

MORTGAGE FINANCE, INSTITUTIONAL FACTORS AND HOUSING DEVELOPMENT IN NIGERIA

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<https://doi.org/10.57233/gujaf.v6i1.10>

Abstract

The need to establish the role of institutional factors in the impact of mortgage finance on housing development in Nigeria creates the necessity for this study. This study examines the interacting effect of institutional factors in the relationship between mortgage finance and housing development. Quarterly data on housing delivery, mortgage finance and institutional and economic factors were sourced from the Central Bank of Nigeria statistical bulletin, Federal Mortgage Bank of Nigeria audited report and World Governance Indicator between 2005 to 2022. Empirical analysis was conducted using the Autoregressive Distributed Lag (ARDL) model. The research found a negative and significant (at 10% level of significance) interacting effect of institutional factors in the relationship between mortgage interest (coeff.:-1.967: p-value;0.0734) and housing development, while institutional factors render the effect of mortgage loan and mortgage equity on housing delivery insignificant. The paper concludes that the interaction of institutional factors such as government effectiveness, corruption, regulatory framework, rule of law among others, downplays the efficacy of mortgage finance in causing housing development in the short run and recommends a strengthened institutional framework that guarantees stringent anti-corruption measures, transparent mortgage application and approval process, and expedited bureaucratic processes, to enhance accessibility of mortgage finance.

Keywords: Mortgage Finance, Institutional Factors, Housing Development

JEL Classifications: E62, E63, I31

1.0 Introduction

Inclusive development in social, economic and environmental aspects is crucial for both present and future generations. Shelter is a basic human need and equal access to safe, affordable housing is a UN policy target to achieve sustainable cities and communities by 2030. Uwatt (2019) noted that adequate housing enhances economic development through employment, savings, investment, and labor productivity. Efficient availability of mortgages can promote financial market development and stimulate investment in the housing sector, thereby promoting redistributive and growth objectives.

According to the United Nations, Nigeria currently has 236million population, and by 2050, that number is expected to increase to 400 million. In 2019, Nigeria's housing deficit was estimated by the World Bank in policy research to be 20 million by 2030 (Behr et al., 2021), however, The State House (2023) reports of 2023 indicated that Nigeria's housing deficit had already increased to 28 million units. The World Bank (2024) estimates that at least 40% of Nigerians reside in slums, which increases the need for inexpensive housing due to the country's incapacity to provide both sufficient housing and development resources at the same time as population growth.

The Nigerian government faces challenges in ensuring affordable housing sector funding, with stringent property approval processes, land titling paperwork, and the Land Use Act 1978 being major hurdles. While reforms have reduced the property approval process from 274 to 80 days, more could be done. Access to mortgage finance is constrained by an underdeveloped housing finance system, slow mortgage market development, and corruption (Olatoye, et al, 2022; Mondal & Dipendra, 2018).

Several researchers have reported mixed findings on the effect of mortgage financing on housing development across developed and developing countries; Kioko (2020) established a negatively significant relationship between the two variables, while others such as Etyang & Mwengei (2019), Aladelusi (2019) established a positive nexus between mortgages finance and housing development. Kasim, et al (2023), Nataliya, et al (2023), Ding (2022), Ouma & Odongo (2021), Mohammad and Ka'oje (2021), Siyan, et al (2019), Bello, et al (2020), and Jiatong (2020) also examined the effect of macroeconomic variables on housing development.

Consequently, there is a knowledge vacuum on the influence of macroeconomic factors in the interplay between mortgage finance and housing development, as previous researches basically focused on individual effect of mortgage finance and macroeconomic factors on housing development. The implication of this gap is that, policymakers and analysts may not understand the implication of the prevailing economic conditions on the potency or otherwise mortgage finance in causing housing delivery. This study examines the impact of institutional factors on mortgage finance and housing development in Nigeria, with a focus on the public finance framework for mortgages in Nigeria.

