



ASSET ALLOCATION AND FINANCING INTENSITY IN A SHARIA-COMPLIANT BANK: EVIDENCE FROM JAIZ BANK PLC

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Abstract

This study examines the impact of asset allocation on financing intensity of Jaiz Bank Plc in Nigeria within the period of quarterly data from second quarter of 2016 to first quarter 2026. The study is a correlational research design which uses secondary data gathered from the published financial statements of Jaiz Bank Plc. Data analysis was done using Autoregressive Distributed Lag (ARDL) model. The results show that there is a long run equilibrium relationship between the variables. The Cash Holding Ratio in the long run has a significant negative effect on financing intensity, whereas the Equity Ratio has a significant positive effect. In contrast, the Investment Allocation Ratio and Deposit Ratio have negative, but not statistically significant, effects. The changes in the Investment Allocation Ratio and Equity Ratio have considerable impact on financing intensity in the short-term period, and the phenomenon of error correction term shows that the short-term shocks are quickly corrected by about 78.3% in the long run. The study concludes that strategic asset allocation is an important financial management tool that influences financing intensity in Jaiz Bank Plc. It recommends that the Bank must have an optimum cash holding policy, build up the equity base of the bank, review investment allocation policy on regular basis, and efficiently utilize the deposits of the customers to optimise financing activities and sustain financial stability in the long run without compromising liquidity and capital adequacy.

Keywords: financing intensity, investment allocation, deposit ratio, cash holding, equity ratio

1. Introduction

Islamic banking has become a significant part of the international financial sector, offering a medium for ethical financing, risk sharing and asset-backed transactions which are based on Shari'ah principles. Islamic banks have to manage their liquidity, investment, deposits, and capital in a balance that provides financing without contravening the Shari'ah requirements, unlike conventional banks. Therefore, the level of financing intensity is influenced by asset allocation decisions. The current evidence indicated that efficient capital allocation and capitalization promote its performance (Shehu & Sani, 2025) and that Shari'ah compliant firms have better investment efficiency as a result of their efficient internal capital allocation (Guizani & Abdalkrim, 2022).



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Likewise, it has been demonstrated that Murabahah and Sukuk financing have a positive effect on the profitability of Islamic banks while the impact of Ijarah financing is negligible (Abdullahi & Isyaku, 2025). But other studies have shown that financial structure decisions have mixed results. For example, financing mix improves firm performance at optimum ratio of debt and equity (Eseimieghan & Onuorah, 2025), while high level of debt negatively affects cash holdings of the firm (Okeke et al., 2021). Similarly, the firm size has a positive effect on cash holdings, and leverage and debt to equity ratio have little effect (Umoren et al., 2024; Adewale et al., 2025). The conflicting results suggest that the impact of asset allocation is related not only to the number of resources allocated, but also to the way a set of financial resources is apportioned among competing uses.

Although there is a significant amount of literature available on Islamic banking, the existing studies have largely focused on the financial performance, profitability, capital adequacy, financing products, and industry challenges (Shehu & Sani, 2025; Abdullahi & Isyaku, 2025; Olaoye et al., 2025). While Ndangra et al. (2025) analysed financing-related variables in the ARDL framework, they focused on the growth of manufacturing sector instead of the financing behaviour of banks.

Likewise, Guizani and Abdalkrim (2022) paid attention to the investment efficiency rather than the financing intensity. There is as yet limited empirical evidence available on the effect of investment allocation, mobilization of deposits, liquidity management, and equity in combination on financing intensity of the Shari'ah-compliant bank. It is significant that this is omitted since financing intensity indicates the degree to which bank assets are converted into productive financing, a central intermediation function of Islamic banking. This study seeks to address this, and examines how asset allocation affects the financing intensity on a quarterly basis, specifically for Jaiz Bank Plc.

The broad objective of the study is to investigate the impact of asset allocation on financing intensity of Jaiz Bank Plc in Nigeria. Other objectives are to:

1. examine the effect of investment allocation ratio on financing intensity in Jaiz Bank Plc;
2. determine the impact of deposit ratio on financing intensity of Jaiz Bank Plc; and
3. analyse the impact of cash holding ratio on financing intensity of Jaiz bank Plc; and
4. examine the effect of equity ratio on financing intensity of Jaiz Bank Plc.

This study's results add to the literature of Islamic banking by supplying empirical proof of the determinants of financing intensity, in a Shari'ah compliant banking environment. The findings will aid the management of banks to make better decisions on asset allocation, regulators to make decisions on policies for strengthening the stability of Islamic banking and investors and researchers in providing pieces of evidence on financing behaviour of Nigerian pioneer full-fledged Islamic bank.

2. Literature Review

Conceptual Review

In essence, asset allocation is the process of distributing a bank's assets across various asset classes to maximize the bank's profitability, liquidity, and risk management goals (Aliaj et al., 2025). In the case of Islamic banks, asset allocation is not merely a conventional portfolio allocation concept since Islamic banking practice must adhere to the



Islamic law (Shariah), which dictates that any investment or financing activity must be compliant with the hallmarks of Islamic law, which rejects interest-based transactions and advocates for asset-backed financing and ethical investments (Uluyol, 2026).

Islamic banks therefore continuously manage their financing portfolios, investment securities, liquidity reserves and equity capital to maximize returns while complying with the Islamic and regulatory requirements (Al-Deek, 2025). Therefore, the findings shown by Guizani and Abdalkrim (2022) suggest that Shariah-compliant institutions utilize their financial resources more effectively than institutions that are not Shariah compliant, as the Islamic principles that need to be followed result in lower financing constraints, which leads to better investment efficiency. Likewise, Olaoye et al. (2025) stated that while Islamic banking contributes to financial inclusion, ethical investment and good risk management, the constraints on Shariah-compliant investment opportunities still remain to affect the asset allocation decision.

Financing intensity is the ratio of financing activities in a bank's total assets (Saif-Alyousfi et al., 2025). In Islamic banking, financing, as opposed to conventional banking, is made up of Sharia-compliant contracts, including Murabahah, Musharakah, Mudarabah, Ijarah, and Salam (Abasimel, 2023). A Higher Financing Intensity means a higher rate of ratio of productive financing to idle liquidity or low-yield investments (Caselli & Zava, 2025).

