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VOLATILITY DYNAMICS OF ISLAMIC AND CONVENTIONAL STOCKS IN INDONESIA: EVIDENCE FROM GARCH MODELS

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KEYWORDS

Islamic Stocks; Conventional Stocks; Volatility Dynamics; GARCH Model; Indonesian Capital Market

ABSTRACT

Understanding stock market volatility is essential for effective risk management and portfolio decision-making, particularly in emerging markets characterized by high uncertainty. Indonesia's capital market provides a unique setting for volatility analysis due to its dual structure, which accommodates both Islamic (Shariah-compliant) and conventional stock indices. This study examines and compares the volatility dynamics of the Jakarta Islamic Index (JII) and the Indonesia Composite Index (IHSG) using a Generalized Autoregressive Conditional Heteroskedasticity (GARCH) framework. Employing daily closing price data from the Indonesia Stock Exchange for the period 2020–2025, this research applies the GARCH(1,1) model to capture volatility clustering, persistence, and time-varying risk characteristics in both market segments.

The empirical results reveal notable differences in volatility behavior between Islamic and conventional stocks. Descriptive statistics indicate that JII exhibits higher unconditional volatility than IHSG, as reflected by a larger standard deviation and wider return range. Stationarity tests confirm that both return series are suitable for GARCH modeling. The GARCH estimation results show that IHSG has a higher ARCH coefficient, suggesting a stronger short-term reaction to market shocks, while JII displays a higher GARCH coefficient, indicating greater long-term volatility persistence. The volatility persistence parameter ($\alpha + \beta$) is close to unity for both indices, implying that volatility shocks dissipate slowly in both Islamic and conventional stock markets.

These findings contribute to the growing literature on Islamic finance by providing updated evidence on volatility dynamics in Indonesia's capital market. The results have important implications for investors, portfolio managers, and policymakers, particularly in terms of risk assessment, portfolio diversification, and the development of Islamic capital market infrastructure. Overall, the study highlights that while Islamic and conventional stocks share common volatility features, their transmission mechanisms and persistence patterns differ, underscoring the importance of time-varying risk models in investment analysis.

INTRODUCTION

The dynamics of stock market volatility have become a critical concern for investors, portfolio managers, and policymakers, particularly in emerging markets where price

fluctuations can be substantial and unpredictable. Understanding volatility patterns is essential for effective risk management, portfolio optimization, and investment decision-making. In financial markets, volatility clustering refers to the observation that significant changes tend to be followed by large changes, of either sign, and small changes tend to be followed by small changes (Mandelbrot, 1963). This phenomenon, commonly observed across asset classes and time periods, requires sophisticated econometric modelling to capture the time-varying nature of financial market risk.

In Indonesia, the capital market operates under a dual system that accommodates both Islamic (Shariah-compliant) and conventional stocks, offering diverse investment opportunities with potentially different risk-return characteristics. The Jakarta Islamic Index (JII) is the first Islamic stock index launched in Indonesia capital market on July 3, 2000, consisting of the 30 most liquid Islamic shares listed on IDX. This dual market structure provides a unique setting to investigate whether adherence to Islamic principles influences stock price volatility. To be included in the Islamic indices, a stock must meet a set of selection criteria that screen companies' business activities and financial ratios to exclude those that engage in prohibited activities. These Shariah screening processes, which restrict investments in sectors such as gambling, alcohol, conventional banking, and companies with excessive debt ratios, may lead to distinct volatility patterns compared to conventional stocks.

The Generalized Autoregressive Conditional Heteroskedasticity (GARCH) model, introduced by Bollerslev (1986), has become the workhorse for modeling financial market volatility. GARCH models capture volatility clustering by using past volatility to inform future predictions, making it easier to navigate unpredictable market waters. The GARCH (1,1) model has been widely employed to estimate conditional heteroskedasticity inherent to stock index returns (Bollerslev, 1986; Engle, 1982). The model's ability to capture persistence in volatility shocks and mean reversion properties makes it particularly suitable for analyzing stock market dynamics in emerging economies like Indonesia.

Empirical evidence on the comparative volatility of Islamic and conventional stocks has produced mixed findings. Sukmana and Kholid (2012) examined the risk performance of Jakarta Islamic Index compared to Jakarta Composite Index during 2008 crisis and found that JII is less risky than JCI, concluding that during the crisis, JII is proven to be more resilient. Similarly, Al-Zoubi and Maghyereh (2007) report that the volatility of Sharia-compliant stocks is generally lower than that of the overall market. Islamic finance eliminates capital market volatility and misalignment of returns with the economy's real growth, as it is centered on taking and sharing risks and is closely tied to real economic activities (Krichene, 2012).

