Identifying Measurable Impact of Islamic Banking on the Indonesian Economy

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Article Info	Abstract
	Introduction: This study investigates the short- and long-term relationship between Islamic banking development and Indonesia's economic growth. Despite Indonesia operating a dual banking system, empirical research on Islamic finance and growth remains limited. Understanding this connection is crucial for leveraging Islamic finance as a driver of sustainable development. **Research Methods:** Using quarterly data from 2015 to 2024, the study examines the dynamic links among Islamic financing, GDP, and gross fixed capital formation (GFCF). The ARDL bounds testing approach, cointegration analysis, and error correction model (ECM) are employed to identify both short- and long-run relationships. Model stability is validated using CUSUM and CUSUMSQ tests. **Results:** The results reveal a strong long-term relationship between Islamic financial development, capital accumulation, and economic growth, supporting the supply-leading hypothesis. Short-term effects are positive but statistically insignificant. Model stability tests confirm structural consistency over time. **Conclusion:** These findings emphasize the potential of Islamic finance to promote sustainable economic development and provide guidance for policymakers seeking to enhance financial inclusion and resilience.

INTRODUCTION

The connection between economic growth and the financial sector is one of the main problems of development economics. A variety of various theories have been used to explain the dynamics of this relationship, some of them being the supply-leading hypothesis, which argues that the financial sector is the major driver of economic growth (Patrick, 1966) and the demand-following hypothesis, which argues that the real sector is the major driver of financial system growth (Hermes & Lensink, 1996). In fact, a number of empirical studies indicate that the two directions are causal (Levine, Loayza, & Beck, 2000). Empirical research has placed much emphasis on this relationship in the last several decades. As suggested by Levine (Levine, 2005), a well-developed financial system is necessary in terms of encouraging economic growth as it becomes easy to mobilize savings, allocate resources, oversee businesses, handle risk, and exchange goods and services. Most of the early research, starting with Goldsmith (1969) provided the empirical basis of the studying of the causal relationship between finance and economic growth.

Patrick (1966) also came up with two main assumptions namely the supply-leading and the demand-following assumptions. Supply-leading implies that the growth of the financial sector drives economic growth and demand-following implies that economic growth drives demand of more developed financial services. Empirical research like Rioja and Valev (2004) which compared 74 countries of varied income levels has determined the heterogeneity in effects, financial development was significant in growth of middle-income countries, but less evident in low-income countries. Also, Levine, Loayza and Beck (2000) showed through dynamic panel GMM estimation that the indicators of financial development including the measures of liquidity in the financial systems and ratio of the private sector credits in the countries are significant contributors to the difference in the growth across the nations. These results support the fact that financial development is an important driver of economic growth.

Meanwhile, some of the researchers suggest that finance-growth relationship is not as straightforward as a one-directional causality relationship. Arestis, Demetriades, and Luintel (2001) emphasize that it is not enough to consider the banking or capital market, but a dualistic approach is required due to the fact that the countries differ in the way these institutions contribute to the growth. Recent studies indicate that the association relies on the conditions of structures, development levels, and financial systems composition (Cull, Demirgüç-Kunt, & Morduch, 2014).

Although this is growing literature in the world, majority of the studies are based on traditional financial systems. Quantitative, empirical or econometric studies undertaken under the Islamic finance framework are still few, and the ones that do exist tend to be studies involving the relationship between Islamic banking development and macroeconomic growth. This is a major disconnection since Islamic finance is conducted under unique values, profit-and-loss

sharing, the usury, and real asset-backed dealings, which means that its avenues of influence might not be the same as traditional finance.

There is still a paucity of empirical studies in Islamic finance. An example is where Abduh and Chowdhury (2012) affirmed the supply-leading hypothesis in Bangladesh and Indonesia and they found that there were long term relations between Islamic banking growth and economic growth. Meanwhile, Yusof and Bahlous (2013) found the bidirectional causality in the countries of the Middle East and North Africa which can suggest that the system of Islamic finance can act differently in response to institutional formations. In a microeconomic scale, Hasan, Wachtel, and Zhou (2009) indicated that Islamic banking may positively affect the growth of SMEs in the financially marginalized societies implying its possible effects on inclusive development.

The theoretical and empirical context is particularly applicable in Indonesia, which is home to the largest number of Muslims in the world, and the most rapidly expanding Islamic banking sectors. There is an increased growth of the Islamic banking industry in Indonesia. According to the Financial Services Authority (2023), the financial services industry is experiencing an annual growth of 13.8% in assets of national Islamic banking with IDR 265 trillion in 2014 that experienced an increase to IDR 837 trillion in 2023. Nevertheless, the market share of Islamic banking in Indonesia is relatively small at 7.5% despite the robust asset growth (OJK, 2023). This provides both a challenge and an opportunity: although the industry has a good momentum, it is highly fragmented with the greater economy, and whether it has a real macroeconomic influence should be questioned.