Financing activities are the main source of income for Islamic banks, so it is important for them to have the proper financing intensity in order to be profitable without jeopardizing their liquidity and financial stability. Shehu and Sani (2025) found that financial performance of Jaiz Bank Plc was positively influenced when the financial resources were capitalized and allocated with prudence, hence financing decisions have an impact on the bank monetary performance.

Investment Allocation Ratio (IAR) is the ratio of the total investment amount to the investment amount in investment securities that are in accordance with Shariah (Hicham et al., 2024). Investment securities will generate relatively stable returns and will be an important tool for liquidity management (Kevin, 2022). This can, however, impact the amount of funds available for customer financing, and result in a lower financing intensity if too much is invested in securities.

Guizani and Abdalkrim (2022) found that the efficient allocation of investments has a positive effect on investment decisions among Shariah-compliant companies, and Okeke and Adegbite (2025) reported that the efficient allocation of investments has an increase effect on the performance of organizations when resources are allocated. The results indicate that investment allocation should be optimized not maximized.

The ratio of the amount financed from the deposits of customers to the total assets is referred to as the deposit ratio (DR) (Hutasoit et al., 2022). Islamic banks have deposits as their major source of funds to undertake financing. When deposits are mobilized, the bank's financing potential increases, but the impact of these mobilized deposits is dependent on the prudent deployment decisions (Ndanu & Jagongo, 2025). For instance, Ndangra et al. (2025) established that simply expanding deposit resources does not guarantee better productive financing; inefficient allocation of credit can make it more difficult to achieve good economic results. So, it's essential to go hand-in-hand with effective financing.



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Cash Holding Ratio (CHR) is the ratio of the portion of total assets held as cash and cash equivalents to ensure liquidity needs (Aralan & Sığircı, 2026). The provision of adequate liquidity facilitates the bank's withdrawal and buffer against unexpected shocks, and is also required by regulators (Allen & Gale, 2018). However, if companies have too much cash, there are fewer financing opportunities because the returns on idle cash are lower than those on financing assets.

To support this, Umoren et al., (2024) noted that the financial structure has a significant impact on the cash holding behaviour of firms; Okeke et al. (2021) found that financing structure impacts on the liquidity management of corporate entities. These investigations suggest that an optimal and not excessive liquidity level is beneficial to financial efficiency.

Equity Ratio (ER) represents the fraction of financial institution's assets that are funded by the shareholders' equity, and demonstrates the strength of a financial institution's capital (Saeed et al., 2020). An equity position is crucial for the financial stability of the bank, as it provides a buffer against losses and boosts the bank's ability to meet capital requirements while maintaining its financing capacity, especially during unexpected events (Olawale, 2024). This study by Shehu and Sani (2025) showed that capitalization of the Jaiz Bank Plc has a positive impact on financial performance of the bank due to the efficient allocation of the capital.

Similarly, Eseimieghan and Onuorah (2025) found that a proper financing mix improves the organizational performance in terms of balancing the risk and return. In Islamic banking, thus, equity is not only a regulatory mandate, but also a strategic asset that helps achieve sustainable growth in banking financing. Taken together, these ideas indicate that Islamic banks incur the costs of financing as a result of their ability to allocate investment assets, to mobilize deposits, to manage liquidity, and to have sufficient equity capital and follow Shariah principles.

Empirical review

Shehu and Sani (2025) examined the effect of capitalisation on the financial performance of Jaiz Bank Plc, Nigeria over the period of 2013-2023. This study used quantitative research design and the multiple regression analysis technique was used using SPSS version 26. The results show that the capitalization had a positive and significant effect on Return on Assets (ROA). The study found that efficient allocation of resources and Sharia-compliant financial mechanism would enhance the financial performance of Jaiz Bank Plc.

Olaoye et al. (2025) investigated the problems and prospects of Islamic banking institutions in Nigeria. This study employed mixed methods research design, which included questionnaires, interviews and secondary data from industry reports and government publications. The findings showed that Islamic banking operations are limited by lack of public awareness, limited investment opportunities according to Islamic principles, and regulatory issues. Islamic banks do, however, have a strong track record of financial inclusion, ethical investments, poverty alleviation and good credit risk management. The study has concluded that robust regulations and public consciousness is needed.

Guizani and Abdalkrim (2022) studied the influence of Sharia compliance on internal capital allocation and investment policy of the Malaysian listed companies. The data used for the study consisted of 178 companies for the period 2008-2017 and

Generalized Method of Moments (GMM) estimation technique was used. The finding stated that the investment efficiency of Sharia-compliant firms is higher than that of non-compliant firms and they use less internally generated funds for investment. The study found that the application of Islamic business principles decreases financial constraints and increase the process of efficient capital allocation which leads to better investment decision making process within the companies.

Abdullahi and Isyaku (2025) in their study, used secondary data obtained from the top 10 Jaiz and Taj Banks in Nigeria, from 2019 to 2023, to find the effect of Shari'ah-compliant products on the financial performance of Jaiz and Taj Banks in Nigeria. The results showed that there was a significant impact of Murabahah and Sukuk on Return on Equity (ROE) and no significant impact of Ijarah. The study has found that Murabahah and Sukuk are better tools to improve the profitability of Islamic banking in Nigeria.

The effect of deposit money banks' loan to deposit ratio and machinery financing on the growth of manufacturing sector in Nigeria (1981 to 2023) was studied by Ndangra et al. (2025). The study used the Autoregressive Distributed Lag (ARDL) model for analysis of the study. The results indicated that the variables had a negative impact on manufacturing production in the short run and a delayed impact or none in the long run. The study found that the growth of the manufacturing sector in Nigeria is necessary for the country to become a sustainable manufacturing nation and these include efficient credit allocation, reduction in lending rates and improvement in infrastructure.

Umoren et al., (2024) investigated the effect of financial structure on cash holding ratio of listed firms in Nigeria's Consumer Goods industry. The following descriptive statistics were used for analysis, together with simple linear regression. The results showed that the size of the firm had a positive and significant effect on the cash holdings whereas leverage and debt to equity ratio had negative but insignificant effect on the cash holdings. The study found out that the overall size of the firms is the most influencing factor of cash holding among Nigerian listed consumer goods firms.

