



Global Market Pulse: Linking DJIA, FTSE, Nikkei, HSI, and BI Rate to Indonesia's Composite

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Abstract

This study investigates the impact of major global stock indices and domestic monetary policy on the Indonesian Composite Stock Price Index (IHSG) during the period 2020–2024. The independent variables include the Dow Jones Industrial Average (DJIA), Financial Times Stock Exchange (FTSE), Nikkei 225, Hang Seng Index (HSI), and the Bank Indonesia 7-Day Reverse Repo Rate (BI7DRR). Monthly percentage changes were analyzed using multiple linear regression to examine both partial and simultaneous effects. Prior to hypothesis testing, classical assumption tests were conducted, including normality, multicollinearity, heteroskedasticity, and autocorrelation tests, all of which indicated that the regression model was valid. The results of the F-test show that the independent variables jointly have a significant effect on IHSG. However, the t-test results reveal that only FTSE has a positive and statistically significant effect on IHSG, while DJIA, Nikkei, HSI, and BI7DRR do not show significant individual effects. These findings suggest that the Indonesian stock market is more responsive to movements in the European market than to those in the United States or other Asian markets during the observed period. Additionally, domestic monetary policy, as proxied by BI7DRR, does not exert a direct short-term influence on IHSG fluctuations. This study contributes to the literature on market integration and contagion effects by highlighting the varying degrees of global financial influence on emerging markets such as Indonesia.

Keywords: *IHSG; Global Stock Indices; FTSE; BI7DRR; Market Integration*

Introduction

Global financial markets have become increasingly interconnected, allowing shocks and movements in major stock markets to transmit rapidly across countries. This phenomenon, commonly referred to as market integration or contagion effect, has intensified due to globalization, technological advancements, and the growing mobility of international capital (Eichengreen et al., 1996). As a result, fluctuations in major global stock indices often influence the performance of stock markets in emerging economies, including Indonesia.

The Indonesian Composite Stock Price Index (IHSG) represents overall market performance in Indonesia and serves as an important indicator for investors, policymakers, and market participants. During the period 2020–2024, the IHSG experienced significant volatility driven by global uncertainty,

including the COVID-19 pandemic, monetary tightening in advanced economies, geopolitical tensions, and structural changes in major global markets. These conditions raise important questions regarding the extent to which global stock indices and domestic monetary policy affect the Indonesian stock market.

Previous studies have documented mixed results regarding the influence of global stock markets on IHSG. According to (Ichsani et al., 2019) find that the Dow Jones Industrial Average (DJIA) and major Asian indices significantly affect IHSG, while others report weak or insignificant relationships, particularly during periods of global crisis. Similarly, previous study on the impact of domestic interest rates, such as the Bank Indonesia 7-Day Reverse Repo Rate (BI7DRR), on stock market performance remains inconclusive. These inconsistencies suggest the presence of time-varying effects and the importance of reassessing global–domestic market linkages using recent data.

This study aims to examine the impact of selected global stock indices namely the Dow Jones Industrial Average (DJIA), Financial Times Stock Exchange (FTSE), Nikkei 225, and Hang Seng Index (HSI) as well as the BI7DRR on IHSG during the period 2020–2024. By employing multiple linear regression analysis on monthly percentage changes, this research evaluates both the partial and simultaneous effects of global and domestic factors on Indonesia's stock market performance. This study lies in providing updated empirical evidence on the degree of global market influence on IHSG in the post-pandemic period. Unlike prior studies that focus predominantly on the United States or Asian markets, this research highlights the role of the European market, represented by FTSE, in shaping IHSG movements.

Contagion Effect Theory

The contagion effect theory describes how shocks in one financial market can spread to other markets through investor sentiment, capital flows, and global market integration, regardless of differences in domestic fundamentals. Increased financial interconnectedness causes investors to respond collectively to global market movements, leading to higher correlations across stock markets, especially during periods of uncertainty (Forbes & Rigobon, 1999). The theory of contagion effect explains the influence of Dow Jones Industrial Average (DJIA), Financial Times Stock Exchange (FTSE), Nikkei 225, Hang Seng Index (HSI) and BI7DRR variables on IHSG.

Signal Theory

Signaling theory explains how information released by policymakers or institutions conveys signals that influence investor expectations and market behavior. In the context of monetary policy, changes in the policy interest rate serve as signals regarding future economic conditions, inflation expectations, and central bank credibility (Spence, 1973). This theory is used to explain the influence of BI7DRR variables on IHSG.