This is necessary to assess the role of Islamic banks in the overall economic development of Indonesia and how the growth of these banks will impact the macroeconomic performance both in the short-term and long-term (Ascarya & Yumanita, 2022) (Rusydiana, 2018). However, there are few studies that have studied the co integration between Islamic financial development and national economic growth in Indonesia especially in the short and long term. Still less have used methodologies that can use the limited time-series data and dynamic adaptations. The Autoregressive Distributed Lag (ARDL) Bounds Testing Approach is just one such method which especially is appropriate in small samples, and gives a solid understanding of long-term relations, yet is not extensively used in the studies of Islamic finance.

It is worth noting that to understand how the situation of Islamic financial development in Indonesia evolved it is necessary to refer to the evolution of the country in the past. Islamic banking in Indonesia started with the foundation of Bank Muamalat Indonesia in 1991, and has expanded a lot following the financial crisis of 1997-1998 by the promotion of diversification of financial system that favored the growth of Islamic banking (Ascarya & Yumanita, 2007). This was a significant milestone when PT Bank Susila Bakti was converted to Bank Syariah Mandiri in 1999. Since that, the growth has improved with the expansion of the Islamic commercial banks (BUS), the Islamic business units (UUS) and the Islamic rural banks (BPRS). Indonesia has 12 BUS, 20 UUS, and more than 160 BPRS today, which is both indicative of institutional growth and demand.

Governmental policies, including KNEKS and Masterplan of the Indonesian Islamic Financial Architecture (MAKSI), have been important in the systematic and quantifiable growth of the industry (Komite Nasional Ekonomi dan Keuangan Syariah (KNEKS), 2021). Legitimacy and clarity of regulation are also highly supported by the legal base particularly the law number 21 of 2008 on Sharia banking. Growth is also driven by demand-side factors, especially increased financial literacy of MSMEs and younger demographics, due to increasing Islamic financial literacy (Bank Indonesia, 2020).

The financial performance indicators also reveal that the Islamic banks have recorded a good health. Normal financing-to-deposit ratios (FDR) are typically in the range of 80 and 100 (Bank Indonesia, 2022), whereas non-performing financing (NPF) is usually around 3-4 (as compared to conventional banking non-performing loans of 5-7) (OJK, 2022). Islamic banking is also found to be positively correlated with GDP growth associated with financing the real sector, and empowering the MSMEs (Hosen and Muhari, 2019).

Islamic finance is now likely to become a strategic instrument to improve resiliency, inclusion, and sustainable development due to the projected stable economic growth of 5-6% annually in Indonesia (World Bank, 2023). Nonetheless, empirical studies on the relevance of Islamic financial development in fact linking with macroeconomic growth in Indonesia are few and inconclusive in spite of the rapid growth and economic potential of the industry.

This study seeks to address existing research gaps—namely the limited examination of short- and long-run cointegration between Islamic finance and national economic growth, the insufficient application of ARDL and ECM models in the Indonesian context, and the need for country-specific analyses of dual financial systems—by investigating the correlation between Indonesia's economic growth and the evolution of Islamic finance in both the short and long term, as a basis for clarifying the actual role of the Islamic financial system in supporting the national economy.

The research has these objectives and contributes to the work of Abduh & Azmi Omar (2012) by making several significant improvements. Firstly, it applies the ARDL and the error correction model (ECM) which are quite rare in the literature of Islamic finance, particularly in developing nations. Second, it narrows down to Indonesia with a particular dual banking structure and a rapidly growing market in the Islamic finance market of the world. Third, it has a theoretical and practical contribution since it evaluates the possibility of Islamic finance as an effective channel of macroeconomic growth in those countries where Islamic and conventional financial systems are run in parallel.

RESEARCH METHOD
Data

Together with two variables that represent the real economic sector, namely GDP [ln(gdp)] and gross fixed capital formation [ln(gfcf)], this study used quarterly time series data for

the variable total financing of Islamic banks [ln(fin)] as a representation of the Islamic finance sector. The IMF's International Financial Statistics and Bank Indonesia's monthly statistical report on Islamic banking provided the time series data, which spans the first quarter of 2015 to the fourth quarter of 2024. The following is descriptive data resulted from this study.