The study investigates the impact of leverage on cash ratio of conglomerate firms in Nigeria by Okeke et al. (2021). Secondary data were taken from annual reports of sampled enterprises. The results showed that leverage had a negative relationship with firms' cash ratios and that it was statistically significant, suggesting that an increase in leverage decreases the amount of cash being held by the firms. The study suggested that companies should use their own capital resources rather than borrowing funds from external sources in order to keep their liquidity position in good shape in the future.

Eseimieghan and Onuorah (2025) carried out a study on the impact of financing mix decisions on the performance of listed oil and gas companies in Nigeria in the period 2014 to 2023. Return on equity was proxying firm performance and debt-to-equity ratio, debt ratio, capitalization ratio and interest coverage ratio were used to measure financing mix. The results revealed that debt-to-equity ratio, debt ratio and interest coverage ratio positively and significantly affected performance while capitalization ratio negatively and significantly affected performance. They found that financial ratios that balance debt and equity financing optimally improve profitability and reduce financial distress risks.

Okeke and Adegbite (2025) investigated the linkage between capital intensity and financial performance of five quoted agricultural companies in Nigeria from 2014 to 2024 using Ordinary Least Squares (OLS) regression, after performing Hausman specification



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test. The capital intensity measures used were the investment ratio, property, plant and equipment ratio and intangible ratio, and return on assets was used as a proxy measure of financial performance. The results showed that investment ratio and property, plant and equipment ratio were positively and significantly affecting the return on assets while the intangible ratio was negatively and insignificantly affecting it. The study suggested strengthening the firms' performance by investing more in the productive fixed assets and using intangible assets more efficiently.

Theoretical Framework

The underlying theory of this research is the Portfolio theory which was established by Harry Markowitz (1952). The theory was first presented in a groundbreaking article entitled Portfolio Selection in The Journal of Finance. According to Portfolio Theorem, investors and financial institutions can maximize their expected return on investment while minimizing their risk by effectively allocating resources to various assets. The theory suggests rather than focussing resources in one category of asset, an optimal mix of assets that balances profitability, liquidity and risk based upon institutional goals.

The theory has been introduced for investment portfolios but, since banks allocate their assets on a regular basis among loans and financing, investment securities, cash reserves, and other earning assets, the principles of Portfolio Theory have been widely applied to banking studies. The theory implies that the relative proportions of the allocation of resources to each asset category have a significant impact on stability, liquidity, financial performance and overall operational efficiency. Thus, proper asset allocation can serve as a strategic tool designed to deliver sustainable financial results.

The principles of Islamic banking are closely related to those of the portfolio theory. Islamic banks have optimized their funding resources using Shariah-compliant contracts and investment vehicles, and have kept sufficient liquidity and capital buffers, unlike conventional banks that heavily rely on interest-bearing loans. Efficient allocation of available resources is more important with Islamic banks because of diminishing investment opportunities because of Shariah compliance. It is therefore appropriate to use the theory as it offers a suitable model for the understanding of how various components of a bank's asset portfolio affect financing decisions.

Portfolio Theory is relevant to this research because it explains how asset allocation relates to the financing intensity. Specifically, the Investment Allocation Ratio (IAR), Deposit Ratio (DR), Cash Holding Ratio (CHR) and Equity Ratio (ER) are other methods by which the Jaiz Bank allocates and finances its resources. Every decision to raise investment in Shariah-compliant securities, keep more cash for meeting liquidity needs, improve equity capital, or call in deposits has an impact on the ratio of assets available to finance activities. According to Portfolio Theory, the intensity of financing will vary with the bank's efficiency in managing the trade-off of these asset allocations and in keeping the risk and liquidity at desired levels.

It may be inferred that the theory is appropriate for use in this study because of the direct explanation of the influence of strategic allocation of financial resources on financing behavior in a banking environment that is Shariah-compliant. It serves as the conceptual underpinning to investigate whether the financing intensity of the Jaiz Bank Plc can be significantly explained by investment allocation, deposits, liquidity holdings and the equity capitalization of the bank.

3. Methodology

Correlational research design is adopted for this study; secondary data were used which were obtained from the published financial statements of the company under study (Jaiz Bank Plc) for a period of 10 quarters starting from Q2 2016 to Q1 2026. Descriptive statistics is used as one of the preliminary steps to the analysis to provide an overview of the characteristics of the variables, followed by correlation analysis to identify the relationship between the variables.

The Augmented Dickey–Fuller (ADF) unit root test is used to test for stationarity and the Autoregressive Distributed Lag (ARDL) is used to estimate shortrun and longrun dynamics. Diagnostic tests used for the evaluation of model adequacy include the Jarque–Bera normality test, the Breusch–Godfrey serial correlation test, Breusch–Pagan–Godfrey heteroskedasticity test and Ramsey RESET test. The CUSUM and CUSUMSQ tests are also used to check the parameter stability.

Model Specification

The research adopted Portfolio Allocation and Banking Intermediation Framework which suggests that banks' funding choices rely on their investment allocation, their deposit mobilization, liquidity standpoint and capital adequacy. Thus, financing intensity is modeled as a function of the investment allocation ratio, deposit ratio, cash holding ratio and equity ratio.

The functional relationship is specified as: $FI_t = f(IAR_t, DR_t, CHR_t, ER_t) \dots \dots \dots (1)$; where: FI = Financing Intensity; IAR = Investment Allocation Ratio; DR = Deposit Ratio; CHR = Cash Holding Ratio; ER = Equity Ratio. The econometric model is specified as: $FI_t = \alpha_0 + \alpha_1 IAR_t + \alpha_2 DR_t + \alpha_3 CHR_t + \alpha_4 ER_t + \varepsilon_t \dots \dots \dots (2)$; where: α_0 = Constant term; $\alpha_0 - \alpha_4$ = Parameters to be estimated; ε_t = Stochastic error term. Since the variables may be integrated of mixed orders, the Autoregressive Distributed Lag (ARDL) model is specified as:

$$\Delta FI_t = \beta_0 + \sum_{i=1}^p \beta_1 \Delta FI_{t-i} + \sum_{i=0}^{q_1} \beta_2 \Delta IAR_{t-i} + \sum_{i=0}^{q_2} \beta_3 \Delta DR_{t-i} + \sum_{i=0}^{q_3} \beta_4 \Delta CHR_{t-i} + \sum_{i=0}^{q_4} \beta_5 \Delta ER_{t-i} + \phi ECT_{t-1} + \varepsilon_t \quad (3)$$

where: Δ = First difference operator; β_0 = Constant term; $\beta_1 - \beta_5$ = Short-run coefficients; p, q_1, q_2, q_3, q_4 = Optimal lag lengths; ECT_{t-1} = Error correction term; ε_t = Error term. The Error Correction representation of the ARDL model is expressed as:

$$\Delta FI_t = \beta_0 + \sum \beta_i \Delta X_t + \phi ECT_{t-1} + \varepsilon_t \quad (4)$$

where: X_t represents the explanatory variables (IAR, DR, CHR, and ER); ECT_{t-1} is the lagged error correction term; ϕ denotes the speed of adjustment coefficient, which is expected to be negative and statistically significant, indicating convergence from short-run disequilibrium to long-run equilibrium.

The ARDL approach allows the estimation of the short-run and long-run relationship between financing intensity and its determinants simultaneously. It is especially relevant since it can include variables of order I(0) and I(1) but not including variables of order I(2). Further diagnostic tests conducted after the model is estimated provide an additional evaluation of the robustness of the model estimated, such as tests for serial correlation, heteroskedasticity, normality, functional form, multicollinearity and parameter stability.



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This study uses Financing Intensity (FI) as dependent variable which is the ratio of net loans to total assets, which means that the proportion of total assets used for financing activities will be the dependent variable. The independent variables include Investment Allocation Ratio (IAR) which is investment securities/total assets, Deposit Ratio (DR) which is total deposits/total assets, Cash Holding Ratio (CHR) which is cash and cash equivalents/total assets and Equity Ratio (ER) which is shareholders' equity/total assets.

4. Results and Discussion

Table 1

Descriptive Statistics

	FI	IAR	DR	CHR	ER
Mean	0.326178	0.214023	0.391153	0.155855	0.095003
Median	0.31815	0.24075	0.38645	0.1588	0.07795
Maximum	0.5829	0.3938	0.5625	0.3879	0.2504
Minimum	0	0	0	0	0
Std. Dev.	0.098075	0.111749	0.085413	0.074177	0.049416
Skewness	-0.4182	-0.57108	-1.9569	0.487005	1.243631
Kurtosis	5.29917	2.33578	12.61874	4.240291	4.417123
Jarque-Bera	9.976271	2.909541	179.7299	4.145026	13.65784
Probability	0.006818	0.233454	0.00E+00	0.125869	0.001082
Sum	13.0471	8.5609	15.6461	6.2342	3.8001
Sum Sq. Dev.	0.375133	0.487027	0.284517	0.214589	0.095235
Observations	40	40	40	40	40

Source: Author's Computation (2026)

Note: FI is Financing Intensity, IAR is Investment Allocation Ratio, DR is Deposit Ratio, CHR is Cash Holding Ratio and ER is Equity Ratio.

The descriptive statistics of the variables used in the study, namely Financing Intensity (FI), Investment Allocation Ratio (IAR), Deposit Ratio (DR), Cash Holding Ratio (CHR) and Equity Ratio (ER) are shown in table 1. The mean values of all the variables were positive and stable over the period of the study. The average financing activities for FI were 0.3262, making up about 32.62% of the total assets, and the average investment securities was 0.2140, which was about 21.40% of the total assets for IAR. The Deposit Ratio had the highest average (0.3912), which translates to 39.12% of total assets being financed by customer deposits; the CHR averaged 0.1559 and ER averaged 0.0950, reflecting 9.50% of total assets financed by shareholders' equity.

The variation, or degree of fluctuation, is measured by standard deviation, and IAR had the highest degree of fluctuation (0.1117), followed by FI (0.0981), DR (0.0854) and the lowest being ER (0.0494) representing the least fluctuation. The results of skewness analysis indicated that FI, IAR, and DR were negatively skewed, and CHR and ER were positively skewed. Kurtosis values for FI (5.2992), DR (12.6187), CHR (4.2403), and ER (4.4171) indicate leptokurtic distributions, while IAR (2.3358) is platykurtic.

The Jarque-Bera test revealed that the variables FI, DR and ER are not normal ($p < 0.05$), while IAR and CHR are normally distributed ($p > 0.05$). Although some variables

are not normally distributed, this does not hamper the econometric analysis because the "normality" assumption is mainly for the model's residuals. Following the above, the study will seek to investigate pairwise relationships between the variables adopted using the correlation analysis as shown in Table 2.

Table 2

Correlation Matrix

	FI	IAR	DR	CHR	ER
FI	1				
IAR	-0.37458	1			
DR	0.079479	0.359277	1		
CHR	-0.09211	0.05633	0.401737	1	
ER	0.567038	-0.6624	0.225637	0.022	1

Source: Author's Computation (2026)

According to the results of the correlation matrix shown in Table 2, there are linear correlations among financing intensity (FI), investment allocation ratio (IAR), deposit ratio (DR), cash holding ratio (CHR) and equity ratio (ER). There is a moderate positive correlation ($r = 0.5670$) between FI and ER which means that banks with higher equity ratio are more active in financing activities. On the other hand, there is little relationship between customer deposits and financing activities as seen from the value of FI (0.0795).

On the contrary, banks with more investment securities are likely to have less financing activity and there is a slight negative correlation between FI and CHR (-0.0921), meaning that bigger cash reserves would slightly reduce the banks' financing intensity. There is a positive correlation between the investment allocation ratio and DR (0.3593) and a very weak positive correlation with CHR (0.0563). However, the relationship between IAR and ER is significant and negative (-0.6624) which means the bank with higher equity ratio will invest less.

