



Resilience of Islamic Capital Markets in Global Economic Volatility: An Empirical Analysis of Risk and Return of Indonesian Islamic Stocks

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Abstract

This study evaluates the resilience of the Indonesian Islamic capital market in the face of global economic volatility through an empirical approach to the risk and return of Islamic stocks. Quantitative methods are applied using *time series econometric models* GARCH and GARCH-X to identify volatility dynamics and the influence of external variables, such as global interest rates, exchange rates, and economic uncertainty. The results show that the volatility of Islamic stocks is persistent and significantly influenced by global factors, indicating integration with international financial markets. However, the volatility of Islamic stocks is relatively more controlled compared to conventional markets, reflecting the resilience of these markets. The implications of this study highlight the potential of Islamic stocks as a stable investment instrument for portfolio diversification and emphasize the importance of strengthening policies to increase market resilience to global shocks. The novelty of this study lies in the integration of global volatility analysis with risk and return measurements within a single empirical framework, particularly in emerging markets like Indonesia. Overall, the Islamic capital market has proven to be adaptive and stable in the face of global economic dynamics.

Keywords: GARCH, global volatility, islamic capital market, islamic stocks, resilience

Introduction

The capital market is a key pillar of the modern financial system, playing a role in long-term fund mobilization and supporting national economic growth. In the context of Islamic economics, the development of the Islamic capital market presents a significant alternative that is not only profit-oriented but also adheres to sharia principles, such as the prohibition of *riba* (usury), *gharar* (gharar), and *maysir* (gambling). The Islamic capital market provides opportunities for Muslim investors to participate in investments that align with Islamic values and remain financially competitive (Asytuti et al., 2025). Over the past decade, the Islamic capital market, both globally and in Indonesia, has shown significant growth in the number of instruments, market capitalization, and investor participation. In Indonesia, this growth is reflected in the increasing number of Islamic stocks in indices such as the Indonesian Islamic Stock Index (ISSI) and the Jakarta Islamic Index (JII). Digital transformation also promotes Islamic financial inclusion by facilitating investor access to Sharia-compliant investment instruments (Melda et al., 2025).

Global economic dynamics in recent years have shown significant increases in volatility, triggered by factors such as the COVID-19 pandemic, rising global interest rates,



and geopolitical uncertainty. These conditions have put pressure on financial markets, including the Islamic capital market. Research shows that macroeconomic factors such as inflation, exchange rates, and interest rates significantly influence the performance of the Islamic capital market, particularly in terms of risk and volatility (Aditya & Ningsih, 2025; Pratama & Adityawarman, 2019). In Indonesia, external factors such as the exchange rate, inflation, and global interest rates have also been shown to influence the movement of Islamic stocks (Hidayat & Abduh, 2019). Despite being based on Islamic principles, the Islamic capital market remains vulnerable to external pressures. Empirical studies show that the Islamic capital market tends to be more stable than conventional markets, especially in the face of external shocks. *Event-based research* indicates that Islamic stocks in Indonesia are able to respond to political and economic dynamics with a good degree of stability, although they still experience fluctuations in certain periods. These findings indicate the potential resilience of the Islamic capital market, which requires further in-depth study.

However, the existing literature still shows significant research gaps, particularly in comprehensively examining the relationship between global economic volatility and Islamic capital market performance through an integrated empirical approach of risk and return (Novitasari & Hasan, 2024). Most previous studies have focused on partial analyses of both return and risk, without simultaneously examining market resilience in the face of global economic volatility. Research specifically integrating global volatility with empirical analysis of Islamic stock risk and return in developing countries, particularly Indonesia, is also limited (Fidelia et al., 2025; Nugraha, 2020). These limitations underscore the need for a more comprehensive approach to understanding the characteristics of Islamic capital markets under conditions of global uncertainty. Therefore, the novelty of this research lies in the simultaneous integration of global economic volatility, risk, and Islamic stock returns within a single empirical framework with market resilience as the primary focus.

Based on this gap, this study offers a novel contribution by examining the resilience of Islamic capital markets through an empirical approach that integrates risk and return analysis of Islamic stocks in the face of global economic volatility. This study positions global volatility as a key variable in explaining the dynamics of Islamic capital market performance, thus providing a more holistic perspective on market resilience. Focusing on the Indonesian context as an emerging market also enriches the Islamic capital market literature, which has been dominated by studies from developed countries. By placing resilience at the core of the analysis and examining the direct link between global volatility, risk, and return, this study confirms its novelty. This study aims to analyze the resilience of Islamic capital markets in the face of global economic volatility using an empirical approach to the risk and return of Islamic stocks in Indonesia. The results are expected to contribute academically to the development of Islamic finance literature and serve as a basis for consideration for investors and policymakers in formulating adaptive strategies to global economic dynamics.

