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Macroeconomic Determinants of Islamic Banking Assets in Asian Countries 2021-2025: Random Effect Model Analysis

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ABSTRACT

Study's aims: This study aims to analyze the impact of macroeconomic determinants interest rates, inflation, and GDP per capita on the growth of Islamic banking assets in major Asian countries during 2021–2025. **Design/Methodology/Approach:** This study employs a quantitative research approach using panel data regression analysis with the Random Effect Model (REM) to capture both cross-country and time-series variations. Secondary data were collected from the Statistical, Economic, and Social Research and Training Centre for Islamic Countries (SESRIC) and the World Bank Open Data database. **Findings:** The results reveal that interest rates have a positive and statistically significant effect on the growth of Islamic banking assets. Meanwhile, inflation and GDP per capita exhibit positive but statistically insignificant effects. These findings indicate that Islamic banking asset growth remains indirectly influenced by conventional monetary policy dynamics despite the prohibition of riba in Islamic finance principles. **Theoretical contribution/Originality:** This study enriches the Islamic banking literature by providing cross-country evidence on the relationship between macroeconomic variables and Islamic banking asset growth in countries with different banking system structures during the post-pandemic period. **Practitioner/Policy implication:** The findings suggest that policymakers and Islamic banking institutions should strengthen sharia-compliant macroprudential policies, improve liquidity management, and diversify financing strategies to maintain the stability and sustainability of Islamic banking assets amid global economic uncertainty.

Keywords: Islamic Banking Assets; Interest Rate; Inflation; GDP Per Capita; Random Effect Model

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Introduction

Islamic banking has experienced rapid development in recent decades, especially in countries with the largest Islamic banking asset holdings (Farah et al., 2025) such as (Ledhem, 2022) Saudi Arabia, Malaysia, the United Arab Emirates, and (Amran et al., 2023) other Asian countries Islamic finance assets reached approximately US$4.93 trillion in 2024 and are projected to grow to US$7.53 trillion by 2028 (Neo & Khadra, 2025), reflecting strong and sustained expansion of the global Islamic finance industry (Salam Gateway, 2025). This growth is driven by digitalisation, the expansion of sustainable finance initiatives such as Value-Based Intermediation (VBI), and strong government support in key regions including the Gulf Cooperation Council (GCC) countries and Southeast Asia (ICD, 2025). This increase also

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driven by the increasing awareness of the Islamic financial system as well as the stability offered in the face of global economic dynamics (Farah et al., 2025). Studies by Utami (2025) and Sitompul et al. (2021) and stated that when the world was hit by high inflation, public trust in Islamic banking tends to increase compared to conventional banking. This follows due to past experience during the economic crisis of 1998, when inflation spikes many conventional banks failed. Ultimately result in negative spreads towards the inability of conventional bank to return both principal and interest to depositor.

Nonetheless, one of the main challenges faced is how Islamic banking assets react to changes in interest rates and inflation in different countries with diverse economic characteristics Savon (2025) and Farah et al. (2025). Theoretically, the macroeconomic environment directly affects financial institutions. The classical Keynesian framework suggests that interest rates influence investment and savings behavior, which in turn affects banking liquidity and the supply of credit (Asyiqin, 2025). In Islamic finance, although interest (riba) is prohibited, conventional interest rate movements still indirectly impact Islamic banking through interbank markets and customer behavior (Bakhouche et al., 2022).

In the Islamic banking system, interest rates are often the main factor that determines the profitability and growth of banking assets (Drissi & Guerguer, 2023). Although Islamic banks operate on the principle of no usury, global monetary policy that depends on interest rates still has an indirect impact on their operations (Hasan et al., 2022; Rizvi et al., 2020). This influence is mainly due to competition with conventional banks (Frihatni et al., 2023) and by the use of conventional financial references in the pricing of Islamic products (Uluyol, 2024).