Indonesian Composite Index

The Indonesian Composite Index (IHSG) is the primary indicator of stock market performance in Indonesia, representing the aggregate movement of all listed stocks on the Indonesia Stock Exchange (IDX, 2021). As a broad market index, IHSG reflects overall economic conditions, investor sentiment, and capital market dynamics in Indonesia.

Dow Jones Industrial Average Index

The Dow Jones Industrial Average (DJIA) is one of the most prominent stock market indices in the world and serves as a key benchmark for the performance of the United States equity market. Comprising 30 large, blue-chip companies, the DJIA reflects overall economic conditions and investor sentiment in the United States (S&P Dow Jones Indices, 2025).

Financial Times Stock Exchange 100 Index

The Financial Times Stock Exchange 100 Index (FTSE 100) represents the performance of the 100 largest companies listed on the London Stock Exchange and serves as a major benchmark for the European equity market (FTSE Russell, 2025). The FTSE 100 reflects global economic conditions, particularly in sectors such as energy, banking, and commodities, which are closely linked to international trade and capital flows.

Nikkei 225 Index

The Nikkei 225 Index is the primary stock market index of Japan, consisting of 225 leading companies listed on the Tokyo Stock Exchange (Groette, 2025). As Japan is one of the largest economies in Asia and a major trading partner of Indonesia, movements in the Nikkei 225 are often considered an important indicator of regional economic conditions.

Hang Seng Index

The Hang Seng Index (HSI) measures the performance of major companies listed on the Hong Kong Stock Exchange and is widely regarded as a barometer of financial market conditions in Greater China (StashAway, 2025). Hong Kong plays a crucial role as a global financial hub and a gateway for investment into mainland China, which may transmit economic and financial shocks to other Asian markets.

BI 7-Day Reverse Repo Rate

The BI 7-Day Reverse Repo Rate (BI7DRR) is the main monetary policy instrument of Bank Indonesia and serves as the benchmark interest rate in the Indonesian economy. Changes in BI7DRR influence liquidity conditions, borrowing costs, and investment decisions in financial markets (Bank Indonesia, 2025).

The Effect of Dow Jones Industrial Average on IHSG

The Dow Jones Industrial Average (DJIA) represents the performance of the U.S. stock market and serves as a key indicator of global financial conditions. Due to strong global financial integration, movements in the DJIA can influence emerging markets such as Indonesia through investor sentiment and international capital flows (Eichengreen et al., 1996). The contagion effect theory suggests that shocks in major developed markets are transmitted to other markets, causing synchronized movements in stock indices.

H1: There is an effect of Dow Jones Industrial Average on IHSG.

The Effect of Financial Times Stock Exchange 100 Index on IHSG

The Financial Times Stock Exchange 100 Index (FTSE 100) reflects the performance of major companies listed in the United Kingdom and serves as an important indicator of European market conditions. Through global financial integration and international portfolio diversification, movements in the FTSE can influence stock markets in emerging economies, including Indonesia (Forbes & Rigobon, 1999). According to the contagion effect theory, shocks originating from developed markets may be transmitted to other markets via cross-border capital flows and changes in investor risk perception.

H2: There is an effect of Financial Times Stock Exchange 100 Index on IHSG.

The Effect of Nikkei 225 on IHSG

The Nikkei 225 represents the performance of leading companies listed on the Tokyo Stock Exchange and serves as a key benchmark for Asian financial markets. As Japan is one of Indonesia's

major trading partners and investors, movements in the Nikkei can influence IHSG through regional investor sentiment and trade-related transmission channels (Spence, 1973). Based on the contagion effect theory, positive performance in the Japanese stock market may strengthen investor confidence across Asia and stimulate capital inflows into emerging markets such as Indonesia.

H3: There is an influence of Nikkei 225 on IHSG.

The Effect of Hang Seng Index on IHSG

The Hang Seng Index (HSI) reflects the performance of major companies listed on the Hong Kong Stock Exchange and functions as a key indicator of financial conditions in Greater China. Through the contagion effect, movements in HSI may influence IHSG via regional investor sentiment and cross-border capital flows, particularly given Hong Kong's role as a financial gateway to mainland China (Eichengreen et al., 1996).

H4: There is a Hang Seng Index influence on IHSG.