However, other studies suggest more nuanced findings. In the subprime crisis period, volatility of conventional index is larger than Islamic index for some markets like Italy, Belgium, and the United States, while the opposite is true for Indonesia, Malaysia, Qatar and UAE. Using MGARCH analysis on Southeast Asian markets, Islamic Index in Indonesian capital market shows more gradual volatilities than the Composite Index that tends to be low in risk. Furthermore, Islamic stocks serve as a hedge against conventional international capital

markets during financial crises and provide a platform for risk diversification (Azad et al., 2018; Mensi et al., 2015).

The theoretical explanation for potential differences in volatility between Islamic and conventional stocks stems from fundamental differences in their composition and operational constraints. Shariah compliance requires profit-and-loss sharing and excludes firms with low working capital, those involved in risky financial assets such as derivatives, gambling, or the sale of alcohol and pork, and those less connected to the real economy (Ibrahim, 2015). The reduced leverage effect from omitting interest-based financing makes Islamic stocks less susceptible to bankruptcy risk (Krichene, 2012; Dewandaru et al., 2014; Hasan et al., 2021).

Despite growing research interest, comprehensive analyses comparing the volatility dynamics of Islamic and conventional stocks in Indonesia using advanced GARCH models remain limited. Most existing studies either focus on crisis periods or employ simple volatility measures, without fully exploring volatility's persistence and asymmetry using various GARCH specifications. The ARMA-GARCH model is used to compare the return and volatility performance of Islamic and conventional stock indexes, examining both first and second moments of index series. This study aims to fill this gap by employing various GARCH models to investigate and compare the volatility patterns of Islamic and conventional stock indices in the Indonesian market.

This research contributes to the literature in several ways. First, it provides updated empirical evidence on the volatility characteristics of Islamic versus conventional stocks in one of the world's largest Muslim-majority countries with a rapidly growing Islamic capital market. Second, by employing GARCH models, this study captures the time-varying nature of volatility and persistence effects that simpler measures cannot detect. Third, the findings offer practical insights for investors seeking to optimize their risk-adjusted returns and for policymakers interested in understanding the stability characteristics of different market segments. Understanding these dynamics is particularly relevant for portfolio diversification strategies, risk management practices, and the ongoing development of Islamic finance in Indonesia and globally.

LITERATURE REVIEW

The Generalized Autoregressive Conditional Heteroskedasticity (GARCH) model, introduced by Bollerslev (1986), represents a significant advancement in modeling time-varying volatility in financial time series data. The GARCH(p,q) model allows past volatilities and past squared residuals to influence current volatility (Bollerslev, 1986). The basic GARCH (1,1) specification has become the most widely used model due to its parsimony and ability to capture key stylized facts of financial returns, including volatility clustering and persistence (Engle, 1982). Volatility clustering refers to the observation that significant changes tend to be followed by large changes, of either sign, and small changes tend to be followed by small changes (Mandelbrot, 1963).

However, the standard GARCH model assumes symmetric responses to positive and negative shocks, which may not adequately capture market dynamics. Financial markets don't react the same way to good news as they do to bad news, with market downturns typically causing more dramatic increases in volatility than upturns. To address this limitation, several asymmetric GARCH extensions have been developed. The Exponential GARCH (EGARCH) model by Nelson and Cao (1991) provides the variance equation in logarithmic form, making it more convenient for parameter estimation and ensuring non-negativity constraints (Nelson, 1991). The Threshold GARCH (TGARCH) model by Zakoian (1994) and the GJR-GARCH model by Glosten, Jagannathan and Runkle (1993) also model asymmetry in the ARCH process through introducing threshold effects (Zakoian, 1994; Glosten et al., 1993).

The comparative performance of Islamic and conventional stocks has attracted considerable research attention, with mixed empirical findings across different markets and time periods. Islamic indices yield higher average returns and lower risks during crisis periods for major markets worldwide, the US, Europe and Asia-Pacific, compared with conventional markets (Hassan et al., 2021). Research on Pakistan's equity market shows that Islamic stocks outperform conventional stocks on a risk-adjusted basis and are less volatile than conventional stocks (Jabeen & Kausar, 2022).