Consequently, the overall objective of this study is to investigate if institutional variables play interactive role in the relationship between mortgage finance and housing development. The specific objectives include to;

- i. Examine the interacting effect of institutional factors and mortgage loan on housing delivery in Nigeria.
- ii. Ascertain the interacting effect of institutional factors and mortgage equity on housing delivery in Nigeria.
- iii. Establish whether or not, macroeconomic factors interaction with mortgage interest affects housing delivery in Nigeria.

2.0 Literature Review

Mortgages are debts with income-producing property as collateral, often associated with real estate (Xudong, 2008). Originating from the 17th century, mortgages have a fixed term to maturity, requiring full repayment. Mortgage can mean "dead," "contract," or "pledge." In case

of default, the pledged property is considered "dead" to the mortgagor, as the property is taken over or seized (Kama, et al, 2013).

In finance realm, a mortgage is a contract whereby a borrower borrows funds from a lender to purchase real estate and pledges the acquired land, with the lender assuming possession in the event that the borrower defaults (Siyan et al, 2019). The land that was pledged was dead to the mortgagee if the loan was paid back. At first, mortgages were only paid land conveyances.

Housing Development

Jansen (2011) defines housing as an economic good, a physical facility for shelter and an instrument for wealth creation and economic growth. Housing serves as a structure for protection against vulnerability, providing health and safety for human continuity. Poopola and Alamu (2016) contend that housing improves quality of life by promoting energy efficiency and resource conservation. They also point out that housing services rely on a healthy institutions and financial system, because purchasing of home is influenced by cost and governmental regulations. According to Bundick (2015), houses are large assets and lifelong investments that contribute significantly to a household's income and are frequently the only long-term investment and store of wealth.

Housing development significantly contributes to economic growth by generating employment, investment and savings enhancement. It also enhances living standards and productivity, affecting people's well-being, physical and mental health, including the environment (Uwatt, 2019).

Institutional Factors

Eldomiaty & El-Sehwagy (2023) perceives institutional quality as the potency and effectiveness of a nation's institutions, including governance, policy formulation, and rule of law, which significantly influence economic growth, development and national competitiveness. Strong institutions enhance essential infrastructure and contribute to economic complexity. The state plays a crucial role in inclusive growth, ensuring fair economic opportunities and equal access for all. However, addressing socioeconomic issues like poverty and wealth disparity can help mitigate these issues (Olanrewaju et al, 2020). The socioeconomic issues of poverty and wealth disparity, exacerbated by social and economic marginalization, can be mitigated by improving access to necessities like decent housing.

Olanrewaju et al. (2020) furthered that institutional quality is one of the most important missing pieces in the process of inclusive growth. This study examines institutional quality as a crucial component for inclusive growth, using the six governance index from the World Bank's Voice and accountability, political stability, government efficacy, regulatory quality, rule of law, and corruption control index are all considered, as provided in the Worldwide Governance Indicators. (WGI).

Empirical Literature

In order to determine the interplay of economic, social, environmental, and institutional dynamics on sustainable development for 16 Latin American nations from 2007 to 2019, Hernández-medina (2025) used a dynamic panel regression model. According to the findings, sustainable development is positively affected by the linkages between institutional and social as

well as institutional and economic factors. Although the study only established the relationship between sustainable development and the independent variables in general, not the precise impact of these interactions on housing development in particular, this result is relevant to the study because it highlights the importance of institutional factors to sustainable development, which housing falls under. Similarly, the impact of mortgage financing is not taken into account. Ekeocha, et al (2023) study revealed that the impact of institutional quality on sectorial and overall economic performance in Sub-Saharan Africa (SSA) remained modest. The study's scope was constrained and it concentrated on the industrial, services and agricultural sectors rather than the independent variable's impact on the housing sector.