In addition, the study conducted by Bakhouche et al. (2022) highlighted that global interest rate volatility can affect the stability of Islamic bank assets, especially in countries that implement dual banking systems. In dual banking environments fluctuations in global interest rates can affect funding costs, asset valuations, and competitive positioning of Islamic banks relative to conventional institutions. Empirical studies conducted by Utami (2025), Frihatni et al. (2023), and Amran et al. (2023) consistently demonstrate that macroeconomic variables significantly influence the performance of Islamic banking.

Inflation and interest rates tend to negatively impact third-party funds in Islamic banks, while GDP per capita has a dual effect, potentially reducing or stimulating banking activity depending on prevailing consumption trends (Jatnika, 2020). In Malaysia and Indonesia, GDP growth and inflation are closely linked to the profitability of Islamic banking, particularly through its influence on national revenues and financing risk management (Muflih & Fathiyyah, 2023). In other contexts, such as Bangladesh and Turkey, Islamic banks are highly responsive to inflationary volatility, which shapes deposit behavior and asset allocation strategies (Al-Jihadi & Suprayogi, 2020).

On the other hand, inflation is a macroeconomic factor that affects people's purchasing power, financial sector performance, and the stability of Islamic banking assets Utami (2025) and (Rosyadah et al., 2020). Some studies show that high inflation rates can lower the real value of Islamic bank assets, especially in hyperinflationary conditions such as those that have occurred in Sudan and some Middle Eastern countries (Hassan & Bashir, 2001). However, Islamic banks are considered more resistant to inflation than conventional banks because of their asset-based financing model (Wicaksono, 2022). Another study by Rosyadah et al. (2020) mentioning that in Indonesia, Islamic banks are more vulnerable to inflationary pressures than conventional banks. Meanwhile, a study by Ali et al. (2018) found that a surge in inflation can suppress the profitability of Islamic banks by reducing people's purchasing power for sharia-based banking products. Inflation increases uncertainty in the financial environment, causing Islamic banks to revise credit risk premiums and adjust real yields on their assets to maintain stability (Permana & Dillak, 2019), while conventional interest rate benchmarks can distort Islamic deposit flows by influencing public expectations and investment decisions (Nisha, 2019).

In addition to interest rates and inflation, GDP per capita is also an important variable in analyzing the growth of Islamic banking assets. GDP per capita reflects a country's level of prosperity and people's capacity to access financial services, including Islamic banking (Beck et al., 2007). In countries with the largest Islamic banking assets, GDP per capita plays a role in determining financial inclusion and the penetration rate of sharia-based banking services. Studies by Grassa and Gazdar (2014) show that in Gulf Cooperation Council (GCC) countries, differences in GDP per capita also affect the effectiveness of Islamic financial systems compared to conventional ones in driving economic growth. Although countries with high GDP per capita tend to have more advanced financial systems, Islamic banks still show a significant role in stimulating growth, especially through asset-based financing and risk participation approaches. In terms of GDP per capita, several studies underscore its importance in predicting the performance of the banking sector; for example, it is a strong predictor of savings behavior in Indonesia (Savitri, 2016). Islamic banks in high-GDP economies such as Saudi Arabia and the UAE tend to experience higher asset expansion due to strong economic performance (Putri, 2016). This expansion is further supported during periods of low inflation and moderate interest rates, which provide a stable macroeconomic environment for financial growth (Hidayah, 2019).

Each country with large Islamic banking asset holdings has unique economic conditions, so the relationship between interest rates, inflation, and the growth of Islamic bank assets varies (Ayub & Masih, 2014). Countries with strict Islamic financial regulations, the impact of macroeconomic changes on Islamic banking assets tends to be smaller than countries that implement a dual banking system. However, a study by Chowdhury and Rasid (2016) GCC countries reveals that rising inflation could lead to a decrease in financing volumes, while an increase in the global benchmark interest rate has an impact on the liquidity strategies of Islamic banks. In addition, the study by Khozin et al. (2022) reveals that in developing countries such as Indonesia and Pakistan, tight monetary policies that implement high interest rates can hinder the growth of Islamic banking assets. Comprehensive cross-country studies for the 2021–2022 period are still limited. Most previous studies use historical data prior to the COVID-19 pandemic and have not taken into account the latest macroeconomic dynamics. For example, the study conducted by Hossain (2016) still relies on historical data until 2014. In addition, the lack of specific research focus on Islamic banking assets is also seen in the study by Mushtaq and Siddiqui (2017), which focuses more on deposits and profitability than specifically addressing the growth of banking assets. Post-pandemic market structure changes, due to tight monetary policy and surge in inflation, have also not been widely studied in the context of Islamic banking for the 2021–2022 period (Mubarok et al., 2024).