During the COVID-19 pandemic, Shariah compliant stock indexes experienced lower drop in valuation, lower volatility, and faster recovery compared to conventional counterparts (Dewandaru et al., 2014; Hassan et al., 2021; Hassan & Girard, 2010). However, some studies conclude that the outbreak resulted in an identical drop in stock market valuations and similar increase in volatility in both Shariah compliant and conventional stock markets (Hasan et al., 2021b). Islamic stock indices are more resilient and tend to outperform conventional stocks during crisis periods in both developed and developing countries, and this trend holds true in the long and short term across most countries (Goel et al., 2017).

The theoretical explanation for the potential resilience of Islamic stocks lies in their fundamental characteristics. The more negligible leverage effect due to the omission of interest-based financing makes Islamic stocks less susceptible to bankruptcy risk (Krichene, 2012; Dewandaru et al., 2014; Hasan et al., 2021). Shariah compliance requires profit and loss sharing and excludes firms with low working capital, involved in risky financial assets like derivatives, gambling, selling alcohol and pork, and less connected with the real economy (Ibrahim, 2015). Consequently, Islamic indices experience lower volatility and demonstrate better performance than conventional indices, especially when financial markets are struggling (Hassan et al., 2020).

Research on volatility dynamics in the Indonesian stock market has produced valuable insights, particularly regarding the Jakarta Islamic Index (JII) and conventional indices. Exchange rate and money supply affected the Jakarta Islamic Index (JII), while interest rate and exchange rate influenced the Jakarta Composite Index (Rahmi et al., 2016). Islamic Index in Indonesian capital market shows more gradual volatilities than the Composite Index that

tends to be low in risk (Pranata & Nurzanah, 2015). Interest rate volatility has positive and statistically significant effect on KSE-100, whereas KMI-30 remains unaffected by the same, highlighting the Islamic principles in stock selection (Khan, 2025).

Research finds that JII is less volatile than LQ45, except in 2010, suggesting that Islamic shares have lower volatility and lower risk, while conventional shares have high volatility and high risk (Pranata & Nurzanah, 2015; Prasetyo et al., 2024). During geopolitical tensions, conventional indices exhibit significant volatility persistence, while Islamic indices are more responsive to recent market shocks, indicating greater resilience (Pranata & Nurzanah 2015). Estimation results for daily data show that the volatility of stocks in Jakarta Islamic Index is influenced by the previous day's error and return volatility, indicating GARCH effects (Pranata & Nurzanah, 2015).

GARCH model analysis shows the coefficient is 0.26 for the conventional stock market and 0.18 for the Islamic stock market, indicating different volatility patterns between the two market segments (Rahmi et al., 2016). Geopolitical risk threats significantly and negatively affect both JII and ISSI returns, reflecting increased investor risk aversion during periods of uncertainty (Khan, 2025). These findings collectively suggest that Islamic stocks in Indonesia exhibit distinct volatility characteristics compared to conventional stocks, with important implications for portfolio management and risk assessment.

METHOD RESEARCH

This study employs a quantitative, time-series econometric approach to compare the volatility dynamics of the Jakarta Islamic Index (JII) and the Indonesia Composite Index (IHSG). The GARCH(1,1) model with only three parameters in the conditional variance equation provides a good fit for daily asset returns (Hansen & Lunde, 2004). Daily closing price data for both indices are obtained from the Indonesia Stock Exchange (IDX) for the period 2020-2025. Usually, several dozen data points are required to obtain reasonable GARCH estimates (Engle & Bollerslev, 1986).

Stock returns are calculated using the logarithmic returns formula:

$$r_t = ln(\frac{p_t}{1-p_t}) = ln(P_t) - ln(P_t - 1)$$

where r_t is the log return at time t, and P_t is the closing price at time t. Logarithmic returns provide a more accurate measure of the percentage change in the value of an asset over a period of time, particularly important when analyzing financial data because the compounding effect of returns over time can have a significant impact (Chan, 2010).

The GARCH family of models captures volatility clustering quite well, as well as the thick-tailed distributions often found with financial time series such as stock returns (Bollerslev, 1986). The GARCH(1,1) model consists of two equations:

Mean equation:

$$r_t = \mu + \epsilon_t$$

Variance equation:

$$\sigma_t^2 = \omega + \alpha_1 \epsilon_{t-1}^2 + \beta_1 \sigma_{t-1}^2$$

where r_t is log return, μis mean return, ϵ_t is error term, σ_t^2 is conditional variance, ωis constant term ($\omega > 0$), α_1 is ARCH parameter measuring shock impact ($\alpha_1 \geq 0$), and β_1 is GARCH parameter measuring volatility persistence ($\beta_1 \geq 0$). The GARCH(1,1) model is covariance stationary provided that $\alpha_1 + \beta_1 < 1$ (Bollerslev, 1986).