In a survey study using the partial least squares structural equation model (PLS-SEM), Adabre et al. (2022) found that bureaucratic bottlenecks, policy instability, and lax enforcement of land development control were the three main obstacles to the development of sustainable housing. These factors accounted for all the important paths of the "institutional barriers." The study also found that "economic," "social," and "environmental" restrictions are multiplied by these institutional barriers. The fact that this study identified institutional elements as contributing to the negative economic effects on sustainable housing development is new, but a significant flaw in the study is that it neglected to consider the financial implications.

Osifalajo, et al (2022) studied the impact of institutional quality on infrastructure development in Nigeria. They used a descriptive survey design and Crombach Alpha test to verify data reliability. Results showed a strong correlation between infrastructure development efficacy and governance, indicating excellent governance practices positively contribute to social, economic, and environmental development. The research, based on 36 Nigerian states, is limited in scope and may be influenced by employment affiliations, potentially compromising the objectivity of the data.

Okolie & Erhijakpor (2020) study found that access to mortgage financing schemes such as national housing fund (NHF) and mortgage investment fund positively affects housing development. However, federal mortgage loans have an inverse effect due to the general public's inability to obtain these loans. The study is a testament to the significance of mortgage finance in meeting housing needs in Nigeria and other regions. The study's use of market interest rate as mortgage borrowing cost is flawed, as Federal Mortgage Bank of Nigeria's rates are usually lower than market rates. Conversely, Kioko (2020) study on mortgage finance's impact on Kenyan residential real estate development found that it doesn't significantly impact the sector, contradicting previous research by Okolie & Erhijakpor (2020) and Etyang & Mwengei (2019). The findings contradict previous research.

Etyang & Mwengei's (2019) study on mortgage financing in Kisumu City, Kenya, found a significantly directional relationship between mortgage loans and savings based financing and real estate performance. The study, which was based on interviews and was informed by structural form theory, lien theory, and liquidity preference theory, could not be totally trustworthy because of subjectivity.

The likelihood of obtaining a mortgage in Spain is also increased by larger housing-loan penetration in ancestry nations, according to Nuria's (2018) research. The study also discovered that monthly mortgage payments are influenced by the depth of ancestry mortgages. The study

emphasizes how crucial cultural perspectives on property rights are when making mortgage decisions. The primary drawback of the study is that, because of its qualitative methodology, it is unable to offer a statistically sound foundation for its empirical conclusions.

Despite the importance of institutional dynamics, studies in the fields of mortgage finance and housing development have, to the best of the researcher's knowledge, mostly ignored the interacting role of institutional factors. For example, building approval, foreclosure procedures, and land titling processing all depend on institutional factors like political stability, voice and accountability, government effectiveness, rule of law, and regulatory framework. Therefore, by determining the interaction effect of institutional factors in the relationship between mortgage finance and housing development, this study aimed to close this gap in the literature.

Theoretical Underpinning

Systems theory, proposed in the 1940s by the biologist - Ludwig von Bertalanffy, and furthered by Ross Ashby in 1956 can be adapted for broader understanding of a phenomenon that incorporates interrelated components, such as housing development (Millanzi, 2016), which may be affected by mortgage finance and institutional factors. Ludwig (1901–1972) originated the systems theory used in social work, because of his dissatisfaction with the way linear, cause-and-effect theories explained growth and change in living organisms.

The main principle of the systems theory is that it considers the system as a whole together with its complex interrelationships among its constituent parts. Structurally, a housing finance system is a separable unit, but functionally it is an inseparable unit with emergent properties (Teye, Teye & Asiedu, 2015), economic and legal frameworks. That is, financial sector cannot create a housing market until other elements, such as quality institutions are effectively incorporated. For example, if mortgage banks require to give housing loans but the land title registry is ineffective (regulatory framework), then obviously the housing (mortgage) market will not function. The system theory therefore gives theoretical validation to the vitality of institutional factors and finance as a major component of a well-functioning housing system. (Warnock & Warnock, 2008).