Table 1. Descriptive Statistics
Source: Processed Data, 2025

	LNFIN	LNGDP	LNGFCF
Mean	12.34424	21.71497	20.94230
Median	12.31625	21.72432	20.95736
Maximum	12.92099	21.91336	21.21920
Minimum	11.89348	21.51419	20.63545
Std. Dev.	0.307508	0.110882	0.166950
Skewness	0.319605	-0.029584	-0.103231
Kurtosis	2.021344	2.111357	2.033249
Jarque-Bera	2.277261	1.321979	1.628724
Probability	0.320257	0.516340	0.442922
Sum	493.7697	868.5988	837.6920
Sum Sq. Dev.	3.687884	0.479500	1.087023
Observations	40	40	40

One often used statistic to show a nation's income level over a given time period is the gross domestic product, or GDP. GDP is typically regarded as the primary variable that represents economic growth in studies on the connection between the financial sector and economic expansion. Because it is an economic indicator that measures net new investments made by businesses in the form of domestic fixed assets during a specific accounting period, gross fixed capital formation, or GFCF, is used as a representation of investment. Below are graphs from each variable.
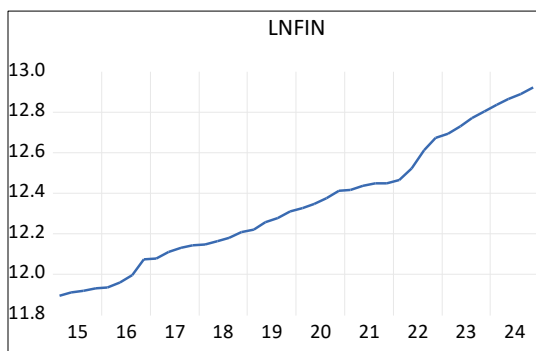
Figure 2. Graph of Variable Lnfin
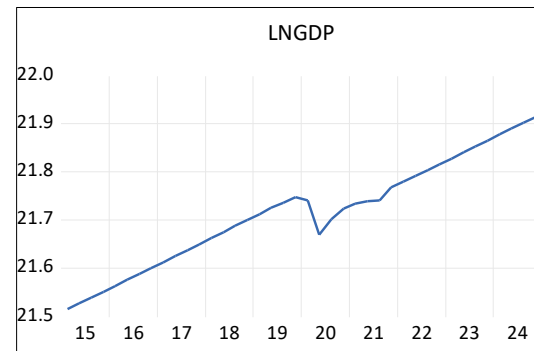Source: Processed Data, 2025

Figure 1. Graph of Variable Lngdp
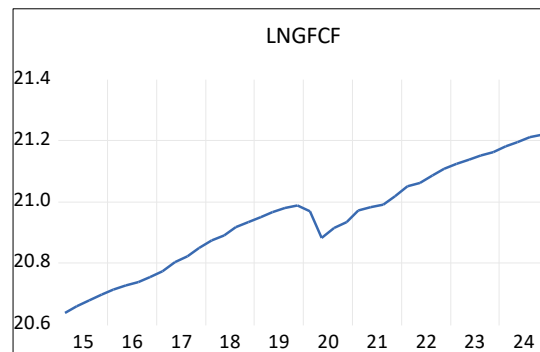Source: Processed Data, 2025

Figure 3. Graph of Variable Lngfcf
Source: Processed Data, 2025

Based on quarterly data from 2015Q1 to 2024Q4 (a total of 37 observations), the VAR model involving the variables LNFIN, LNGDP, and LNGFCF has an ideal lag length of lag 1, according to the output of the VAR Lag Order Selection Criteria. The majority of the selection criteria, such as the LR (Likelihood Ratio), FPE (Final Prediction Error), AIC (Akaike Information Criterion), SC (Schwarz Criterion), and HQ (Hannan-Quinn Criterion), support this by designating lag 1 with an asterisk (*), signifying that it is the recommended option. According to this, it is advised to use a single lag for VAR estimation since it offers the best trade-off between model fit and complexity.

Table 2. Lag Length Criteria
Source: Processed Data, 2025

VAR Lag Order Selection Criteria
Endogenous variables: LNFIN LNGDP LNGFCF
Exogenous variables: C
Date: 06/22/25   Time: 05:18
Sample: 2015Q1 2024Q4
Included observations: 37

Lag	LogL	LR	FPE	AIC	SC	HQ
0	202.4648	NA	4.17e-09	-10.78188	-10.65127	-10.73584
1	336.8875	239.7809*	4.75e-12*	-17.56148*	-17.03902*	-17.37729*
2	341.6785	7.769206	6.03e-12	-17.33397	-16.41967	-17.01164
3	346.7254	7.365833	7.68e-12	-17.12029	-15.81414	-16.65981

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

Following the collection of all required data, the Augmented Dickey-Fuller (ADF) and Phillips-Perron (P-P) methods are used to perform a unit root test on each variable (refer to Table 2). The unit root test is still carried out to make sure the ARDL model is suitable for use, even though the ARDL approach does not call for testing for the stationarity prerequisite. Testing using the ARDL approach can proceed because the results in Table 2 show that a combination of variables are stationary at level I(0) and at first difference I(1).