The DR is positively correlated with both CHR (0.4017) and ER (0.2256), meaning that the more a bank has in deposits, the more it has to hold cash and the more equity it has. The correlation coefficient between CHR and ER is almost zero, $CHR \sim 0.0220$ ER, which shows almost no direct linear correlation. The values of the correlational matrix are all below 0.8, indicating that there was little multicollinearity among the variables and the highest being between IAR and ER (-0.6624). This enables the explanatory variables to be included in the ARDL model together without any worries about perfect linear relationships. The next step in the study is to determine the stationarity of the variables by using Augmented Dickey-Fuller (ADF) unit root test, whose results are presented in Table 3.



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Table 3

Augmented Dickey-Fuller (ADF) Unit Root Test

Variables	ADF Statistic	5% Critical Value	P- Value	Stationarity	Order of Integration
FI	-0.570312	-2.943427	0.8652	Non-Stationary	
D(FI)	-13.628997	-2.943427	0.0000	Stationary	I(1)
IAR	-2.007021	-2.938987	0.2827	Non-Stationary	
D(IAR)	-7.829846	-2.941145	0.0000	Stationary	I(1)
DR	-4.514661	-2.938987	0.0008	Stationary	I(0)
CHR	-3.350614	-2.941145	0.0194	Stationary	I(0)
ER	-1.673416	-2.941145	0.4363	Non-Stationary	
D(ER)	-10.766150	-2.945842	0.0000	Stationary	I(1)

Source: Author's Computation (2026)

The results of the Augmented Dickey-Fuller (ADF) unit root tests for testing stationarity of study variables are presented in Table 3. The test is performed by comparing the ADF statistic to 5 percent critical values and corresponding probabilities. The results suggest that financing intensity (FI) is non-stationary at level (ADF statistic of -0.570312), but is stationary after first differencing (ADF statistic of -13.628997), hence it is integrated of order one (I(1)).

Also, the investment allocation ratio (IAR) is I(1) since it is non-stationary at level (ADF statistic of -2.007021) and it is also non-stationary upon first differencing (ADF statistic of -7.829846). The opposite is true for the deposit ratio (DR) which is stationary (ADF statistic of -4.514661) and the cash holding ratio (CHR) which is also stationary (ADF statistic of -3.350614). They're both of order zero integrated. On the other hand, the equity ratio (ER) is non-stationary at level (ADF statistic of -1.673416), but turns stationary after first differencing (ADF statistic of -10.766150), therefore it is I(1).

Overall, the result shows a combination of I(0) and I(1) variables thus justifying the application of the Autoregressive Distributed Lag (ARDL) estimation method to investigate the long run relationships between the variables being analyzed in this study.

Table 4

ARDL Bounds Cointegration Test

Test Statistic	Value	Significance	I(0)	I(1)
F-statistic	10.0467	10%	2.20	3.09
K = 4		5%	2.56	3.49
		1%	3.29	4.37

Source: Author's Computation (2026)

The result of the ARDL Bounds cointegration test for the long-run relationship between financing intensity (FI), investment allocation ratio (IAR), deposit ratio (DR), cash holding ratio (CHR) and equity ratio (ER) is presented in table 4 for Jaiz Bank Nigeria

Plc. The null hypothesis assumes that there is no long-run relationship between these variables. The estimated F-statistic is 10.0467, which is well above the lower bound, $I(0) = 2.56$ and upper bound $I(1) = 3.49$ at the 5 percent, and higher than the upper bounds at 10 percent and 1 percent levels.

Therefore, the null hypothesis is rejected, and the results of the test are statistically significant as evidence of a long run cointegrating relationship between the variables of the model. This finding suggests that each variable can have a short-term change, but they all are in long-term equilibrium. Any short run deviation is expected to be short-lived and it is therefore necessary to use the error correction model (ECM) in the ARDL framework to calculate the long run coefficients and results of which are presented in Table 5.

Table 5

Long-Run Multiplier Effects

Variable	Coefficient	Std. Error	t-Statistic	Prob.
IAR	-0.041144	0.210316	-0.195628	0.8461
DR	-0.318009	0.178457	-1.781992	0.0842
CHR	-0.586961	0.164778	-3.562132	0.0012
ER	0.959232	0.455692	2.105002	0.0432
C	0.468165	0.088989	5.260946	0.0000

Source: Author's Computation (2026)

The long run impact of different financial ratios on financing intensity in Jaiz Bank Nigeria Plc is analyzed in table 5. The investment allocation ratio (IAR) has a negative effect but its effect is statistically insignificant in financing intensity, as the coefficient is -0.041144 with the p-value of 0.8461, meaning that it is not significant in influencing financing intensity during the study period. The deposit ratio (DR) also shows a negative relationship with a coefficient of -0.318009 and a p-value of 0.0842, indicating a weak negative relationship with deposit growth.

The cash holding ratio, on the other hand, has a statistically significant negative effect with a coefficient of -0.586961 ($p=0.0012$) which means that a high cash holding ratio decreases the available funds for financing due to excess liquidity. On the other hand, ER has a positive and statistically significant relationship with financing intensity and the coefficient of the relationship is 0.959232 ($p=0.0432$), which means that the higher capitalization is beneficial for financing activities of the bank due to its stability and resilience.

The overall results indicate that cash holding ratio has a negative influence on financing intensity, whereas equity ratio has a positive influence on financing intensity. According to the study, further research is needed to investigate the short-run dynamics with the Error Correction Model (ECM) as explained in Table 6.



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Table 6

Short-Run Dynamic Effects and Error Correction Model (ECM)

Dependent Variable: D(FI)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
COINTEQ(-1)	-0.782981	0.092061	-8.505056	0.0000
D(IAR)	-0.283410	0.089022	-3.183583	0.0034
D(IAR(-1))	-0.360517	0.088826	-4.058694	0.0003
D(IAR(-2))	-0.297085	0.099856	-2.975129	0.0057
D(ER)	-0.746236	0.259976	-2.870402	0.0074
D(ER(-1))	-0.470593	0.163082	-2.885613	0.0072
D(ER(-2))	-0.653259	0.142333	-4.589653	0.0001

Source: Author's Computation (2026)

The analysis of the short-run dynamics and error correction mechanism (ECM) in Table 6 reveals that the investment allocation ratio (IAR), deposit ratio (DR), cash holding ratio (CHR), equity ratio (ER) and financing intensity (FI) of Jaiz Bank Nigeria Plc are analyzed. The error correction term, COINTEQ (-1), has a statistically significant p value of 0.0000 and a coefficient of -0.782981, which is small and stable in the long-run. It implies that the level of financing intensity remains nearly in equilibrium after about 78.3% of short run disequilibrium is corrected within a quarter, which indicates a fast normalization of the aftershock effect.