3.0 Methodology

To test the research hypothesis, mortgage finance variables were adjusted for institutional factors to test for their interacting effect on housing delivery as follows;

$$H_{01}: HDel_t = \alpha_0 + \sum_{t=1}^n \alpha_1 ML_t * Gov_t + ML_t * Rnv_t + ML_t * PSta_t + ML_t * CorC_t + ML_t * RoL_t + \sum_{t=1}^n \alpha_2 MInt_t * Gov_t + MInt_t * Rnv_t + MInt_t * PSta_t + MInt_t * CorC_t + MInt_t * RoL_t + \sum_{t=1}^n \alpha_3 MEqu_t * Gov_t + MEqu_t * Rnv_t + MEqu_t * PSta_t + MEqu_t * CorC_t + MEqu_t * RoL_t + \epsilon_t \dots Eq 1$$

Where:

HDel = Housing Delivery

MLoan = Mortgage Loan

Mint = Mortgage Interest Rate

MEqu = Mortgage Equity

Gov = Government effectiveness

Rnv = Regulatory environment

PSta = Political stability

CorC = Corruption Control

RoL = Rule of Law

α = Coefficient of estimators
 t = time period

The interaction variables are then regressed against the dependent variable using the Autoregressive Distribution Lag (ARDL). The paper adopts ARDL to enable analysis of the dynamic relationships that exists between the time series data, especially as the stationarity test indicates they are not stationary at levels (Hurley and Papanikolaou, 2021). It also enables the researcher test for cointegration among the variables of interest. Generation of interaction variable by multiplying two or more variables is rooted in statistical literatures (Cohen, Cohen, West and Aiken, 2003).

The ARDL model is thus written as:

$$\Delta \text{LnHDEL}_{(t)} = \delta_0 + \alpha_1 \Delta \text{LnHDEL}_{(t-1)} + \alpha_2 \Delta \text{LnHDEL}_{(t-2)} + \alpha_3 \Delta \text{INSTMLOAN}_{(t)} + \alpha_4 \Delta \text{INSTMLOAN}_{(t-1)} + \alpha_5 \Delta \text{INSTMLOAN}_{(t-2)} + \alpha_6 \Delta \text{INSTMINT}_{(t)} + \alpha_7 \Delta \text{INSTMEQU}_{(t)} + \alpha_8 \Delta \text{INSTMEQU}_{(t-1)} + \delta_1 \text{LnHDEL}_{(t-1)} + \delta_2 \text{LnHDEL}_{(t-2)} + \delta_3 \text{INSTMLOAN}_{(t)} + \delta_4 \text{INSTMLOAN}_{(t-1)} + \delta_5 \text{INSTMLOAN}_{(t-2)} + \delta_6 \text{INSTMINT}_{(t)} + \delta_7 \text{INSTMEQU}_{(t)} + \delta_8 \text{INSTMEQU}_{(t-1)} + \epsilon_t \dots \dots \text{eq2}$$

Where:

$\text{LnHDEL}_{(t)}$ is the dependent variable at time t.

$\text{LnHDEL}_{(t-1)}$ and $\text{LnHDEL}_{(t-2)}$ are the lagged values of the dependent variable (housing delivery).

$\text{INSTMLOAN}_{(t)}$, $\text{INSTMLOAN}_{(t-1)}$, and $\text{INSTMLOAN}_{(t-2)}$ are the current and lagged values of mortgage loan and institutional factors interaction (independent) variable.

$\text{INSTMINT}_{(t)}$ is the current value of mortgage interest and institutional factors interaction (independent) variable.

$\text{INSTMEQU}_{(t)}$ and $\text{INSTMEQU}_{(t-1)}$ are the current and lagged values of mortgage equity and institutional factors interaction (independent) variable.

ϵ_t is the error term at time t.

Δ is the change in variables over the past years.

$\alpha_0, \alpha_1, \alpha_2, \dots, \alpha_7$ are the coefficients of the short run dynamic.