Table 3. Unit Root Test

Source: Processed Data, 2025

Variable	Augmented Dickey-Fuller		Phillips-Peron	
	I(0)	I(1)	I(0)	I(1)
Lnfin	0.9954	0.0022*	0.9986	0.0033*
Lngdp	0.8880	0.0000**	0.8960	0.0000**
Lngfcf	0.8003	0.0002**	0.8022	0.0003**

Note: Significant at : * 5 and ** 1 percent levels

ARDL and ECM

Regression elements on past values of the dependent variable (autoregressive) and present and past values of the independent variables (distributed lag) are combined in the ARDL (Autoregressive Distributed Lag) model, an econometric technique. Without first confirming that all variables are stationary at the same level, this approach makes it possible to analyze long-term relationships between variables. The primary benefit of the ARDL approach is that it can be applied to time series data that includes both I(0) and I(1) variables. This helps to prevent errors caused by the shortcomings of unit root tests, which are frequently insufficiently robust in small samples (Pesaran & Shin, 1999). As a result, ARDL is now a versatile approach that is frequently employed in financial and economic research, particularly in situations where there are uncertainties about the degree of variable integration.

The ARDL approach to cointegration is implemented by estimating the conditional error correction (EC) model of ARDL, which does not require prior knowledge about the direction of long-term relationships among variables. Three primary model forms are used in this study.

$$\Delta lngdp_t = \alpha_0 + \sum_{i=1}^{\rho} \Psi_i \Delta lngdp_{t-i} + \sum_{i=0}^{\rho} \emptyset_i \Delta lnfin_{t-i} + \delta_1 lngdp_{t-i} + \delta_2 lnfin_{t-i} + v_t \quad (1)$$

$$\Delta lnfin_t = \alpha_0 + \sum_{i=1}^{\rho} \omega \Delta lnfin_{t-i} + \sum_{i=0}^{q} \emptyset_i \Delta lngdp_{t-i} + \delta_1 lnfin_{t-i} + \delta_2 lngdp_{t-i} + v_t \quad (2)$$

$$\Delta lngfcf_t = \alpha_0 + \sum_{i=1}^{\rho} \Theta_i \Delta lngfcf_{t-i} + \sum_{i=0}^{\rho} \Omega_i \Delta lnfin_{t-i} + \delta_1 lngfcf_{t-i} + \delta_2 lnfin_{t-i} + v_t \quad (3)$$

Where:

Lngdp : natural logarithm of real gdp

Lnfin   : natural logarithm of Islamic banks' total financing

Lngfcf : natural logarithm of gross fixed capital formation

One of the main methods for determining whether there is a long-term relationship between variables is the F statistical test. This test also aids in identifying which variable in the model should be normalized if cointegration is detected. To determine whether the lagged levels of the variables in the unrestricted conditional error correction model are significant, the F test is used within the framework of the extended Dickey-Fuller regression. Following confirmation of the long-term relationship, the pertinent equations are estimated using an ARDL model of order (p, q) (Harris & Sollis, 2003; Odhiambo, 2009).

$$lngdp_t = \alpha_0 + \sum_{i=1}^{\rho} \alpha_1 lngdp_{t-i} + \sum_{i=0}^{q} \alpha_2 lnfin_{t-i} + \omega_t \text{ (4)}$$

$$lnfin_t = \alpha_0 + \sum_{i=1}^{\rho} \alpha_1 lnfin_{t-i} + \sum_{i=0}^{q} \alpha_2 lngdp_{t-i} + \omega_t \text{ (5)}$$

$$lngfcf_t = \alpha_0 + \sum_{i=1}^{\rho} \alpha_1 lngfcf_{t-i} + \sum_{i=0}^{q} \alpha_2 lnfin_{t-i} + \omega_t \text{ (6)}$$

Prior to estimating the chosen model using the Ordinary Least Squares (OLS) method, the number of lags in the ARDL model is determined using the Akaike Information Criterion (AIC) and the Bayesian Schwarz Criterion (SBC). Following the initial estimation, the lag selection is verified again by analyzing the residual correlogram from the unrestricted VAR using the chosen lags and evaluating the lag length criteria. The ideal lag is the one that yields the lowest value on the AIC-SBC and is backed by the findings of the lag length criteria and the insignificance of the residual correlogram probabilities in the unrestricted VAR.