The Effect of BI 7-Day Reverse Repo Rate on IHSG

The BI 7-Day Reverse Repo Rate (BI7DRR) is the primary monetary policy instrument used by Bank Indonesia to manage liquidity and control inflation. According to signaling theory, changes in the policy rate convey information about future economic conditions and influence investor expectations (Ross et al., 1977). An increase in BI7DRR generally raises borrowing costs and makes fixed-income instruments more attractive, potentially reducing demand for equities and exerting downward pressure on IHSG. Conversely, lower interest rates tend to stimulate investment in the stock market.

H5: BI 7-Day Reverse Repo Rate influences the IHSG.

Method

This study employs an associative research design with a quantitative approach and using secondary data consisting of monthly closing prices. The data are obtained from documented sources, including historical archives and official publications. A non-probability sampling technique with purposive sampling is applied to select the observation period and variables relevant to the research objectives. The independent variables consist of the Dow Jones Industrial Average (DJIA), FTSE 100, Nikkei 225, Hang Seng Index (HSI), and the Bank Indonesia 7-Day Reverse Repo Rate (BI7DRR), while the dependent variable is the Indonesia Composite Index (IHSG).

Results

The results of the multiple linear regression analysis indicate that the simultaneous hypothesis test (F-test) produces a significance value of 0.000, which is below the 0.05 significance level. This result confirms that Dow Jones Industrial Average (DJIA), FTSE 100, Nikkei 225, Hang Seng Index (HSI), and the Bank Indonesia 7-Day Reverse Repo Rate (BI7DRR) jointly have a significant effect on the Indonesia Composite Index (IHSG). Therefore, the regression model is considered statistically valid for explaining IHSG movements during the study period.

Test Results Statistics

Table 1. Test Results Statistics

Model	B	t	Sig.	Information
(Constant)	-0,03	-0,069	0,946	
DJIA	0,086	0,718	0,476	No effect
FTSE 100	0,413	2,726	0,009	Positive effect
NIKKEI 225	0,174	1,438	0,156	No effect
HANG SENG	0,016	0,226	0,822	No effect
BI7DRR	-0,067	-0,549	0,585	No effect
Ftest			0,000	Simultaneously effect
Adjusted R²			0,401	

Tabel 1. shows that the partial hypothesis testing (t-test) shows that only the FTSE 100 index has a positive and statistically significant effect on IHSG, as indicated by a significance value below 0.05 and a positive regression coefficient. This finding suggests that movements in the UK stock market play an important role in influencing the Indonesian stock market. Based on the results of linear regression analysis can be formulated linear regression equation as follows:

$$\text{Indonesia Composite Index} = -0,030 + 0,413 \text{ FTSE} + e.$$

In contrast, DJIA, Nikkei 225, Hang Seng Index, and BI7DRR do not have a statistically significant effect on IHSG, indicating that changes in these variables do not directly influence IHSG movements during the observed period.

Coefficient of Determination

The regression results indicate an R-square (R^2) value of 0.401, implying that 40.1% of the variation in the Indonesia Composite Index (IHSG) is explained by the independent variables, namely DJIA, FTSE, Nikkei, HSI, and BI7DRR. This finding suggests that the proposed model possesses a moderate explanatory power in capturing the influence of global stock indices and domestic monetary policy on IHSG movements during the 2020–2024 period. The remaining 59.9% is attributed to other factors outside the model, such as exchange rate fluctuations, inflation, commodity prices, fiscal policy, foreign capital flows, and other macroeconomic conditions.

Discussion

The influence of Dow Jones Industrial Average on Indonesian Composite Index

The empirical results indicate that the Dow Jones Industrial Average (DJIA) does not have a statistically significant effect on the Indonesia Composite Index (IHSG) during the 2020–2024 period, leading to the acceptance of the null hypothesis. Although the estimated coefficient is positive, suggesting that increases in DJIA tend to be followed by increases in IHSG, this relationship is not sufficiently strong to be statistically validated. This finding implies that while the Indonesian stock market remains connected to the U.S. market, the short-term transmission of shocks is relatively weak. In line with the contagion effect theory, global market linkages may diminish during certain periods due to the dominance of domestic and regional factors, such as political stability, local liquidity conditions, and country-specific investor sentiment (Eichengreen et al., 1996). This result is consistent with (Putri & Bebasari, 2023), who report that during periods of heightened global uncertainty, the influence of DJIA on IHSG is not always significant. The observed divergence between DJIA and IHSG movements in October 2020 further supports the notion that IHSG does not consistently move in tandem with the U.S. stock market.