$\delta_1, \delta_2, \delta_3, \dots, \delta_8$ are the coefficients of the long run dynamic

Estimation Technique

This study employs time series data that covers a period of 17 years (2005-2022), transformed to quarterly data to obtain 68 observations. A number of diagnostic tests were conducted prior to the estimation of the specified model, they include unit root test, lag length selection and bound test. Model Estimation was carried out using Autoregressive Distributive Lag (ARDL) Regression Analytical Technique. The Autoregressive Distributed Lag (ARDL) model is a widely used method for analyzing time series data relationships, thus suited for this research. It allows for simultaneous estimation of long-run and short-run relationships and ideal for small samples, in practical scenarios. The estimation procedure includes stationarity test, optimal lag length selection and bound test, before estimating the coefficients.

4.0 Results

Table 1:
ADF Unit Root Test

Method	Statistic	Prob.**
ADF - Fisher Chi-square	49.5027	0.0073
ADF - Choi Z-stat	-2.31235	0.0104

Intermediate ADF test results

Series	Prob.	Lag	Max Lag	Obs
LnHDEL	0.2813	1	1	67
LnMLOAN	0.3541	1	1	67
LnMEQU	0.1304	1	1	67
LnMINT	0.0034	1	1	67
GOV	0.0463	1	1	67
CORC	0.1931	1	1	67
PSTAB	0.1697	1	1	67
REV	0.9325	1	1	67
ROL	0.7852	1	1	67
VAC	0.6895	1	1	67

Source: Author's computation (2025).

The above table shows the result of the Augmented Dickey-Fuller (ADF) test, which is used to determine if a time series is stationary or has a unit root. The test is used to examine the null hypothesis that a series has a unit root (i.e., it is non-stationary) against the alternative hypothesis that the series is stationary. The ADF - Fisher Chi-square is 49.5027, with a p-value of 0.0073, while the Choi Z-stat is -2.31235, with a p-value of 0.0104. The p-values are used to determine whether the null hypothesis can be rejected. Since the p-value is less than the 5% level of significance, the null hypothesis is rejected, and the series is considered to be stationary.

However, the results indicate that some series individually have a p-value less than 0.05, indicating that they stationary. Specifically, mortgage interest (LnMINT) has a p-value of 0.0034 (< 0.05), interest rate (INT) has a p-value of 0.0535 (< 0.05), and government effectiveness (GOV) has a p-value of 0.0463 (< 0.05), indicating they are stationary. The other series LnHDEL, LnMLOAN, LnMEQU, LnPCI, INF, CORC, PSTAB, REV, ROL and VAC) have p-values greater than 0.05, suggesting that these series may have a unit root or not likely to be stationary and may require differencing or other transformations to make them stationary before analyzing them, hence, the differencing.

Table 2:
Long Run Form and Bounds Test

Variable	Coeff.	Std. Err	t-Stat	Prob.
LNHDEL(-1)*	0.07461	0.16404	0.45483	0.6613
INSTMLOAN(-1)	1.72368	0.87746	1.9644	0.0851
INSTMEQU(-1)	-0.4156	0.48137	-0.8633	0.4131

INSTMINT**	-1.9676	0.9553	-2.0597	0.0734
D(LNHDEL(-1))	-0.6678	0.23857	-2.7994	0.0232
D(INSTMLOAN)	0.41082	0.70839	0.57994	0.5779
D(INSTMLOAN(-1))	0.03663	0.03132	1.16965	0.2758
D(INSTMEQU)	0.85418	0.44546	1.91754	0.0915
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INSTMLOAN	-23.102	48.8197	-0.4732	0.6487
INSTMEQU	5.56991	8.69943	0.64026	0.5399
INSTMINT	26.3712	61.0581	0.4319	0.6772
t-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
t-statistic	0.454833	10%	-1.62	-3
		5%	-1.95	-3.33
		2.5%	-2.24	-3.64
		1%	-2.58	-3.97

Source: Author's computation (2025).