The ARDL approach yields effective and objective estimates, particularly in studies with small sample sizes, claim Blackburne and Frank (2007). Its simultaneous estimation of long-term and short-term components helps prevent autocorrelation problems and bias from omitted variables, which is another benefit. Furthermore, this approach makes it possible to distinguish clearly between the model's independent and dependent variables.

Short-term elasticity can also be obtained by building an Error Correction Model (ECM) in the manner described below, provided that cointegration is discovered in the ARDL equations (1) through (3):

$$\Delta lngdp_t = \beta_0 + \sum_{i=1}^{\rho} \beta_i \Delta lngdp_{t-i} + \sum_{i=0}^{\rho} \beta_2 \Delta lnfin_{t-i} + \Psi ECT_{t-1} + \vartheta_t \text{ (7)}$$

$$\Delta lnfin_t = \beta_0 + \sum_{i=1}^{\rho} \beta_i \Delta lnfin_{t-i} + \sum_{i=0}^{q} \beta_2 \Delta lngdp_{t-1} + \Psi ECT_{t-1} + \vartheta_t \text{ (8)}$$

$$\Delta lngfcf_t = \beta_0 + \sum_{i=1}^{\rho} \beta_i \Delta lngfcf_{t-i} + \sum_{i=0}^{\rho} \beta_2 \Delta lnfin_{t-i} + \Psi ECT_{t-1} + \vartheta_t \text{ (9)}$$

Where:
Δ : The first difference of the operator
β's   : Coefficients associated with the model's equilibrium's short-term dynamics
Ψ : Measures the speed of adjustment

An adaptive parameter that gauges transient departures from long-term equilibrium conditions is the error correction component with a lagged parameter, also known as the Error Correction Term or ECT. Variables may diverge in the short term, which will eventually impact the system's ability to reach equilibrium. Consequently, the existence of an error correction mechanism that returns these variables to their long-term relationship is demonstrated by the statistical significance of the ECT coefficient.

RESULT AND DISCUSSION

A Granger causality test was performed on the suggested variables prior to determining whether there was a long-term relationship between Islamic bank financing and these variables; the findings are shown in Table 3. The test's findings suggested a supply-side (supply-leading) one-way causal relationship between Islamic bank financing and GDP growth. An examination of the reciprocal relationship between Islamic financing and growth is still required, though, as shown by equations (1) and (2).

Estimating the long-term relationship as it is expressed in equations (1) through (3) is the next stage. The lowest values of the AIC and SBC criteria, lag length selection methods, and observations of the residual correlogram's insignificance from the unrestricted VAR are all used to determine the ideal number of lags. Based on these findings, one lag should be used for all equations.

Table 4. Granger Causality Test
Source: Processed Data, 2025

Null Hypothesis	F-Statistic	Probability
LNGDP does not Granger Cause LNFIN	0.61096	0.5489
LNFIN does not Granger Cause LNGDP	2.75740	0.0781 **
LNGFCF does not Granger Cause LNFIN	0.61668	0.5458
LNFIN does not Granger Cause GFCF	1.97756	0.1545

Note: Significant at: *5 percent level

Estimating the long-term relationship in equations (1)–(3) is the next stage. The ideal number of lags to include in the model is determined by combining the smallest value of AIC–SBC, the lag-length criteria technique, and observation towards the insignificant correlogram of residuals from unrestricted VAR. For Equation (1), the selected lag length is 1, and for Equations (2) and (3), it is 2. Table 4 shows the Wald-test computed F-statistics and the bound critical values proposed by Narayan (2004). For Equations (1) through (3), the corresponding computed F-statistics are 9.1638, 4.8458, and 4.8977.

Equation (1), with the restricted intercept and no trend specification, surpasses the upper bound critical value at the 1% significance level (5.58). Under the same specification, equations (2) and (3) also surpass the upper bound at the 5% significance level (4.16). Thus, there is

evidence of a long-term relationship between Indonesia's economic performance and Islamic financial development, rejecting the null hypothesis that there is no cointegration between the financing of Islamic banks and the variables examined at different levels of significance.