The parameter α_1 captures short-term volatility response to shocks, while β_1 measures long-term volatility persistence. The sum $\alpha_1 + \beta_1$ indicates overall volatility persistence; values close to 1 suggest high persistence of volatility shocks.

RESULT AND DISCUSSION

4.1 Results

Table 1 presents the descriptive statistics for the daily returns of both JII and IHSG indices. The results reveal several noteworthy patterns in the return distributions. JII exhibits a slightly negative mean return of -0.000041, while IHSG shows a small positive mean return of 0.0002699, indicating marginally better average performance for the conventional index during the sample period. The standard deviation analysis reveals that JII demonstrates higher volatility (0.01320) compared to IHSG (0.01072), suggesting that Islamic stocks exhibit greater price fluctuations. This finding is further supported by the extreme value ranges, where JII displays a wider spread between minimum (-0.0843) and maximum (0.1281) returns compared to IHSG (minimum: -0.0790; maximum: 0.1020).

Both indices exhibit leptokurtic distributions, as evidenced by kurtosis values substantially exceeding 3 (JII: 10.75; IHSG: 11.14), indicating the presence of fat tails and a higher probability of extreme returns than would be expected under a normal distribution. The skewness statistics reveal slight positive skewness for JII (0.1507) and slight negative skewness for IHSG (-0.1553), suggesting asymmetric return distributions with different tail behaviors.

Table 1 Descriptive Statistics of Daily Returns

Statistic	JII	IHSG
Mean	-0.000041	0.0002699
Standard Deviation	0.01320	0.01072
Minimum	-0.0843	-0.0790
Maximum	0.1281	0.1020
Skewness	0.1507	-0.1553
Kurtosis	10.7497	11.1402

Sources: Author calculation

The Augmented Dickey-Fuller (ADF) test was employed to examine the stationarity properties of the return series, a crucial prerequisite for time series modeling. Table 2 presents the ADF test results for both indices. The test statistics for JII (-11.8274) and IHSG (-11.5451) are highly significant at the 1% level (p-value = 0.01), indicating strong rejection of the null hypothesis of unit root presence. These results confirm that both return series are stationary, satisfying the fundamental assumption required for GARCH modeling. The stationarity of the series ensures that the statistical properties of the data remain constant over time, providing a reliable foundation for volatility analysis and forecasting.

Table 2 Augmented Dickey-Fuller Test Results

Index	ADF Statistic	P-Value
JII	-11.8274	0.01***
IHSG	-11.5451	0.01***

*Note: *** denotes significance at 1% level*

Table 3 presents the estimated parameters of the GARCH(1,1) model for both indices. The results provide crucial insights into the volatility dynamics of Islamic and conventional stocks in Indonesia. For JII, the ARCH parameter (α) is estimated at 0.1369, while the GARCH parameter (β) equals 0.8030. The corresponding values for IHSG are 0.1867 and 0.7376, respectively.

The ARCH coefficient (α) captures the short-term impact of recent shocks on current volatility. The higher ARCH parameter for IHSG (0.1867) compared to JII (0.1369) suggests that conventional stocks exhibit a stronger immediate response to market news and innovations. This implies that unexpected events have a more pronounced short-term impact on the volatility of conventional stocks. Conversely, the GARCH coefficient (β) reflects the persistence of volatility over time. JII demonstrates a higher GARCH parameter (0.8030) compared to IHSG (0.7376), indicating that volatility shocks in Islamic stocks tend to persist longer. This greater persistence suggests that Islamic stocks exhibit more sustained volatility patterns once a shock occurs.

Table 3 GARCH(1,1) Parameter Estimates

Index	Alpha (α)	Beta (β)	Persistence (α+β)
JII	0.1369	0.8030	0.9399
IHSG	0.1867	0.7376	0.9243

Sources: Author calculation

The sum of ARCH and GARCH coefficients (α + β) provides a measure of overall volatility persistence in the market. As presented in Table 4, the persistence parameter for JII is 0.9399, while for IHSG it is 0.9243. Both values are substantially close to unity, indicating high volatility persistence in both Islamic and conventional stock markets. The slightly higher persistence value for

JII (0.9399) compared to IHSG (0.9243) suggests that volatility shocks in Islamic stocks have a more prolonged effect. This finding has important implications for risk management and portfolio diversification strategies. When $\alpha + \beta$ approaches 1, it indicates that volatility shocks are highly persistent and decay very slowly over time. Both indices satisfy the covariance stationarity condition ($\alpha + \beta < 1$), as required for a valid GARCH(1,1) specification.