This study aims to fill the research gap by analyzing the influence of interest rates, inflation, and GDP per capita on the growth of Islamic banking assets during the 2021–2025 period. The research focused on the ten countries with the Islamic banking assets, namely Bangladesh, Brunei, Indonesia, Kuwait, Malaysia, Qatar, Pakistan, Oman, Turkiye, and United Arab Emirates. This cross-border approach not only provides a more comprehensive picture, but also takes into account the differences in financial systems between countries that implement single and dual banking. Thus, the results of this study are expected to provide relevant recommendations for monetary policymakers in managing the growth of the Islamic banking sector in the midst of dynamic global economic changes.

Literature Review

Total Islamic Banking Assets

Total Islamic banking assets describe the size and capacity of the Islamic banking system in supporting economic growth and financial stability. In general, total assets reflect the total economic resources owned by Islamic banks, including financing, investment, and cash regulated according to sharia principles. Total asset growth is an important indicator for the development of the Islamic banking industry, as well as reflecting the response to macroeconomic conditions such as inflation, GDP,

conventional interest rates, and trade openness. Empirical research shows that macroeconomic factors play a significant role in the growth of Islamic banking assets.

GDP and National Revenue contributed positively to the increase in bank assets, as economic growth drove demand for sharia financing (Baita et al., 2024). Inflation can affect the real value of assets and people's preferences for sharia-based financial instruments. In conditions of high inflation, Islamic banks tend to be more cautious in distributing financing, thus affecting total assets. Baita et al. (2024) found that GDP per capita, inflation, and trade openness have a significant influence on financial development in nine countries with advanced Islamic banking systems. These results show that macroeconomic stability plays a direct role in the expansion of the total assets of Islamic banks.

Conventional interest rates also play an important role. Although Islamic banks do not recognize interest, changes in the benchmark interest rate can affect the competitiveness of Islamic products as well as the flow of funds from conventional banks to Islamic banks (Kasri, 2010). He also pointed out that the growth of Islamic banking in Indonesia is significantly influenced by mudharabah deposits, rate of return, and number of bank branches, all of which are closely intertwined with macroeconomic conditions. Trade openness and political stability have also strengthened asset growth through increased economic activity and international investor confidence in the Islamic financial system (Daoud & Kammoun, 2020). Meanwhile, he also emphasized that the capital ratio, bank size, and asset composition to total assets are important predictors of the stability and growth of Islamic banking assets globally.

Interest Rate

Interest rates are theoretically not used in the Islamic banking system, but it’s should be considered as a macroeconomic factor for Islamic banks because they are still indirectly affected through the interaction of the conventional financial system and the dual banking system. As per stated by Hasmad and Alosman (2022) any increase in interest rates has no direct impact on Islamic banking that uses the buying and selling system (ba'i). The payment margin based on fixed rate contracts that do not change over time. Research shows that interest rate movements can influence people's preference for more stable sharia-based financial products, especially when high interest rates cause volatility in conventional sectors (Rosyadah et al., 2020). Kristianingsih et al. (2022) and Hidayat et al. (2020) shows that interest rates have a negative impact on the profitability of Islamic banks in Indonesia. Similar to study by Djelassi and Boukhatem (2024) which shows the negative impact of interest rate shocks on Islamic deposits in Saudi banks. Difference with study by Zaenuri et al. (2025) the interest rate have a positive but insignificant effect in Indonesia Islamic bank.