Table 5. F-Statistic of Cointegration Relationship and Bound Critical Values
Source: Processed Data, 2025

| | | | | Bound Critical Values | | | |
| | | | | Restricted Intercept and No Trend | | Restricted Intercept and Trend | |
Equation	Lag	F-statistic	Sig.level (%)	I(0)	I(1)	I(0)	I(1)
(1)	1	9.1638	1	4.94	5.58	8.74	9.63
			5	3.62	4.16	6.56	7.3
			10	3.02	3.51	5.59	6.26
(2)	2	4.8458	1	4.94	5.58	8.74	9.63
			5	3.62	4.16	6.56	7.3
			10	3.02	3.51	5.59	6.26
(3)	2	4.8977	1	4.94	5.58	8.74	9.63
			5	3.62	4.16	6.56	7.3
			10	3.02	3.51	5.59	6.26

As shown in Table 5, in equations (1) and (2), the variable of Islamic financing seems to be significant, and its sign is constant throughout the models. This consistency suggests that the coefficient should be positive—as both equations confirm—if Islamic financial development makes a substantial contribution to capital formation and economic growth. A positive correlation implies that the real sector's performance, especially GDP and gross fixed capital formation (GFCF), improves with the level of development of the Islamic financial system. As a result, the leading sectors in the growth process can be supported and maintained by the financial system.

However, as shown by the negligible GDP coefficient in equation (3), we do not find any compelling evidence that economic growth (GDP) eventually supports the development of Islamic finance. This suggests that although Islamic financial development seems to have a positive impact on capital formation and economic growth, the opposite relationship is not statistically significant. Accordingly, the long-run model suggests that the relationship between Indonesia's Islamic financial development and growth is unidirectional, with Islamic finance driving growth rather than bidirectional.

Table 6. Long-run Model
Source: Processed Data, 2025

	Dependent Variable		
	Lngdp	Lngfcf	Lnfin
Coefficient of Lnfin	0.0803 (2.396)**	0.0887 (2.084)**	-
Coefficient of Lngdp	-	-	0.1719 (1.243)

Note: Significant at 5 percent level

ECM-based causality analysis was performed for all three equations based on the cointegration test results; the results are shown in Table 6. In the Δlngdp and Δgfcf equations, the error correction term (ECT) coefficients are negative and statistically significant at the 5% and 10% levels, respectively. They are -0.2308 (0.0205) and -0.1495 (0.0598). This shows that there is at least one long-term causal relationship. The ECT coefficients' comparatively small magnitudes point to a gradual rate of adjustment toward long-term equilibrium.

Table 7. Error Correction Model
Source: Processed Data, 2025

		Δlngdp	Δlngfcf	Δlnfin
ECT_{t-1}		-0.2308 (0.0205)**	-01495 (0.0598)*	-0.0325 (0.5415)
Coefficient of Δlnfin		0.0731 (0.1162)	0.0475 (0.3045)	-
Coefficient of Δlngdp		-	-	0.1154 (0.6306)
Diagnostic Tests	F-serial LM	0.3356	1.2302	2.7958*
	F-ARCH test	0.0047	0.0210	1.8996
	F-White Het.	0.5565	0.3709	1.0399
	JB normal	859.1711**	629.6875**	24.6470**

Note: Significant at: *10, **5 percent levels

The idea that Islamic financial development may have a short-term positive impact on business activity and economic growth is further supported by the positive, albeit statistically insignificant, coefficients of Δlnfin in the Δlngdp and Δgfcf equations. In the meantime, the Δlngdp coefficient in the Δlnfin equation is likewise positive but statistically insignificant, suggesting a possible inverse relationship in which the growth of the economy could support the expansion of the Islamic banking industry.

The ECM was subjected to a number of diagnostic tests in order to confirm the traditional assumptions of the OLS model. At the 5% and 1% significance levels, the results in the Δlngdp and Δgfcf models do not indicate serial correlation, heteroskedasticity, or ARCH effects. Nonetheless, autocorrelation is present according to the Δlnfin model (F-serial LM = 2.7958, significant at the 10% level). The residuals are confirmed to be normally distributed by all models passing the Jarque-Bera normality test at the 5% level (Table 6).
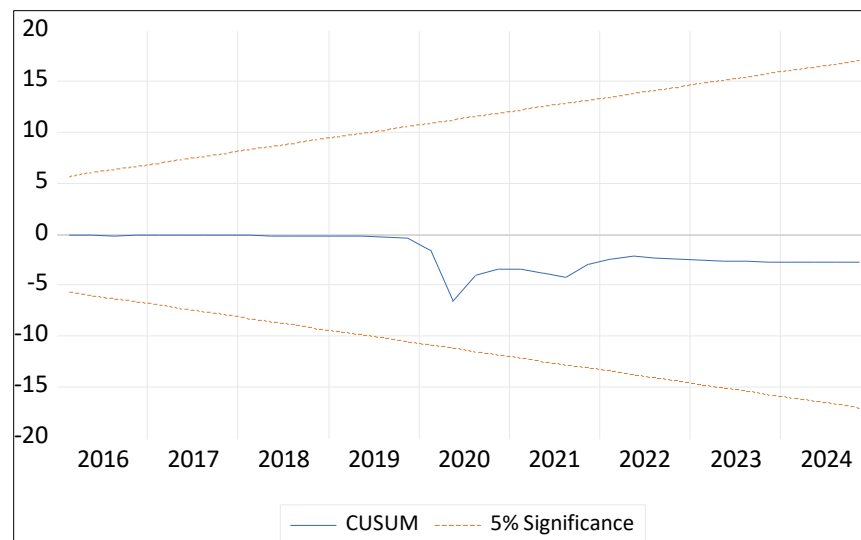
Figure 4. CUSUM Result
Source: Processed Data, 2025