Therefore, DJIA should not be considered a sole reference for investment decision-making in the Indonesian capital market.

The influence of Financial Times Stock Exchange 100 Index on Indonesian Composite Index

The results show that the Financial Times Stock Exchange (FTSE) index has a positive and statistically significant effect on IHSB over the study period, leading to the rejection of the null hypothesis. This finding indicates a strong linkage between the UK stock market and the Indonesian capital market. The positive relationship supports the contagion effect theory, whereby global financial market movements are transmitted to domestic markets through international capital flows, investor expectations, and global sentiment (Eichengreen et al., 1996). During 2020–2024, the FTSE exhibited close ties to commodity and energy sectors, which also play a dominant role in the Indonesian Stock Exchange (IDX). This result aligns with (Yunanto & Medyawati, 2021), who document a significant influence of FTSE on IHSB. The synchronous increase in FTSE and IHSB in August 2024 further confirms this relationship, suggesting that FTSE may serve as a leading indicator for IHSB movements. Consequently, monitoring developments in the European market, particularly in sectors closely related to commodities and energy, is essential for investors and market analysts in Indonesia.

The influence of Nikkei 225 Index on Indonesian Composite Index

The regression results reveal that the Nikkei 225 index does not have a significant effect on IHSB, although the coefficient sign is positive. This indicates that movements in the Japanese stock market do not directly translate into changes in the Indonesian stock market on a monthly basis. Despite Japan being one of Indonesia's major trading partners, the Nikkei index primarily reflects domestic economic conditions in Japan, exchange rate volatility, and internal monetary dynamics rather than capital flows to Indonesia. This finding is consistent with (Hartantio & Yusbardini, 2020), who also report an insignificant relationship between Nikkei and IHSB. The opposite movements observed in January 2024, when Nikkei increased while IHSB declined, further suggest that the relationship between the two markets is not immediate. Instead, the linkage may operate indirectly through long-term trade and real investment channels rather than short-term financial market transmission.

The influence of Hang Seng Index on Indonesian Composite Index

The results indicate that the Hang Seng Index (HSI) does not exert a significant influence on IHSB during the 2020–2024 period. Although Hong Kong is a major financial hub in Asia, structural challenges in its stock market—such as regulatory tightening in China, weakness in the property sector, and volatility in technology stocks—have limited the transmission of shocks to the Indonesian market (Forbes & Rigobon, 1999). This suggests that the Indonesian capital market is relatively insulated from short-term volatility originating from Hong Kong. The finding supports (Nuraeni & Panjawa, 2021), who document that HSI does not significantly affect stock markets in emerging economies like Indonesia. The contrasting movements of HSI and IHSB in January 2023 further reinforce the weak short-term linkage. Nevertheless, policymakers and investors should continue to monitor economic developments in China, given Indonesia's exposure through trade and export-oriented sectors.

The influence of BI 7-Day Reverse Repo Rate on Indonesian Composite Index

The results show that the Bank Indonesia 7-Day Reverse Repo Rate (BI7DRR) does not have a statistically significant effect on IHSB during the study period. From a theoretical perspective, an increase in interest rates is expected to reduce stock market attractiveness by shifting investor preferences toward fixed-income instruments (Ross et al., 1977). However, the empirical evidence suggests that IHSB was relatively insensitive to changes in BI7DRR during 2020–2024. This may be attributed to stable domestic economic fundamentals, supportive fiscal policies, and persistent foreign capital inflows that offset the impact of monetary tightening. Additionally, external factors—particularly U.S. monetary

policy and movements in the U.S. dollar—appear to play a more dominant role in shaping capital flows into the Indonesian stock market. This result is consistent with (Aryasta & Artini, 2019), who find that BI7DRR does not consistently influence IHSG. The mixed movement of IHSG during periods of consecutive BI7DRR increases in 2022 further supports this conclusion. While BI7DRR remains an important macroeconomic indicator, its effect on the stock market appears to be indirect and more pronounced over the long term rather than in the short run.

Conclusion

Based on the results of the model multiple linear regression and hypothesis testing show that only FTSE has a positive and statistically significant effect on IHSG, indicating a strong linkage between the European and Indonesian stock markets. In contrast, DJIA, Nikkei 225, and HSI exhibit positive but insignificant effects, suggesting that their influence on IHSG is limited in the short term and mediated by regional and domestic factors. BI7DRR is found to have a negative but insignificant impact on IHSG, implying that changes in Indonesia's policy rate do not immediately translate into stock market movements.

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