Table 2 presents the results of the ARDL long run form and the bounds test. The Conditional Error Correction Regression coefficients are not significant, and the levels equations for mortgage finance interaction variables; INSTMLOAN, INSTMEQU, and INSTMINT are not significant. The t-Bounds Test statistic is also not significant at any levels, indicating that there is no evidence of a long-run relationship between the variables. The t-Bounds Test statistic of 0.454833 is also not significant at any levels, also supports evidence that there is no evidence of a long-run relationship between the variables in the model.

Table 3:
Short Run Results

Dependent Variable: L_nHDEL
Method: ARDL

Variable	Coeff.	Std. Err	t-Stat	Prob.*
$L_nHDEL_{(-1)}$	0.40676	0.240797	1.689237	0.1296
$L_nHDEL_{(-2)}$	0.66784	0.238572	2.799361	0.0232
INSTMLOAN	0.41082	0.708387	0.579937	0.5779
$INSTMLOAN_{(-1)}$	1.34948	0.555791	2.428042	0.0413
$INSTMLOAN_{(-2)}$	-0.03662	0.031316	-1.169654	0.2758
INSTMINT	-1.96759	0.955304	-2.059658	0.0734
INSTMEQU	0.85418	0.445457	1.917540	0.0915
$INSTMEQU_{(-1)}$	-1.26976	0.530708	-2.392582	0.0437
R-squared	0.502050			
Adjusted R-squared	0.066344			

Source: Author’s computation (2025).

After adjusting for the lagged values of the dependent variable and the other independent variables, the ARDL coefficients show that the current value of LnHDEL is impacted by its own lagging values, as indicated by the coefficients of the lagged values of the log of housing delivery (LnHDEL), which are 0.406764 and 0.667848, respectively.

The coefficient of INSTMLOAN is 0.410820, meaning that the value of the log of housing delivery (LnHDEL) increases by 0.410820 units for every unit change in INSTMLOAN. The influence of changes in INSTMLOAN on LNHDEL is delayed by one or two periods, according to the coefficients on the lagged values of INSTMLOAN, which are 1.349485 and -0.036629, respectively. The coefficient of INSTMINT for the interaction between institutional variables and housing development and mortgage financing is -1.967599, meaning that for every unit change in INSTMINT, the log of housing delivery (LnHDEL) decreases by 1.967599 units. The coefficient on INSTMEQU is 0.854182, meaning that LNHDEL increases by 0.854182 units for every unit change in INSTMEQU. The impact of changes in INSTMEQU on LNHDEL is delayed by one period, as indicated by the coefficient of the lagged value of INSTMEQU, which is -1.269763.

The findings indicate that the current values of LNHDEL, INSTMLOAN, INSTMINT, and INSTMEQU are influenced by their respective lagged values, or values from previous periods. INSTMLOAN is also found to have a positive impact on LNHDEL with a one- or two-period delay. The effect is minimal, though. INSTMEQU has a slight but positive influence on LNHDEL with a one-period lag, while INSTMINT has a slight but negative effect. The lagged values of each variable have a major influence on the current value of LNHDEL.

With an R-squared of 0.502050, the study reveals that independent variables account for half of the variation in housing delivery and almost 6% after controlling for degrees of freedom. The model's quality is indicated by an AIC value of 2.084242, and no signs of autocorrelation. It suggests that changes in institutional factors interacting with mortgage finance impact changes in housing delivery because the explanatory power is low, suggesting that institutional variables hinder mortgage finance's effectiveness in causing housing delivery.