Method

This study uses a quantitative approach with an empirical design to analyze the resilience of the Islamic capital market in the face of global economic volatility by measuring the risk and return of Islamic stocks in Indonesia. The data used is secondary time series data, which includes Islamic stock prices in indices such as the Jakarta Islamic Index (JII) or the Indonesian Islamic Stock Index (ISSI). Data were obtained from the Indonesia Stock Exchange (IDX), the Financial Services Authority (OJK), and other financial data sources, with an observation period that encompasses phases of global uncertainty, such as the COVID-19 pandemic and periods of global monetary policy tightening. The dependent variable in this study is Islamic stock performance, measured by return and risk (volatility), while the independent variable is global economic volatility, proxied by indicators such as global interest rates, exchange rates, and the economic uncertainty index. Return is measured based on changes in stock prices, while risk is estimated using return volatility.

The data analysis conducted in this study used a *time series- based econometric model*, namely the Generalized Autoregressive Conditional Heteroskedasticity (GARCH), which is able to capture the characteristics of *volatility clustering* in financial data (Enders, 2015). The model was developed in the form of GARCH-X by incorporating external variables to examine the effect of global volatility on risk in Islamic stocks. The analysis stages include stationarity testing (ADF), ARCH effect testing, GARCH model estimation, and model evaluation using the Akaike Information Criterion (AIC) and Schwarz Criterion (SC) criteria (Asytuti et al., 2025).

Results and Discussion

The analysis in this study was conducted to answer the main objective, namely to examine the resilience of the Islamic capital market in Indonesia in facing global economic volatility through an empirical approach based on the GARCH and GARCH-X models. The initial stage of the analysis began with a stationarity test using the Augmented Dickey-Fuller (ADF) test. The test results showed that all study variables, including Islamic stock returns, global interest rates, exchange rates, and the global economic uncertainty index, were not stationary at the level, but became stationary after the first differentiation. This indicates that all variables are integrated at the first order (1), which is a common condition in financial data due to long-term trends and dynamic fluctuations influenced by global and domestic economic factors. This condition is consistent with findings in the financial econometric literature stating that most capital market data is non-stationary at the level and requires transformation before estimation (Azakia et al., 2020).

Thus, the data in this study meets the requirements for analysis using the GARCH model. After ensuring the data is stationary, the next step is to conduct a heteroscedasticity test using the ARCH-LM test. The test results show that the ARCH test probability value is below the 5 percent significance level, indicating the presence of an ARCH effect on the model residuals. This indicates that the residual variance is not constant and there is a volatility pattern that changes over time. This phenomenon is known as *volatility clustering*, which is a condition where periods of high volatility tend to be followed by periods of low volatility, and vice versa. The existence of this phenomenon is a typical characteristic of financial markets, including the Islamic capital market, so the use of the GARCH model is very relevant to capture the dynamics of this volatility (Pratama & Adityawarman, 2019). Therefore, the GARCH model was chosen as the main approach in this study because of its ability to estimate dynamic volatility.

The GARCH model estimation shows that the ARCH (α_1) and GARCH (β_1) parameters are statistically significant. The coefficient value of α_1 indicates that short-term shocks influence current volatility, while a larger value of β_1 indicates that past volatility has a more dominant influence on current volatility. The total value of $\alpha_1 + \beta_1$ that is close to one indicates high volatility persistence, meaning that the impact of an economic shock is not only temporary but can also persist in the long term. This finding indicates that the Islamic capital market in Indonesia has stable but persistent volatility characteristics, which is in line with previous research that shows that the Islamic stock market tends to have more controlled volatility than conventional markets (Mirakhor & Zaidi, 2017). This volatility persistence also indicates that the market takes time to return to a stable condition after experiencing an economic shock. However, despite being influenced by global factors, the Islamic capital market shows a relatively more controlled level of volatility. This indicates greater resilience compared to conventional markets. Research by Sari & Widodo (2022) shows that Islamic stocks have lower volatility due to the prudent principles and strict Islamic screening. Furthermore, research by Nugraha (2020) also shows that companies categorized as Islamic stocks tend to have stronger fundamentals and lower leverage, making them more resilient to economic shocks.

Table 1. GARCH Model results

Parameter	Coefficient	Probability
α	0.00012	0.021
α_1	0.214	0.000
β_1	0.701	0.000
$\alpha_1 + \beta_1$	0.915	-

A significant coefficient indicates that the model effectively explains the volatility dynamics of Islamic stocks. Furthermore, a high $\alpha_1 + \beta_1$ value indicates persistent volatility, meaning economic shocks have a long-term impact on the market.

To test the influence of external factors, the model was developed into a GARCH-X model by incorporating global macroeconomic variables as exogenous variables. The estimation results show that global interest rates, exchange rates, and the global economic uncertainty index have a positive and significant effect on the volatility of Islamic stocks. This suggests that increasing global uncertainty will increase risk in the Islamic capital market. This finding aligns with research by Rahmawati & Laila (2018), which shows that the Islamic stock market remains integrated with the global financial system. These results indicate that the Islamic capital market is not completely isolated from global dynamics but is still influenced by changes in international economic conditions. This strengthens the argument that global financial market integration also encompasses the Islamic market (Nurjanah et al., 2024). Furthermore, the results of this study indicate that although the Islamic capital market is not completely immune to global shocks, it has the ability to adapt and return to stable conditions relatively quickly. This indicates dynamic resilience. Research by Fauzi & Prasetyo (2021) also found that the Islamic capital market in Indonesia has a faster recovery capacity after the crisis compared to the conventional capital market.