The short-run estimates reveal that the current investment allocation ratio (D(IAR)) has a negative impact on financing intensity (-0.283410), while significant negative effects are observed as well for the first lag (D (IAR (-1)) = -0.360517) and second lag (D (IAR (-2)) = -0.297085). Therefore, greater allocation of assets to investment securities results in less funds available for financing activities.

Likewise, the first lagged equity ratio (D(ER)), and the second lagged equity ratio (D(ER)) also have negative and significant impacts on financing intensity with coefficient of -0.470593 (p=0.0074) and -0.653259 (p=0.0016) respectively. This means that at first, equity capital rise responded with a decline in financing intensity indicating a possible emphasis on building up capital rather than financing activities; however, based on the long run, there is a positive relationship between an increase in equity capital and an increase in financing intensity.

In general, the short-run results support the negative relationships between investment allocation and equity ratios with financing intensity and the significant error correction term validates the hypothesis that short-run deviations are temporary and the model quickly moves toward long-run equilibrium. As for further tests, the reliability test of the ARDL model will be evaluated, as seen in Table 7 below.

Table 7

Diagnostic Tests

Statistics	Normality	Serial Correlation	Heteroskedasticity
J.B./F-Statistic	1.069485	0.115470	0.764505
Probability	0.585820	0.891460	0.670296

Source: Author's Computation (2026)

Table 7 shows the post-estimation diagnostic tests of the ARDL model, highlighting the validity and adequacy of the model's estimates. The Jarque-Bera (JB) statistic was used to test the normality of the residuals, and resulted in a value of 1.069485 with a probability of 0.585820. This results in a probability of more than 5 percent, so the null hypothesis of normal distribution of the residuals is accepted, a prerequisite for classical linear regression.

Breusch-Godfrey Serial Correlation LM test: $F = 0.115470$, Prob. = 0.891460. Since the probability is greater than 0.05, the null hypothesis is not rejected, and thus, there is no autocorrelation (no serial correlation) in the residuals, which means the estimated coefficients are unbiased.

Moreover, the Breusch-Pagan-Godfrey heteroskedasticity test revealed an F statistic of 0.764505 and probability of 0.670296. Again, the fact that the probability is greater than the 5 percent level of significance suggests that the null hypothesis of homoskedasticity is accepted, thus confirming that the variance of the residuals is not changing over the sample period, so there is no heteroskedasticity present.

These diagnostic test results, taken together, confirm that the ARDL model meets important classical regression assumptions that makes the model statistically sound, stable and appropriate to draw meaningful inferences about the factors determining financing intensity in the case of Jaiz Bank Nigeria Plc.

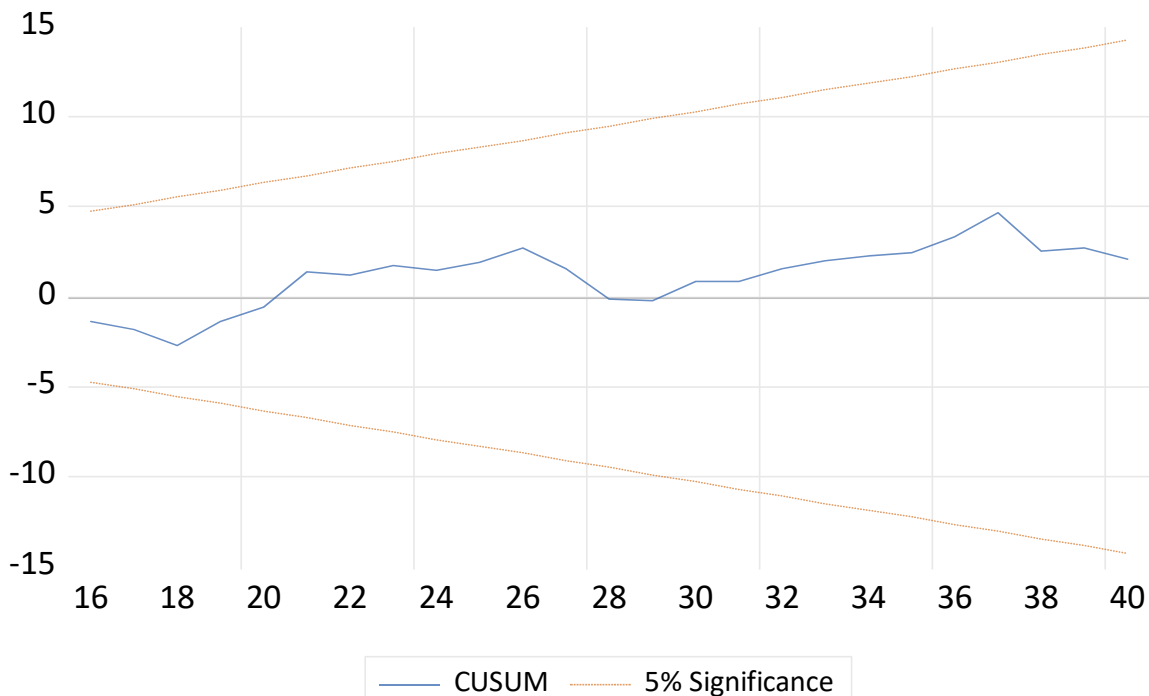


Figure 1: CUSUM Stability Test for the Estimated ARDL Model

Source: Author's Computation (2026)

The estimated ARDL model is tested for stability using Cumulative Sum (CUSUM) stability test which is shown in Figure 1. The CUSUM test is used to see if the estimated coefficients are constant during the study period. The stability of model is evaluated by

comparing the cumulative sum of recursive residuals with the 5 per cent critical bounds. If the CUSUM plot is in these upper and lower critical boundaries, the estimated parameters are said to be stable, which means there is no structural instability or parameter drift over time.

The CUSUM plot in Figure 1 is relatively stable around the zero line and entirely within the 5 percent significance limits for the sample period considered. There are minor peaks and valleys, especially between observations 21 and 27, and 35 and 38, but none surpass the critical limits. This means that, while the recursive residuals fluctuate at the short-term level, the estimates of the coefficients do not fluctuate greatly.