Table 4:
Breusch-Pagan-Godfrey Heteroskedasticity Test

Null hypothesis: Homoskedasticity				
F-statistic	3.626388	Prob. F(8,7)	0.0534	
Obs*R-squared	12.88985	Prob. Chi-Square(8)	0.1157	
Scaled explained SS	2.071236	Prob. Chi-Square(8)	0.9787	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.391208	1.004316	0.389527	0.7085
LnHDEL(-1)	0.152072	0.099201	1.532969	0.1691
LnHDEL(-2)	-0.156937	0.117706	-1.333295	0.2242
INSTMLOAN	0.410490	0.196688	2.087015	0.0753
INSTMLOAN(-1)	-0.390402	0.158352	-2.465401	0.1431
INSTMLOAN(-2)	0.017756	0.007225	2.457459	0.1436
INSTMEQU	-0.388538	0.107911	-3.600535	0.2087

INSTMEQU(-1)	0.356661	0.153964	2.316516	0.1537
INSTMINT	-0.015040	0.242041	-0.062139	0.9522
R-squared	0.805616			
Adjusted R-squared	0.583462			

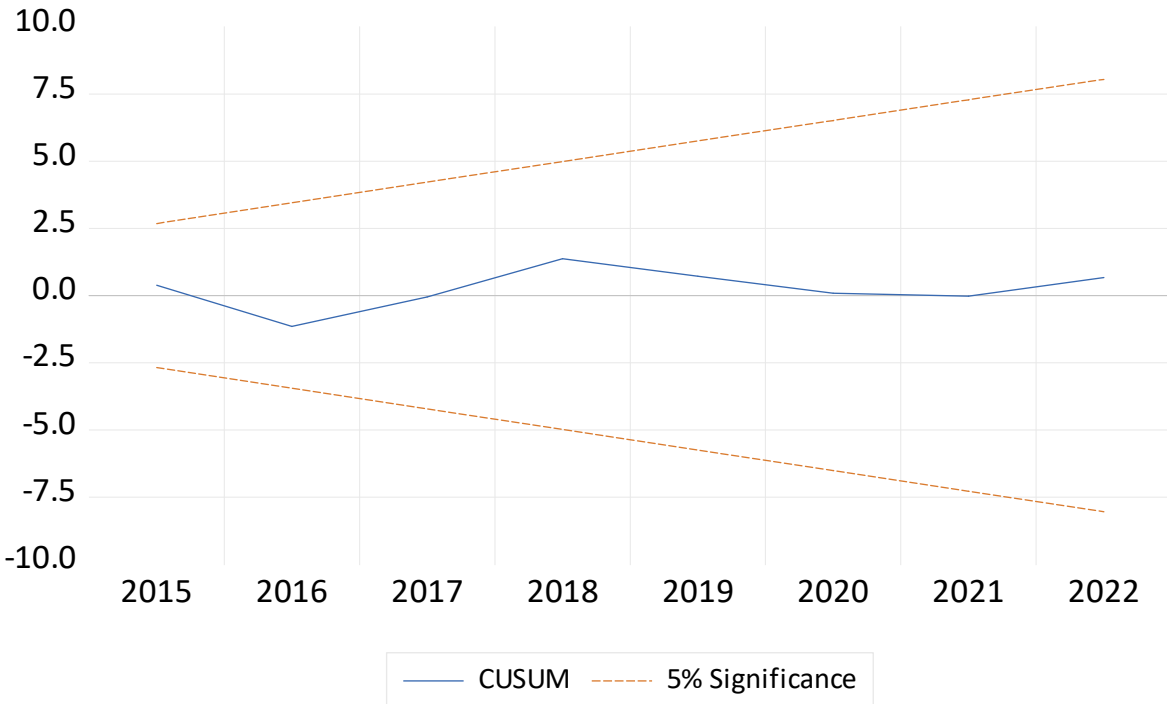
Source: Author’s computation (2025).

Table 4 presents result of the Breusch-Pagan-Godfrey test for model three, which test for heteroskedasticity. The null hypothesis in this test is that the errors are homoscedastic, meaning that the variance of the errors is constant across observations. The F-statistic is 3.626388 with a p-value of 0.0534. Since the p-value is above the typical significance level of 0.05, there is no strong evidence to reject the null hypothesis of homoskedasticity at the 5% significance level.