Meanwhile, Nouman et al. (2022) and Possumah and Ahmat (2021) highlighted that the impact is transmitted through its effect on banks' profit margins. In Islamic banks interest rates are commonly used as benchmarks in determining financing margins and profit-sharing ratios (Nouman et al., 2022) making Islamic banks vulnerable to interest rate risk, even though their operations are Shariah-compliant. This indicates that Islamic banks face interest rate risk primarily in their operations and asset management, with limited immediate impact on profitability. Thus, Islamic banks may face withdrawal pressures from depositors seeking higher returns elsewhere, even though their financing contracts are structured to be Shariah-compliant. Many Islamic banking products, such as Murabahah financing and lease-based contracts, use conventional interest rates as benchmarking references, making them indirectly sensitive to fluctuations in interest rates (Hasmad & Alosman, 2022; Rosyadah et al., 2020).

In some countries such as the GCC the influence of interest rates is more structural on bank credit flows, but not significantly directly on the profitability of Islamic banks (Al Sharif, 2021). Interest rate changes in GCC countries strongly affect credit supply and financing activity indirectly. The focus on credit dynamics highlights that interest rate influence in practice operates through the transmission of

monetary policy into lending behavior and credit availability, shaping how Islamic banks expand assets and support economic activity.

Inflation

Inflation is a macroeconomic variable that affects the stability of Islamic bank assets. According to Perry et al. (1980) theory, rising inflation increases economic uncertainty, making it more difficult for banks to forecast costs, expected returns, and future cash flows. This uncertainty can weaken profitability and complicate financial planning, particularly for Islamic banks that rely on fixed-rate or pre-agreed profit margins. Inflation also alters household saving behavior, as higher living costs reduce disposable income and encourage immediate consumption over savings, leading to a decline in deposits placed in Islamic banks (Rahmalia et al., 2022). Since third-party funds constitute a major source of liquidity, a reduction in deposits limits Islamic banks' ability to provide financing, slowing asset growth and reducing income-generating opportunities (Abou Elseoud et al., 2020).

Furthermore, rising inflation erodes purchasing power and reduces the real value of financial assets, which can weaken the quality of Islamic banks' asset portfolios. Empirical evidence from Rahmalia et al. (2022), Zuhdi et al. (2024), and Torki et al. (2020) shows that sustained inflation can negatively affect asset values and financing performance in Islamic banks. This impact is particularly significant for long-term Shariah-compliant contracts such as *murabahah* and *ijarah*, where profit margins and rental rates are fixed at the contract's inception and cannot be easily adjusted in response to inflationary pressures. As a result, inflation increases the risk of lower real returns and asset–liability mismatches, potentially affecting banks' financial resilience (Rosyadah et al., 2020).

In the broader macroeconomic context, prolonged inflation may prompt monetary authorities to adopt tighter monetary policies by raising benchmark interest rates, which can indirectly affect Islamic banks operating within a dual banking system (Hasmad & Alosman, 2022). Although Islamic banks do not charge interest, increases in benchmark rates can shape depositor expectations regarding returns and intensify withdrawal pressures, particularly when conventional banks offer more attractive interest-based returns (Hidayat et al., 2020; Djelassi & Boukhatem, 2024). These dynamics may also affect the competitive position of Islamic banks relative to conventional institutions, influencing deposit mobilization and funding stability (Nouman et al., 2022; Possumah & Ahmat, 2021). Consequently, persistent inflation not only undermines asset stability but also amplifies operational and funding risks, posing challenges to the long-term sustainability and growth of Islamic banking institutions.