To assess whether the estimated ARDL model retains structural stability over the observation period, the CUSUM (Cumulative Sum of Recursive Residuals) and CUSUM of Squares (CUSUMSQ) tests are applied as part of the stability diagnostics at the end of this study. The consistency of model parameters over time is one of the fundamental presumptions of the ARDL framework, which makes these tests crucial. The overall reliability of the study findings may be jeopardized if the model is structurally unstable, as this calls into question the validity of both the short-run and long-run estimates.
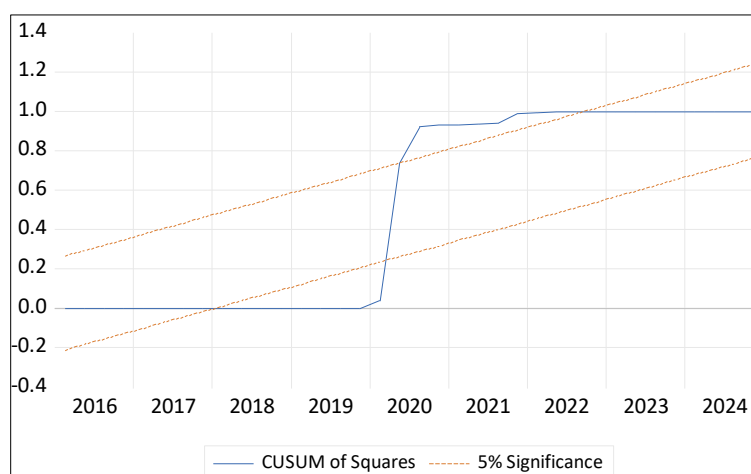

Figure 5. CUSUMSQ Result
Source: Processed Data, 2025

According to the results of the CUSUM test, the cumulative sum of the recursive residuals is within the 5% significance bounds, indicating that the parameters of the model remained

constant over the course of the sample. This demonstrates that the estimated coefficients are not impacted by any notable structural breaks. But according to the CUSUMSQ graph, the line just barely touches and crosses the upper 5% boundary. indicating a possible instability in the residuals' variance at a particular moment in time. This suggests the potential for brief shocks or variations in the error term throughout the study period, albeit not a serious one. Although the model is thought to be stable enough for inference overall, care should be taken when interpreting the findings, particularly for long-term projections.

CONCLUSION

The article analysed the dynamic interaction between growth of Islamic finance and the economy in Indonesia by using quarterly data between the year 2015 to 2024 based on ARDL and ECM methods. The results show that Islamic bank financing has a great/ positive impact on GDP and capital formation in the long-term corroborating the hypothesis of ample supply and showed no support to the fact that Islamic bank financing has an ample demand. This suggests the fact that the causality is not reciprocal because it is Islamic finance which triggers economic development. In spite of that, their short-term effect is not statistically significant, and the range of transition to long-run equilibrium is a gradual process. Stability tests ensure that the model is quite strong although it experiences slight variations throughout the sample period. Such findings indicate a strategic position into ensuring that Islamic finance is reinforced to ensure that inclusive and sustainable growth is extended to Indonesia.

The policymakers should aim to raise the market share of the sector, which is now less than 7.5 percent by establishing friendly policies plus building institutional capacity and utilizing digital processes besides legal reforms, such as special dispute resolution processes. Islamic finance can play a maximum role in the national development when it is related to a stable macroeconomic environment. Although this research topic relates to Indonesia, and assumes the use of a restricted number of macroeconomic factors, prospects of this type of study are to increase the scope by the cross-country comparison, the structural break models, and the complement variations like the financial inclusion, Shariah governance, and the quality of regulation. Also, sector wise contribution such as SME and microfinance financing might give more information on the long run on the picture of Islamic finance and growth of the economy.

REFERENCES

Abduh, M., & Chowdhury, N. (2012). Does Islamic banking matter for economic growth in Bangladesh? . *Journal of Islamic Economics, Banking and Finance, 8*(3), 104-113.

