.238392	0.8123
Interest Rate (X_3)	-0.009345	0.012921	-0.723223	0.4705

Source: E-Views data analysis output

Based on the empirical results presented in Table 3, the estimated regression equation derived from this study is specified as follows:

$$Ln(Y)_t = -2.302 + 1.161\ Ln(X_1)_t + 0.009\ (X_2)_t - 0.009\ (X_3)_t + \varepsilon$$

Table 4. Model Fit Test and Coefficient of Determination (R^2)

Indicator	Value
R-squared	0.444005
Adjusted R-squared	0.414219
F-statistic	14.90676
Prob (F-statistic)	0.000000

Source: E-Views data analysis output

Discussion

Based on the empirical outputs presented in Tables 3 and 4, the analysis of the hypotheses and individual variable specifications is detailed below:

First, the empirical estimation indicates that the Exchange Rate has a positive coefficient of 1.161226 with a statistically significant p-value of 0.0039 ($p < 0.05$). Given that both the dependent and independent variables undergo a natural logarithmic (ln) transformation, this coefficient reflects a direct measure of elasticity: a 1% depreciation of the Indonesian Rupiah (IDR) against the USD is empirically associated with a 1.16% appreciation of the JCI. This finding leads to the rejection of Hypothesis 1 due to the counter-theoretical direction of the effect. This significant anomaly directly contradicts the classic Flow-Oriented Model, which dictates that domestic currency depreciation severely depresses capital markets through import-cost escalation and systemic capital flight. Instead, it confirms a distinct, resource-rich emerging market phenomenon: the "cushioning effect."

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To unpack the economic logic behind this statistical output, the analysis must move beyond macroeconomic aggregates and explicitly explore the structural market capitalization of the Indonesia Stock Exchange (IDX). The aggregate movements of the JCI are not structurally uniform; rather, they are heavily dominated and driven by large-cap emiten clustered within the energy (IDXENERGY), basic materials (mining, nikal, coal), and agricultural (crude palm oil/CPO) sectors. During the 2021–2025 observation window, global supply chains suffered severe post-pandemic structural disruptions compounded by intense geopolitical conflicts, driving global energy and commodity prices to historic peaks.

Uniquely, when the Rupiah depreciated sharply against the US Dollar, it activated an asymmetrical operational transmission channel known as the Exporter Economic Windfall Mechanism. These export-oriented commodity corporations operate under a highly lucrative currency mismatch: their corporate revenues are entirely dollarized (USD-denominated global market benchmark prices), whereas their operational cost structures ranging from local labor, domestic logistics, to mining concession fees remain fixed and heavily denominated in the local currency (IDR). As the Rupiah weakened, this currency gap generated massive windfall profits, causing an exponential expansion in net corporate margins and free cash flows. Because these heavy-weight resource and mining stocks command a dominant, disproportionate share of the JCI's total market capitalization, their massive individual price surges functioned as an aggregate economic cushion. This sectoral upward momentum completely overwhelmed and neutralized the compressed profit margins felt by smaller, import-dependent manufacturing sectors, effectively dragging the aggregate index into positive territory.

This structural transmission architecture is robustly validated by contemporary emerging market literature. Systemic spillovers from global commodity channels have been shown to significantly influence asset pricing behavior under the APT framework (Mensi et al., 2021), while stock returns in emerging markets remain dynamically connected to global commodity and exchange rate cycles (Basher et al., 2012). Furthermore, stock indices in resource-exporting market regimes have been found to exhibit greater resilience during macroeconomic shocks because energy and resource sectors constitute a substantial proportion of total market capitalization (Arouri et al., 2011).

Second, the Inflation variable yields a regression coefficient of 0.009066 with an insignificant p-value of 0.8123 ($p > 0.05$). Although the directional relationship is positive suggesting a demand-pull inflation environment indicative of post-pandemic macroeconomic recovery this effect yields no statistical meaning, resulting in the rejection of Hypothesis 2.

To understand why consumer price fluctuations failed to systematically alter equity prices, the analysis must evaluate the structural nature of inflation in Indonesia during the 2021–2025 window. Under Signaling Theory, inflation only acts as a destructive "bad news" signal when it mutates into unanchored, runaway cost-push inflation that erodes corporate cash flows. However, during this period, Bank Indonesia successfully managed the Anchored Inflation Expectations Channel. Despite global supply-side pressures, domestic core inflation remained tightly bound within the central bank's target corridor. Market participants recognized that the minor inflationary blips were reflections of healthy demand-pull economic expansion rather than systemic

macroeconomic instability. Because purchasing power remained resilient and inflation was predictable, institutional investors did not alter their long-term equity allocation strategies, rendering monthly consumer price indices statistically decoupled from aggregate stock movements. This structural neutrality under anchored monetary expectations is supported by empirical evidence showing that emerging markets with credible inflation-targeting regimes effectively insulate their domestic financial assets from the high-volatility pricing shocks typically induced by inflationary episodes (Ha et al., 2022).

Third, the Interest Rate variable (BI Rate) exhibits a negative regression coefficient of -0.009345 with a p-value of 0.4705 ($p > 0.05$). While the negative direction resonates perfectly with Modigliani's (1944) Liquidity Preference Theory where contractionary monetary shifts increase borrowing costs the relationship is statistically insignificant, leading to the rejection of Hypothesis 3.