GDP per Capita

The increase in GDP per capita indicates economic growth that can enlarge the customer base of Islamic banks and increase the demand for financing. Baita et al. (2024) and Kismawadi (2023) shows that GDP per capita directly contributes to the growth of Islamic banks' assets. Another study Qomar et al. (2024) also corroborates these findings through evidence of increasing the profitability of Islamic banks in line with GDP growth. Empirical evidence further supports the role of GDP per capita as a key macroeconomic indicator influencing the performance and market share of Islamic banking. Frihatni et al. (2023) find that rising GDP per capita leads to higher household income, which increases saving capacity and, in turn, expands deposits within Islamic banks. This growth in savings enhances bank liquidity and contributes positively to profitability. These findings are consistent with earlier studies by Utami (2025), Yousefi Nejad et al. (2024), and Istan and Fahlevi (2020) all of which document a significant positive relationship between GDP growth and the market share of Islamic banks. Higher GDP reflects increased production and a faster circulation of goods and services, creating greater demand for financial intermediation. Utami (2025) shows that GDP per capita has a positive and statistically significant relationship with Islamic banking assets, where a 1% increase in income per capita leads to an estimated 0.75% increase in total assets, highlighting the role of consumer purchasing power.

In this context, Islamic banks play a vital intermediary role by mobilizing savings and channeling funds into Shariah-compliant financing, thereby supporting economic activity while simultaneously strengthening their asset base, profitability, and market position (Naser et al., 2024; Mankiw, 2019). The combination of increased deposits and higher financing activity allows Islamic banks to earn more returns on their assets. This is reflected in a higher ROA because the bank is effectively generating more profit relative to the size of its assets (Baita et al., 2024; Kismawadi, 2023; Istan & Fahlevi, 2020).

Moreover, GDP growth also improves the competitive position of Islamic banks within dual banking systems by supporting long-term asset accumulation and market share expansion. As economic productivity increases, demand rises for Shariah-compliant financing products such as murabahah, ijarah, and musharakah, especially among households and businesses seeking ethical and stable financial solutions (Frihatni et al., 2023; Yousefi Nejad et al., 2024). Higher economic activity further reduces credit risk by improving borrowers' repayment capacity, thereby supporting asset quality and profitability (Istan & Fahlevi, 2020). Taken together, these dynamics suggest that GDP per capita is not only a driver of Islamic banks' growth in size and profitability, but also a key factor in reinforcing their role as stable and resilient financial intermediaries within the broader economic system.

Method

The research approach used is a quantitative approach by applying a panel data regression model. This model is considered suitable because it is able to combine cross-section and time-series information. The equation of the model used is formulated as follows with its explanation of measurement in Table 1.

$$LOG_ASSET_{it} = \beta_0 + \beta_1 IR_{it} + \beta_2 INF_{it} + \beta_3 LOG_GDPPC_{it} + \mu_i + \varepsilon_{it} \text{.....(1)}$$

Table 1 Variable Measurement

Variable Type	Variable Name	Unit	Symbol
Dependen variable	Total islamic banking assets	Billion USD, transformed into logarithmic form (Log total islamic banking asset) to normalize the distribution and facilitate elasticity interpretation	LOG_ASSET_{it}
Independent variable	Interest rate	%	IR_{it}
	Inflation	%	INF_{it}
	GDP per capita	Million USD, transformed into logarithmic form (Log GDPPC) to normalize the distribution and facilitate elasticity interpretation	LOG_GDPPC_{it}
Parameter	Intercept (constant term)	-	β_0
	Regression coefficients	-	β_1, β_2, β_3
REM Error Components	Individual-specific error component (unobserved individual heterogeneity)	-	μ_i
	Combined error component (idiosyncratic error)	-	ϵ_{it}

Data

This study uses secondary data obtained from reliable and relevant sources. Islamic banking performance data is taken from the The Statistical, Economic, and Soscial Research and Training Centre for Islamic Countries (SESRIC). Meanwhile, data on macroeconomic indicators such as interest rates, inflation, and GDP per capita are sourced from World Bank Open Data. The data used covers a two-year time period 2021-2025.

Sample and Procedure

The population of this study includes countries with significant Islamic banking sectors in the Asian region. The sampling technique used is purposive sampling, where the country has the total Islamic banking assets in the 2021–2025 period and the country is located in the Asia region. Based on these criteria, nine sample countries were obtained, namely: Bangladesh, Brunei, Indonesia, Kuwait, Malaysia, Qatar, Pakistan, Oman, Turkiye, and United Arab Emirates. Qatar, Pakistan, Oman, Turkiye, and United Arab Emirates. The research analysis unit is country-level with a five-year observation period (2021-2025). Thus, the total number of observations in this panel data is 50 (10 countries × 5 years). Data is collected by recording and compiling annual secondary data from official sources for each variable and each country included in the sample.