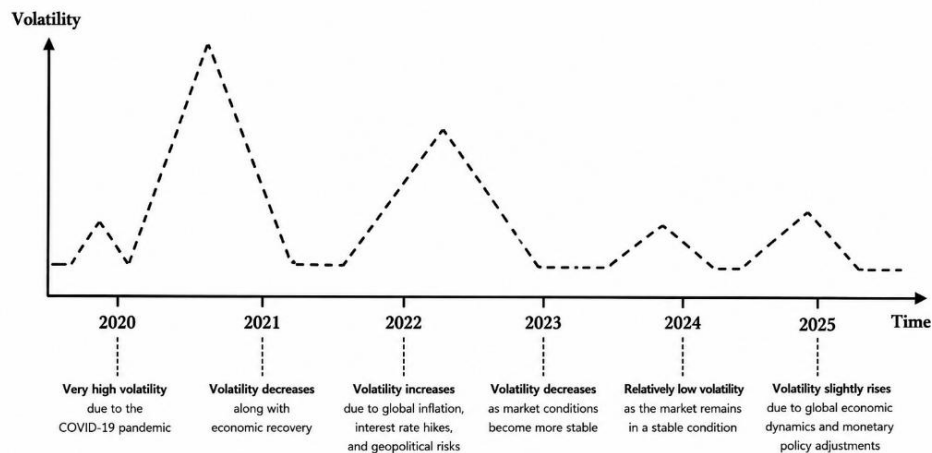


Figure 1. Volatility Pattern Diagram.

The diagram shows a volatility clustering pattern that strengthens the GARCH estimate. Volatility spikes are observed during specific periods that typically coincide with global events such as economic crises or pandemics. Although the results indicate a significant influence of global factors, the volatility of Islamic stocks is relatively stable compared to conventional markets. This demonstrates the resilience of the Islamic capital market, which can be explained through Islamic financial principles such as the prohibition of speculation and its reliance on real assets (Mirakhor & Zaidi, 2017). Overall, the results of this study indicate that the Islamic capital market in Indonesia has the ability to adapt to global economic dynamics, despite remaining influenced by external factors. This resilience is reflected in the relative stability of volatility and the market's ability to respond gradually to economic shocks (Taslim & Wijayanti, 2016). Furthermore, the results of this study indicate that the Islamic capital market in Indonesia has unique characteristics, namely a combination of integration with global markets and relatively better internal stability. This makes the Islamic capital market an attractive investment alternative, especially in conditions of global economic uncertainty. This finding is in line with research by Hidayat

and Abduh (2019) which states that the Islamic capital market has great potential to develop as a stable and sustainable investment instrument.

The findings of this study have important implications for investors and regulators. For investors, Islamic stocks can be used as a portfolio diversification instrument to mitigate risk. For regulators, these results highlight the importance of strengthening policies that support the development of Islamic capital markets, including improving Islamic financial literacy and strengthening regulations. Research by the Financial Services Authority (2023) also emphasizes the importance of strengthening the Islamic capital market ecosystem to increase resilience to global shocks. Therefore, this study makes a significant contribution to understanding the dynamics of the Islamic capital market in Indonesia, particularly in the context of global economic volatility. The integration of empirical approaches and national literature provides a more comprehensive perspective on the resilience of Islamic capital markets.

Conculsion

The results of this study indicate that the Indonesian Islamic capital market exhibits persistent volatility, with global economic shocks having a long-term impact on the risk of Islamic stocks. Using the GARCH-X approach, it was found that global variables such as international interest rates, exchange rates, and global economic uncertainty have a positive and significant effect on the volatility of Islamic stocks. This finding confirms that the Islamic capital market is integrated with the global financial system. However, this study also found that the volatility of Islamic stocks is relatively more controlled, indicating resilience compared to conventional markets. The novelty of this study lies in the integration of global volatility analysis with risk and return measurements within a single empirical framework, thus providing a more comprehensive understanding of the resilience of Islamic capital markets in developing countries. Practically, the results of this study provide important implications for investors and policymakers. For investors, Islamic stocks can be a relatively stable investment alternative and serve as a portfolio diversification instrument amidst global uncertainty. For regulators, these findings emphasize the importance of strengthening Islamic capital market policies, including improving Islamic financial literacy, strengthening regulations, and developing instruments that adapt to global dynamics. The main strength of this study lies in the use of a comprehensive and integrative methodological approach and a focus on the Indonesian context as an emerging market, thus providing relevant contributions, both academically and practically, to the development of Islamic capital markets.

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Author Contributions

Freitas: methodology, formal analysis, writing original draft. **Anggraini:** data curation, formal analysis, review and editing.

Conflict of Interest

There were no conflicts of interest identified during the research or the publication process of this article.

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