This lack of statistical significance provides valuable insight into market efficiency and central bank credibility in Indonesia. Viewed through the Anticipated Monetary Policy Channel, a monetary tightening cycle is expected to trigger stock market declines only when it is unanticipated by market participants. Financial markets rapidly absorb and price in expected policy actions, leaving only unanticipated monetary policy surprises to generate significant asset price volatility (Kuttner, 2001). Throughout the 2021–2025 tightening phase, where the BI Rate climbed aggressively from 3.50% to a peak of 6.25%, Bank Indonesia maintained highly transparent, pre-emptive, and forward-looking policy communications. Consequently, forward-looking equity investors had already fully "priced-in" the rising cost of capital months before the actual rate hikes occurred. More importantly, the massive liquidity and cash flow expansions generated by the concurrent commodity windfall profits (as explained in the exchange rate mechanism) easily outpaced the marginal rise in corporate borrowing costs. Equity portfolios remained highly lucrative, ensuring that no panic capital flight occurred away from the IDX and into money market instruments, confirming the statistical neutrality of anticipated rate hikes.

Fourth, the joint analysis via the F-test reports an F-statistic of 14.906 with an absolute probability value of 0.0000 ($p < 0.01$). This provides robust empirical evidence that the Exchange Rate, Inflation, and Interest Rate simultaneously exert a highly significant joint effect on the JCI, thereby validating Hypothesis 4.

From an empirical asset pricing perspective, this highly significant simultaneous constraint confirms that macroeconomic risk factors do not operate in isolation within the Indonesian capital market. Instead, they function as an interconnected matrix of systematic risks, validating the fundamental premise of Ross's (1976) Arbitrage Pricing Theory (APT).

$$\text{Adjusted } R^2 = 0.414$$

Furthermore, the Adjusted R^2 value of 0.414 indicates that 41.4% of the total variance in the JCI over the 60-month sample period can be explained by the joint variations of these three macroeconomic covariates. In the context of macroeconomic time-series modeling for emerging markets, an explanatory power of 41.4% is considered robust and highly meaningful. This is consistent with the structural characteristics of emerging markets, where multi-factor asset pricing models typically produce only moderate R^2 values because aggregate equity prices are simultaneously driven by

systematic macroeconomic shocks and country-specific institutional dynamics (Bilson et al., 2001).

Consequently, the remaining 58.6% of the variance in the JCI is captured by the stochastic error term (ε_t), representing omitted variables outside the scope of this structural model. These external drivers likely include direct global commodity price indices (such as global coal and CPO benchmarks), foreign portfolio capital flows (net foreign buy/sell), and corporate earnings momentum. Rather than weakening the study, acknowledging this unexplained variance explicitly addresses the inherent boundaries of aggregate macro-modeling. It highlights that while the exchange rate-driven cushioning effect, anchored inflation, and priced-in interest rates establish a powerful 41.4% baseline for long-run JCI equilibrium, the domestic market remains dynamically open to broader global financial and commodity integrations.

5. Conclusion

This study concludes that the Rupiah exchange rate, inflation, and the benchmark interest rate (BI Rate) simultaneously exert a highly significant joint effect on the Jakarta Composite Index (JCI) for the January 2021 to December 2025 period, strongly supporting the structural validity of the Arbitrage Pricing Theory (APT) framework in emerging markets. However, on a partial basis, the macroeconomic transmission channels exhibit distinct structural anomalies that challenge classical financial paradigms.

Only the exchange rate demonstrates a statistically significant impact, displaying a counter-theoretical positive elasticity where currency depreciation drives aggregate index growth. This empirically confirms the existence of a "cushioning effect" within the domestic capital market. Rather than inducing capital flight, the depreciation of the Rupiah triggers an Exporter Economic Windfall Mechanism. Due to the heavy concentration of heavy-weight energy, mining, and agricultural sectors within the JCI's market capitalization, the expanded profit margins of dollarized exporters comfortably insulated and overwhelmed the operational pressures felt by import-dependent industries, dragging the aggregate index upward.

Conversely, both inflation and interest rates yield no statistically significant partial effect on the JCI. This structural neutrality indicates that well-anchored consumer price expectations and Bank Indonesia's aggressive monetary tightening cycle were highly transparent and effectively "priced-in" by forward-looking market participants long before execution, preventing systemic panic or capital flight from equity assets.

This study acknowledges certain boundaries within its empirical design. By utilizing a multi-factor linear regression focused on three core systematic covariates, the model accounts for a robust 41.4% of the total variance in long-run JCI movements. Consequently, the remaining 58.6% of market volatility is governed by omitted idiosyncratic and global factors outside the scope of this structural framework.

To build upon the limitations of this well-established model, future research should move beyond aggregate macroeconomic variables by incorporating more direct transmission measures. Specifically, future studies could integrate global commodity spot price indices (e.g., international coal and CPO benchmarks) as separate systematic risk factors or conduct sectoral analyses (e.g., IDXENERGY and IDXMANUFACTURE) to mathematically isolate the magnitude of the commodity windfall effect. Additionally,

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incorporating institutional foreign portfolio capital flows (net foreign buy/sell) could significantly expand the explanatory power (R^2) of asset pricing models in the Indonesian capital market.

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