Data Analysis

To analyze the influence of interest rates (IR), inflation (INF), and the logarithm of GDP per capita (Log_GDPPC) on the logarithm total Islamic banking assets (Log_ASSET), panel data regression was used. This model allows for the combination of cross-country and time information, as well as controlling for unobserved heterogeneity. The analysis was carried out using the Random Effect Model (REM), after going through a series of tests to determine the best model, namely the Chow Test and the Hausman Test.

The Chow test (Table 2) shows Prob (F) = 0.000 then the FEM model is better than the CEM model. Hausman's test shows that Prob(Chi-square) = 0.968 then the REM model is better than the FEM model. The LM test shows Prob(Both) = 0.0000 then the REM model is better than the CEM model. Thus, the best model used is the Random Effect Model (REM).

REM provides an efficient estimator by assuming that individual specific effects are random and do not correlate with independent variables, which can lead to more precise parameter estimates compared to Fixed Effect Models (FEM) (Widarti, 2025). This is especially useful in cases where the number of cross-sectional units is large, and the time dimension is small, as it avoids the loss of the degree of freedom associated with FEM (Das, 2023). REM effectively captures unobserved heterogeneity by modeling it as part of the error term, which can lead to more accurate modeling of the underlying structure of the data (Falah et al., 2016). This model is suitable for datasets where unobserved effects are assumed to be random and uncorrelated with the regressor, allowing generalizations outside the sample (Utami, 2025).

REM has proven to be the best model for different types of data, such as Human Development Index data and energy sales estimates, due to its flexibility in accommodating individual effects and providing a closer fit to the data (Filgrima & Achmad, 2022). It is also advantageous in simultaneous equation models, where it can effectively model the interdependent relationships between variables (Falah et al., 2016). While REM offers significant advantages, it is important to consider its assumptions carefully. The assumption that individual effects do not correlate with regressors may not always apply, potentially leading to biased estimates. In such cases, alternative models such as Fixed Effects Models or General Estimation Equations may be more appropriate, depending on the specific characteristics of the dataset and the research objectives (Das, 2023).

Results

Based on the results presented in Table 3, the probability value associated with IR is 0.003, which is below the threshold of 0.05. This finding indicates that IR possesses a statistically significant effect on LOG_ASSET. In contrast, the probability value of INF is 0.147, which exceeds 0.05. This observation suggests that INF does not exert a statistically significant effect on LOG_ASSET. Additionally, the probability value for LOG_GDPPC is 0.290, which is also greater than 0.05. This finding indicates that LOG_GDPPC does not significantly impact LOG_ASSET. The estimation results derived from the Random Effects Model indicate that the probability value of the F-statistic is 0.003, which is less than the 5% significance threshold (0.05).

Table 2 Model Selection Test Results

Model Test	Result		
Chow Test	Prob(F) 0.000		
Hausman Test	Prob(Chi-Square) 0.968		
LM Test	Cross-section 0.000	Time 0.107	Both 0.000

Source: Eviews (2026)

This analysis reveals that the independent variables IR, INF, and LOG_GDPPC in unison significantly impact LOG_ASSET. Consequently, the regression model is deemed suitable and adequate for further analytical pursuits. With a coefficient of determination (R^2) of 0.263713, it suggests that nearly 26.37% of the fluctuations in LOG_ASSET can be attributed to the changes in IR, INF, and LOG_GDPCC, leaving 73.63% impacted by additional factors outside the model's scope. Based on the estimated results, the panel data regression model with the Random Effect approach can be written as follows:

$$LOG_ASSET_{i,t} = 7.934 - 0.122*IR_{i,t} + 0.004*IF_{i,t} + 0.308*LOG_GDPCC_{i,t} + [CX=R] \ldots\ldots\ldots (2)$$