The stability shown by the CUSUM test suggests that the relationship between the asset allocation variables (Investment Allocation Ratio (IAR), Deposit Ratio (DR), Cash Holding Ratio (CHR) and Equity Ratio (ER)) and financing intensity (FI) was stable during the period of study. However, there is no evidence that there are structural breaks and significant parameter instability, which would compromise the validity of the estimated ARDL model.

The overall result of the CUSUM indicates that the estimated model is stable on all parameters and meets the assumption of parameter stability for an effective econometric analysis. The stability of the estimated short run and long run relationships further reinforces the reliability of the policy conclusions drawn and suggests that the conclusions are reliable over the time period studied.

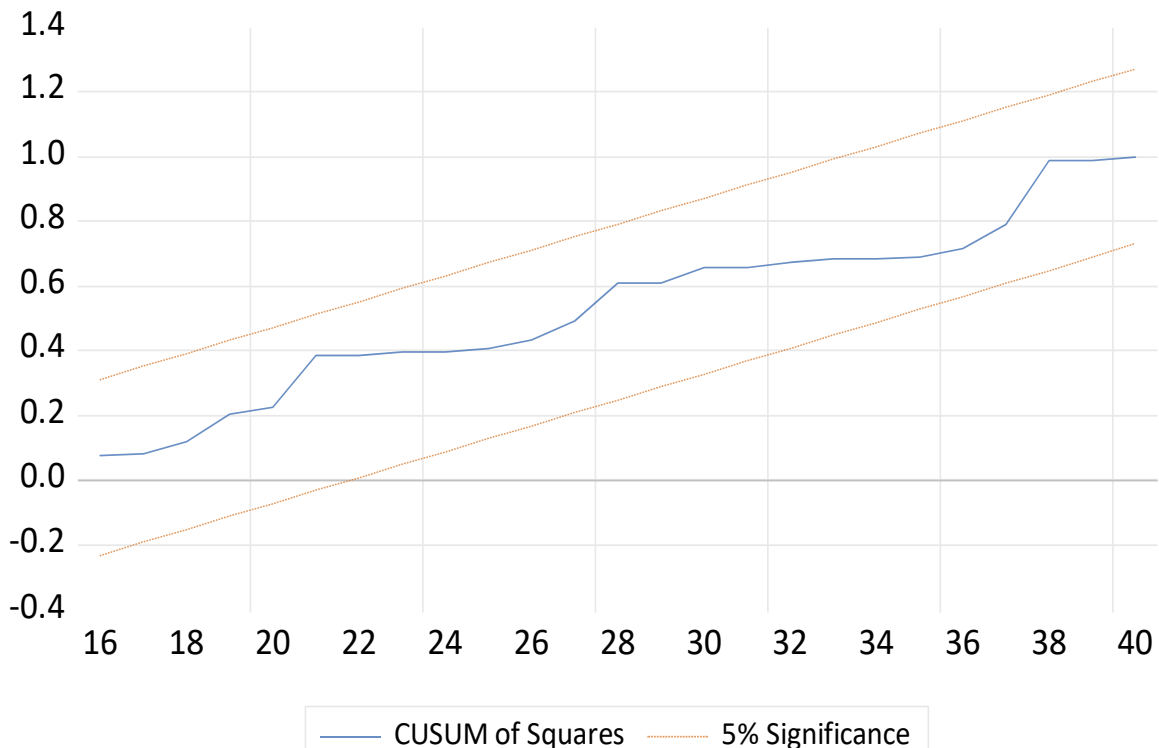


Figure 2: CUSUM of Squares (CUSUMSQ) Stability Test for the Estimated ARDL Model

Source: Author's Computation (2026)

Cumulative Sum of Squares (CUSUMSQ) stability test of the estimated ARDL model is shown in Figure 2. The CUSUM test tests the stability of the estimated coefficients, but the test CUSUMSQ tests if the variance of the recursive residuals is stable in the sample period. The model is deemed structurally stable if the CUSUMSQ plot does not exhibit sudden changes or instability in the estimated parameters within the 5 percent critical bounds, suggesting that the model does not exhibit sudden structural changes or instability.

The CUSUMSQ plot shows a general upward trend over the period of study as seen in Figure 3, which is typical of the squared recursive residuals. A slight number of increases are seen at points 27–30 and 37–39, but the plot is always within the upper- and lower 5 percent significance boundaries. The sum of the squares of the differences from the model does not reach the critical boundaries at any point, indicating that there are no structural breaks or sudden changes in the variance of the residuals of the model.

The result of the CUSUMSQ test further shows that the estimated ARDL model is structurally stable during the entire study period. This suggests that the financing intensity be neither affected by any abnormal fluctuation in the data nor by the changes in the value of the financing variables as Investment Allocation Ratio (IAR), Deposit Ratio (DR), Cash Holding Ratio (CHR), and Equity Ratio (ER). Thus, the estimated coefficients are not influenced by any structural changes or parameter instability.

In summary, the CUSUMSQ result justifies the strength and stability of the model estimated. The null hypothesis of stability of the parameter is not rejected for the plot, as it is within the critical range throughout the sampling period. If so, then this would constitute additional proof that the short and long-run relationships estimated in this study are stable, and that the study results and policy recommendations are reliable.