The p-value associated with the chi-square distribution is 0.1157, which is above 0.05 and indicates a lack of significance. The coefficient estimates in the test equation; LnHDEL(-1): 0.152072, LnHDEL(-2): -0.156937, INSTMLOAN: 0.410490, INSTMLOAN(-1): -0.390402, INSTMLOAN(-2): 0.017756, INSTMEQU: -0.388538, INSTMEQU(-1): 0.356661 and INSTMINT: -0.015040, suggest the relationships between the variables and the squared residuals. However, the interpretation of these coefficients in the context of the test for heteroskedasticity is not straightforward and primarily focuses on whether the overall test results reject the null hypothesis of homoskedasticity.

Therefore, based on the Breusch-Pagan-Godfrey test results, there is insufficient evidence to reject the null hypothesis of homoskedasticity at the 5% significance level. This suggests that the errors in the model may exhibit homoskedasticity, meaning that the variance of the errors is constant across observations.

Figure 1: CUSUM Test



Source: Author’s computation (2025).

In this study, the stability of the chosen ARDL model was tested using the cumulative sums of recursive residuals (CUSUM) stability testing. The technique was introduced by Brown et al. (1975). Figures 4.3 depict the CUSUM plots, respectively. The cumulative sum test was utilized to determine if the regression coefficients are systematically changing, while the cumulative sum of squares test was utilized to identify the possibility of sudden changes in the regression coefficients (Bhatti et al., 2006). The plots were evaluated at a 5 percent level of significance, and both remained within the critical bounds, indicating that the model is structurally stable. Therefore, we concluded that there is no structural break, and the parameters are stable.

Discussion

The research reveals a positive relationship between mortgage finance and housing development in Nigeria, with increased access to mortgage loans promoting housing delivery, a finding consistent with that of Laura, et al (2023), Kioko (2020), and Okolie and Erhijakpor (2020). However, this effect is delayed, suggesting that immediate benefits are not immediately reflected in housing development. Institutional factors, such as government effectiveness and corruption, have a predominantly negative effect on housing delivery, which aligns with the findings of Nataliya, et al (2023) and Osifalajo, Omotilewa and Adesola (2022). It however contravened the findings of Ekeocha, Ogbuabor, Ekeocha and Orji (2023), who found that the impact of institutional factors on aggregate performance is muted. This highlights the need for improved governance and addressing these issues to ensure the successful implementation of mortgage finance in Nigeria's housing sector.

The study indicates that improved governance and regulatory quality can improve housing development outcomes. However, past governance issues can persist, indicating a time-lagged response to improvements. While there is potential for institutional enhancements, the journey may be complex and requires sustained efforts to sail through. The ARDL long-run form and bounds test suggests there is no strong long-term relationship between variables, suggesting immediate interactions between mortgage finance and housing development are limited by structural challenges related to governance and institutional quality.

5.0 Conclusion

The x-ray of Nigeria's mortgage financing and housing development dynamics emphasizes its significance, including the interplay of institutional factors in conversations on mortgage finance. Institutional inefficiencies rob off the beneficial effects of mortgage financing on housing development, suggesting that a strengthened institutional framework and good governance is essential to enhancing the growth of the housing sector.

To reduce institutional weakness and encourage efficiency in the mortgage financing system, effective governance framework must be accorded top priority. This includes:

- i. Implementation of stringent anti-corruption measures, ensuring a more transparent mortgage loan application and approval process, and expediting bureaucratic processes.
- ii. Building of an integrated approach to housing development that incorporates not just financing but also institutions, several stakeholders, including government agencies, citizens, professionals and civil society organizations should work together to advocate for a reduced interest rate and improved equity contribution of residential housing development.

- iii. More studies should be conducted on how institutional dynamics affect mortgage financing and the results of housing development, to monitor frequently, the housing development response to policy modifications in response to changing housing challenges in Nigeria.

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