Estimated regression model reveals that the constant value of 7.934 signifies the anticipated value of $LOG_ASSET_{i,t}$ when all independent variables are held constant at zero. The regression coefficient concerning $IR_{i,t}$ is -0.122, suggesting that elevating $IR_{i,t}$ by one unit will result in a reduction of $LOG_ASSET_{i,t}$ by 0.122 units, all things considered. Given that the dependent variable is expressed in logarithmic terms, this indicates that an increment of one unit in $IR_{i,t}$ will correspond to an approximate reduction of 12.18% in $LOG_ASSET_{i,t}$. Consequently, $IR_{i,t}$ exerts a negative and statistically significant influence on $LOG_ASSET_{i,t}$. Conversely, while the coefficient for $IF_{i,t}$ is positive (0.004), its effect cannot be subjected to further interpretation due to its lack of statistical significance. The coefficient for $LOG_ASSET_{i,t}$ is 0.308. Since both the dependent and independent variables are represented in logarithmic form, this coefficient signifies elasticity. This implies that a 1% rise in $GDPPC_{i,t}$ would result in an increase in $LOG_ASSET_{i,t}$ by approximately 0.308%, ceteris paribus. Still, as the variable does not show statistical significance, this association does not yield a firm ground for establishing clear conclusions.

Discussions

Islamic banking assets are influenced by various macroeconomic factors, which can have both positive and negative impacts on their growth and performance. These factors include GDP growth, inflation, interest rates, and other economic indicators. Understanding these influences is critical for policymakers and financial institutions aiming to drive the growth of Islamic banking.

As researched by Kristianingsih et al. (2022) interest rates, especially the Bank of Indonesia's Rate in Indonesia, have a negative and insignificant effect on Islamic banking assets. The impact of inflation on Islamic banking assets varies by region. In Indonesia, inflation has a positive but insignificant effect on the total assets of Islamic banks (Zaenuri et al., 2025). GDP growth has proven to have a diverse impact on Islamic banking assets. In Indonesia, GDP was found to have a negative and insignificant effect on the total assets of Islamic banks both in the short and long term (Utami, 2025).

Furthermore, research by Nouman et al. (2022) in Pakistan reveal that interest rate volatility has a significant long-term and short-term relationship with the financing activities of Islamic banks, indicating strong co-movement and convergence between interest rate fluctuations and Islamic banking financing. This suggests that changes in conventional interest rates are closely followed by adjustments in Islamic bank financing behavior over time. Although Islamic banks operate under Shariah principles that prohibit interest (*riba*), their integration within a dual banking system exposes them indirectly to interest rate movements. In practice, many Islamic financing contracts, such as *murabahah* and *ijarah*, use conventional interest rates as benchmarks for determining profit margins and rental rates. As a result, volatility in interest rates translates into uncertainty in expected returns, making Islamic banks vulnerable to rate-of-return risk. However, inflation is inversely proportional to the growth of Islamic banks, suggesting that higher inflation rates can hamper asset growth. On the other hand, GDP growth positively affects the development of Islamic banking. In Pakistan, the increase in money supply and worker remittances contributed positively and significantly to the growth of Islamic banking assets. This shows that liquidity and external financial inflows are beneficial for asset expansion.

Table 3 Significance Testing Result

Variable	Probability Value
C	0.017
IR	0.003
INF	0.147
LOG_ASSET	0.290
Prob (F-statistic)	0.003
R-squared	0.264

Notes: IR= Interest Rate; INF= Inflation; LOG_ASSET= Total Islamic Bank Assets

Source: Eviews (2026)

While these macroeconomic factors play an important role, it is important to consider the broader economic context and regional differences. For example, the impact of foreign direct investment and public debt growth on the performance of Islamic banking can vary, as seen in Jordan, where these factors affect performance differently (Al Sharif, 2023). Understanding these nuances is essential to develop effective strategies to increase the growth of Islamic banking assets.