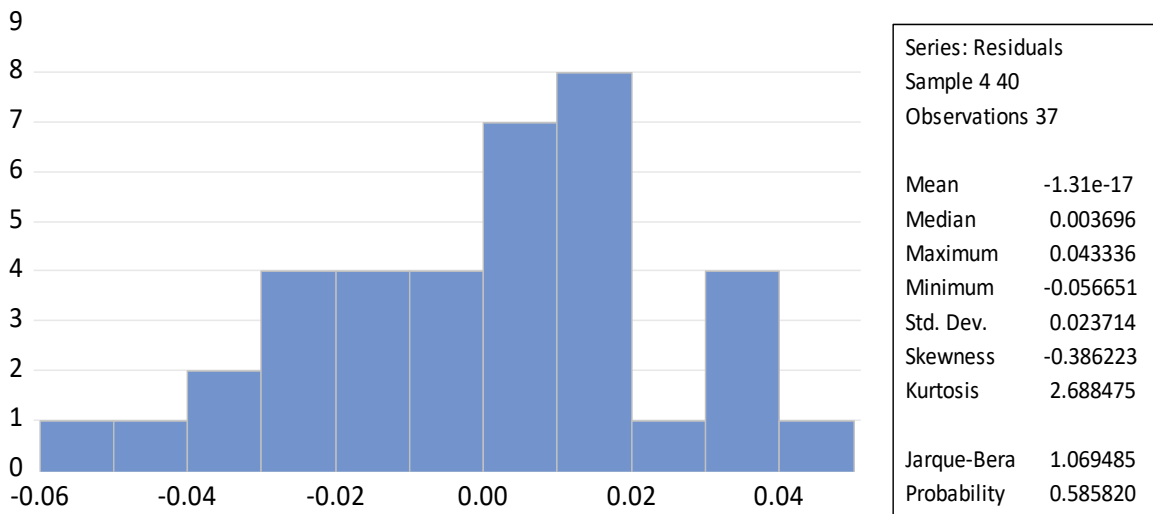


Figure 3: Histogram and Normality Test of Model Residuals

Source: Author's Computation (2026)

The residuals from the ARDL model are summarized in Figure 3 and appear to be normally distributed with a mean of almost 0 ($-1.31E-17$) and a symmetrical distribution. All the residuals have a very small range (from 0.043336 to -0.056651) and a very small standard deviation (0.023714). The median value of the residuals is 0.003696. The



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skewness coefficient is -0.386223 , which means that there is a slight left skewness. The Kurtosis is 2.688475 , which represents a normal peakedness. The Jarque–Bera statistic of 1.069485 ($p = 0.585820$) confirms the normality of residuals as the null hypothesis cannot be rejected. This confirms that the ARDL model has the confidence interval for the estimated coefficients and hence, the subsequent inference of the relationships between asset allocation and financing intensity in Jaiz Bank Plc is reliable.

Discussion of Findings

According to the ARDL estimates the variables have short run and long run relations with financing intensity (FI). The Bounds test confirmed the cointegration between the size of financing intensity (FI), investment allocation ratio (IAR), deposit ratio (DR), cash holding ratio (CHR) and equity ratio (ER) variables, which implies that they do not behave independently in the long run. Specifically, long run results indicate that cash holding ratio (CHR) has significant negative effect on financing intensity and equity ratio (ER) has significant positive effect. By contrast, investment allocation ratio (IAR) does not seem to have a significant negative impact, while deposit ratio (DR) has a negative impact that is only weakly significant at the 10 percent level.

The positive long-term impact of equity ratio is similar to the result obtained by Shehu and Sani (2025) that higher capitalization has a positive impact on the financial performance of Islamic banks. The finding implies that enhancing equity financing boosts the ability of Islamic banks to grow Shariah compliant financing in the future, with an emphasis on equity financing. Similarly, the discovery supports the findings of Abdullahi and Isyaku (2025) that the provision of well-capitalised Shariah-compliant banking instruments enhances bank profitability and operational performance.

The negative effect of cash holding ratio on financing intensity is statistically significant, suggesting that holding too much cash will decrease the amount of funds available for productive financing. The finding agrees with the work of Okeke et al. (2021), which revealed that financing decision significantly affects cash position of firms and highlighted efficient use of internal funds of firms. It also validates the urges of Umoren, Jeremiah and Ikpong (2024), which stated that financial structure has an important role in deciding cash holdings and overall financial productivity.

Moreover, the negligible long-term impact of investment allocation ratio also contradicts the results of Guizani and Abdalkrim (2022) which found that firms adhering to Sharia principles in their investment allocation are more efficient in allocating investment resources, thus improving investment performance. The difference could be related to the difference in the institutions, samples and the operational structure of Islamic banking firms in Nigeria and in Malaysia.

The results of the short-run dynamics show that short-term deviations from the long-term equilibrium are corrected by a negative and statistically significant and properly signed error correction term, which means that the short-term disequilibrium is adjusted to the long-term equilibrium at a rate of about 78.3 per cent per year. This is the confirmation of stability of the estimated ARDL model and presence of long-run causality between the variables.

The overall results indicate that equity financing is the primary source of financing intensity in Islamic banking, while too much cash holdings are limiting financing activities. The findings also suggest that a robust capital base and efficient financial resources

allocation is critical to enhance financing intensity and ensure the continuity of development of Islamic banks in Nigeria.

5. Conclusion and Recommendations

The ARDL approach was used to assess the impact of investment allocation ratio, deposit ratio, cash holding ratio and equity ratio on financing intensity in Nigeria. The results verified the long-run relationship of the variables. The long run estimates showed that cash holding ratio had a significant negative impact on financing intensity while equity ratio had a significant positive impact on financing intensity. Deposit ratio had a weak negative effect while investment allocation ratio had a negative but insignificant effect.

The short run findings further showed that investment allocation ratio and equity ratio significantly affect the financing intensity. The behavior of the error-correction mechanism was negative and statistically significant, meaning that the short run deviations are quickly adjusted towards LRE. The study concludes that equity financing increases the intensity of financing, while high cash holdings decrease Islamic financial institutions' financing capacity in general.

The study suggests that the following recommendations should be made:

- i. The bank's equity base needs to be improved with effective capitalisation measures, as a robust equity capital will increase financing intensity and aid the financial stability of the bank in the long-term.
- ii. Management must ensure that they have a proper policy for holding cash; neither holding excessive cash nor using surplus cash to fund unproductive Sharia-compliant financing activities while ensuring sufficient cash to cover their operating requirements.
- iii. Periodic review of the investment allocation policy of Jaiz Bank Plc should be carried out to prevent that any significant allocation of assets to investment securities would displace financing activities, especially in the short term but also ensure the proper balance between investment and financing portfolios.
- iv. The poor conversion of deposit mobilization to Shariah financing of the depositors' funds could be improved by strengthening financing policies and allocation of resources, and not just by concentrating on the mobilization of deposits as this was not found to have significant impact on financing intensity during the study period for Jaiz Bank Plc.

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