Amsden, A. (2001). *The Rise of "The Rest": Challenges to the West from Late-Industrializing Economies.* Oxford: Oxford University Press.

Arestis, P., Demetriades, P., & Luintel, K. (2001). Financial development and economic growth: the role of stock markets. *Journal of Money, Credit and Banking, 33*(1), 16–41.

Ascarya, & Yumanita, D. (2007). *Comparative Analysis of Islamic Bank Performance. Bank Indonesia Working Paper Series.* Jakarta: Bank Indonesia.

Ascarya, & Yumanita, D. (2022). *Pengembangan Perbankan Syariah di Indonesia: Peluang dan Tantangan.* Jakarta: Bank Indonesia.

Bank Indonesia. (2020). *Survei Nasional Literasi dan Inklusi Keuangan Syariah.* Jakarta: Bank Indonesia.

Bank Indonesia. (2022). *Laporan Perkembangan Perbankan Syariah.* Jakarta: Bank Indonesia.

Blackburne, E., & Frank, M. (2007). Estimation of nonstationary heterogeneous panels. *The Stata Journal, 7*(2), 197–208.

Boot, A., & Thakor, A. (2010). The accelerating integration of banks and markets and its implications for regulation. *Oxford Review of Economic Policy, 26*(3), 379–390.

Calderón, C., & Liu, L. (2003). The Direction of Causality between Financial Development and Economic Growth. *Journal of Development Economics, 72*(1), 321–334.

Cull, R., Demirgüç-Kunt, A., & Morduch, J. (2014). *Financial inclusion and development: Recent impact evidence. World Bank Policy Research Working Paper, No. 6988.* Washington DC.: World Bank.

Goldsmith, R. W. (1969). *Financial Structure and Development.* New Haven: Yale University Press.

Hasan, I., Wachtel, P., & Zhou, M. (2009). Institutional development, financial deepening and economic growth: Evidence from China. *Journal of Banking & Finance, 33*(1), 157–170.

Hermes, N., & Lensink, R. (1996). *Financial Development and Economic Growth: Theory and Experiences from Developing Countries.* London: Routledge.

Islamic Financial Services Board (IFSB). (2021). *Islamic Financial Services Industry Stability Report.* Kuala Lumpur, Malaysia: Islamic Financial Services Board (IFSB).

Komite Nasional Ekonomi dan Keuangan Syariah (KNEKS). (2021). *Masterplan Ekonomi Syariah Indonesia 2019–2024.* Jakarta: Komite Nasional Ekonomi dan Keuangan Syariah (KNEKS).

Levine, R. (1997). Financial Development and Economic Growth: Views and Agenda. *Journal of Economic Literature, 35*(2), 688–726.

Levine, R. (2005). Finance and Growth: Theory and Evidence. (P. A. (Eds.), Ed.) *Handbook of Economic Growth, 1*, 865–934.

Levine, R., Loayza, N., & Beck, T. (2000). Financial intermediation and growth: Causality and causes. *Journal of Monetary Economics, 46*(1), 31–77.

Odhiambo, N. M. (2009). Energy consumption and economic growth nexus in Tanzania: An ARDL bounds testing approach. *Energy Policy, 37*(2), 617–622.

OJK. (2022). *Statistik Perbankan Syariah Indonesia.* Jakarta: OJK.

OJK. (2023). *Statistik Perbankan Syariah 2023.* Jakarta: Otoritas Jasa Keuangan.

Otoritas Jasa Keuangan. (2023). *Snapshot Perbankan Syariah Indonesia 2023.* Jakarta: OJK.

Patrick, H. (1966). Financial development and economic growth in developing countries. *Economic Development and Cultural Change, 14*(2), 174-89.

Pesaran, M., & Shin, Y. (1999). An autoregressive distributed lag modelling approach to cointegration analysis. In S. Strom (Ed.), Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium. 371–413.

Rioja, F., & Valev, N. (2004). Finance and the sources of growth at various stages of economic development. *Economic Inquiry, 42*(1), 127–140.

Rusydiana, A. S. (2018). Analisis Perkembangan dan Tantangan Perbankan Syariah di Indonesia. *Jurnal Ekonomi dan Bisnis Islam*, 4(1), 1–15.

World Bank. (2023). *Indonesia Economic Prospects – Navigating Global Headwinds.* Jakarta: World Bank.

Yusof, R., & Bahlous, M. (2013). Islamic banking and economic growth in the GCC and Southeast Asia regions. *Journal of Islamic Accounting and Business Research, 4*(2), 151–172.