Macroeconomic factors that affect total Islamic banking assets, as identified in this study, include GDP, Inflation, and BI Rate. The findings show that GDP and Bank of Indonesia's Rate have a negative and insignificant effect on total Islamic banking assets, while inflation has a positive but insignificant effect. This shows that although these macroeconomic variables are relevant, their impact on the growth of Islamic banking assets is not statistically significant (Kristianingsih et al., 2022).

Examples of macroeconomic factors that affect the total assets of Islamic banking include economic growth, public debt growth, inflation, foreign direct investment, and balance of payments. However, the study did not find a statistically significant relationship between these macroeconomic factors and the performance of Islamic banks, as measured by total assets. Nonetheless, it suggests that expansionary fiscal and monetary policies can improve the performance of Islamic banks, even amid challenges such as high inflation and public debt (Al Sharif, 2023).

Finally, macroeconomic factors that affect the total assets of Islamic banking include GDP, Muslim population, money supply, interest rates, inflation rate, total savings, and remittances. The study found that GDP growth, Muslim population, money supply, and remittances positively influenced the growth of Islamic banking, while interest rates, savings, and inflation had an inverse relationship with it. These factors collectively impact the financial structure and dynamics of the Islamic banking market in Pakistan (Zahid & Basit, 2018).

Conclusion

The research findings indicate that interest rate has a negative and statistically significant effect on the growth of total Islamic banking assets, meaning that an increase in interest rate leads to a decrease in Islamic banking assets. This study shows that changes in interest rate are crucial for influencing asset trends, with a one-unit increase in interest rate resulting in approximately a 12.18 percent decline in Islamic banking assets, assuming other factors remain constant. In contrast, inflation has a positive but statistically insignificant effect, and GDP per capita also shows a positive but statistically insignificant influence on Islamic banking assets, suggesting that fluctuations in these two macroeconomic variables have not been strong enough to significantly drive asset growth during the observed period.

At the same time, the three independent variables collectively exert a statistically significant impact on Islamic banking assets, as indicated by the F-statistic probability value of 0.003, which is below the 5 percent significance level. However, the coefficient of determination (R^2) of 0.264 indicates that only about 26.37 percent of the variation in Islamic banking assets can be explained by all independent variables, while the remaining 73.63 percent is influenced by factors outside the model. These results show that, although macroeconomic variables together help explain the growth of Islamic banking assets, their individual effects are limited, with only interest rate being statistically significant. This highlights the need to include additional structural, institutional, and industry-specific factors to better understand the influences shaping the evolution of Islamic banking assets.

Recommendation for Future Research

Future research should extend the observation period to better understand the long-term effects of macroeconomic variables on the growth of Islamic banking assets. Additionally, incorporating external variables such as exchange rates, money supply, trade openness, global monetary policy, and Islamic financial stability indices can strengthen the analysis. More advanced dynamic panel methods, like non-linear models, cointegration analysis, or the Generalized Method of Moments (GMM), are also recommended to more accurately determine causal relationships and dynamic effects between countries over time. Comparing countries with single and multiple banking systems can also offer deeper insights into the structural differences in how Islamic banking responds to macroeconomic conditions.

Managerial Implication

These findings offer significant implications for regulators, banking managers, and monetary policymakers. Regulators should strengthen macroprudential policies that promote the stability of Islamic banking assets by developing monetary tools aligned with sharia principles. Islamic financial institutions must improve liquidity risk management strategies and diversify their financing portfolios to sustain asset resilience. They should also enhance their profit-and-loss sharing, low-cost fund base to stay competitive and resilient against global interest rate changes. Meanwhile, national policymakers are encouraged to promote cross-sectoral collaboration and fiscal incentives for sharia-based productive financing to expand Islamic financial inclusion. Implementing these measures can make the growth of Islamic banking assets in the Asian region more stable, adaptable, and sustainable amid global economic changes.

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Conflict of Interest

The author(s) declare no conflict of interest. The founders had no role in the design of the study, the collection, analysis, or interpretation of data, the writing of the manuscript, or the decision to publish the results.