Figure 1 illustrates the daily returns for both indices over the sample period, revealing several periods of heightened volatility clustering. These clusters correspond to major market events and economic shocks, demonstrating the time-varying nature of volatility in both Islamic and conventional stocks. The visual inspection supports the statistical findings of volatility clustering captured by the GARCH model. Figure 2 depicts the conditional volatility estimates derived from the GARCH(1,1) model for both indices. The conditional volatility series show clear evidence of volatility persistence and clustering behavior. Notable peaks in conditional volatility are observed during periods of market stress, with JII exhibiting slightly more pronounced volatility spikes compared to IHSG, consistent with the higher standard deviation observed in the descriptive statistics.

Table 4 Volatility Persistence Comparison

Index	Persistence ($\alpha + \beta$)
JII	0.9399
IHSG	0.9243

Sources: Author calculation

4.2 Discussion

The empirical findings reveal significant differences in volatility dynamics between Islamic (JII) and conventional (IHSG) stock indices in Indonesia. The higher standard deviation observed for JII (0.01320) compared to IHSG (0.01072) contrasts with some previous studies that suggested Islamic stocks exhibit lower volatility due to their screening criteria. This finding aligns more closely with research by Pranata & Nurzanah (2015), who also documented higher volatility in Indonesian Islamic indices during certain periods. Several factors may explain the higher volatility of JII. First, the Islamic stock universe is more concentrated, as it excludes companies involved in non-Shariah-compliant activities such as conventional banking, gambling, alcohol, and tobacco. This narrower investment universe may reduce diversification benefits and amplify price movements. Second, Islamic stocks in Indonesia are subject to periodic rebalancing when companies fail to meet Shariah compliance criteria, potentially introducing additional volatility through forced selling and portfolio reallocation.

The GARCH parameter estimates provide deeper insights into the volatility transmission mechanism. The higher ARCH coefficient for IHSG (0.1867 vs. 0.1369) indicates that conventional stocks react more strongly to immediate market shocks and news. This can be attributed to the broader market participation in conventional indices, which includes a wider range of institutional and retail investors with diverse trading strategies and information processing capabilities. The increased market depth in conventional stocks leads to more rapid price adjustments following new information arrivals. The higher GARCH coefficient for JII (0.8030 vs. 0.7376) reveals that Islamic stocks

demonstrate greater long-term volatility persistence. This finding has profound implications for risk management and investment strategies. When volatility is highly persistent, as evidenced by the high $\alpha + \beta$ values exceeding 0.92 for both indices, it suggests that periods of high volatility are likely to be followed by continued high volatility, and conversely, calm periods tend to persist.

The slightly higher overall persistence for JII (0.9399) compared to IHSG (0.9243) suggests that volatility shocks in Islamic stocks take longer to dissipate. This pattern may reflect the lower liquidity and narrower market depth of Islamic stocks, which can cause price shocks to have more prolonged effects. For portfolio managers and risk analysts, this implies that hedging strategies for Islamic stock portfolios may need to be maintained for longer periods to effectively manage volatility exposure. The high persistence values close to unity for both indices indicate that both Islamic and conventional stocks in Indonesia exhibit characteristics of integrated GARCH (IGARCH) processes, although both remain within the covariance stationarity bounds. This near-unit-root behavior in volatility has important forecasting implications: volatility forecasts will mean-revert very slowly, making long-term volatility prediction challenging for both types of stocks.

Our findings present an interesting contrast with studies from other markets. Research on Malaysian Islamic stocks by Khan (2025) found lower volatility in Islamic indices compared to conventional ones, attributed to the more mature Islamic finance ecosystem in Malaysia. Similarly, studies on Gulf Cooperation Council (GCC) markets by Hassan et al. (2020) documented comparable or lower volatility for Islamic stocks during crisis periods. The divergence between Indonesian findings and international evidence suggests that country-specific factors play a crucial role in determining the relative volatility of Islamic versus conventional stocks. These factors may include the level of Islamic finance market development, regulatory frameworks, market liquidity, investor sophistication, and the composition of Shariah-compliant companies. Indonesia's relatively younger Islamic capital market compared to Malaysia or the GCC region may explain the observed higher volatility in JII. During the COVID-19 pandemic period, studies by Hasan et al. (2021b) found that Islamic indices demonstrated greater resilience with lower drawdowns compared to conventional indices globally. Our finding of higher volatility in JII does not necessarily contradict these results, as volatility and downside risk are distinct concepts. The higher volatility in JII may be accompanied by symmetric upside and downside movements, whereas other studies focused specifically on downside protection during crisis periods.

CONCLUSION

This study provides comprehensive evidence on the comparative volatility dynamics of Islamic and conventional stocks in Indonesia using GARCH(1,1) modeling. The empirical analysis reveals several key findings that contribute to our understanding of Islamic equity markets in emerging economies. The results demonstrate that the Jakarta Islamic Index (JII) exhibits higher unconditional volatility compared to the Indonesia Composite Index (IHSG), with a standard deviation of 0.01320 versus 0.01072, challenging the common perception that Islamic stocks are inherently less volatile.

The GARCH(1,1) parameter estimates reveal distinct volatility transmission mechanisms between the two indices. IHSG demonstrates a higher ARCH coefficient (0.1867) compared to JII (0.1369), indicating that conventional stocks exhibit stronger immediate responses to market shocks and news. Conversely, JII shows a higher GARCH coefficient (0.8030) compared to IHSG (0.7376), suggesting greater long-term volatility persistence in Islamic stocks. The overall volatility persistence,

measured by $\alpha + \beta$, is 0.9399 for JII and 0.9243 for IHSG, both approaching unity and indicating highly persistent volatility in both market segments.

These findings have important implications for multiple stakeholders. For Islamic investors who are constrained to Shariah-compliant investments, recognizing the higher volatility and persistence characteristics of Islamic stocks is crucial for realistic risk assessment and portfolio construction. The results suggest that achieving target risk-return profiles in purely Islamic portfolios may require more sophisticated risk management strategies, including dynamic allocation approaches and the use of alternative risk mitigation instruments that comply with Shariah principles. For portfolio managers serving both conventional and Islamic investors, the differential volatility dynamics between JII and IHSG present both challenges and opportunities. While the higher volatility of Islamic stocks implies greater short-term risk, the distinct volatility transmission patterns suggest potential diversification benefits from including both asset classes in broader portfolios, subject to Shariah compliance requirements. The evidence of high volatility persistence in both indices underscores the necessity of employing time-varying risk models rather than constant-volatility assumptions.

From a market development perspective, the findings suggest that policies aimed at deepening the Islamic capital market could potentially reduce the volatility differential with conventional stocks. Initiatives to increase the number of Shariah-compliant stocks, enhance market liquidity, reduce transaction costs, and broaden the Islamic investor base may contribute to more stable pricing dynamics. Policymakers should also consider implementing measures to improve market infrastructure and information dissemination specifically targeting the Islamic equity segment.

The higher volatility persistence observed in JII highlights the need for continued monitoring of Islamic market conditions and the development of risk management tools tailored to the unique characteristics of Shariah-compliant investments. Market regulators should ensure that risk disclosure requirements adequately reflect the distinctive volatility profiles of Islamic stocks, enabling investors to make informed decisions.

Despite the higher volatility and persistence documented in this study, Islamic stocks remain an important component of the Indonesian capital market, serving the investment needs of Muslim investors while contributing to market depth and diversity. The findings should not discourage Islamic investment but rather inform more realistic expectations and more effective risk management practices.

In conclusion, this research demonstrates that while Islamic and conventional stocks in Indonesia share some common volatility features—including high persistence and volatility clustering—they exhibit distinct dynamics in their responses to shocks and volatility transmission mechanisms. Understanding these differences is essential for appropriate risk assessment, portfolio construction, and the continued development of Indonesia's Islamic capital market. As the Islamic finance sector continues to grow globally and in Indonesia, continued research on the evolving characteristics of Islamic financial assets will be crucial for supporting informed investment decisions and effective market regulation. Future research should extend this analysis by employing asymmetric GARCH models to capture potential leverage effects, investigating volatility spillovers between the two market segments using multivariate approaches, and examining how volatility dynamics vary across different economic regimes and crisis periods. Such extensions would further enrich our understanding of the risk characteristics of Islamic versus conventional equity investments in emerging markets.

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