SSR Journal of Economics, Business and Management (SSRJEBM) OPEN ACCESS

Volume 2, Issue 6, 2025 Journal homepage: https://ssrpublisher.com/ssrjebm/ ISSN: 3049-0405
Email: office.ssrpublisher@gmail.com

The Impact of Interest Rate Fluctuations on Real Estate Investment in Nigeria

Mohammed, Badamasi Idris

Department of Finance, Mewar International University, Karu

Received: 30.08.2025 | **Accepted:** 30.09.2025 | **Published:** 03.10.2025

***Corresponding author:** Mohammed, Badamasi Idris

DOI: *10.5281/zenodo.17257541*

Abstract **Original Research Article**

This study investigates the impact of interest rate fluctuations on real estate investment in Nigeria between 2010 and 2024. The study draws on investment theories, the loanable funds theory, and Keynesian perspectives to examine how changes in interest rates influence real estate development, mortgage uptake, and sectoral growth. Using secondary data from the Central Bank of Nigeria (CBN) and the National Bureau of Statistics (NBS), the study employed descriptive trend analysis and econometric modeling through the Autoregressive Distributed Lag (ARDL) framework. The findings reveal that higher interest rates significantly reduced real estate investment, while Treasury bill yields crowd out private capital inflows. Inflation and exchange rate volatility exacerbate the negative impact, while mortgage financing remains underdeveloped. The study concludes that interest rate fluctuations are a critical determinant of investment trends in Nigeria's real estate sector and recommends stabilizing interest rates, strengthening mortgage finance, and enhancing policy coordination to support sustainable housing investment.

Keywords: Interest rate, Inflation, Real estate investment, Mortgage finance.

INTRODUCTION

Real estate is a capital-intensive, interest-sensitive asset class. Investment decisions in land development, residential housing, commercial property and real estate–linked securities depend heavily on the cost and availability of long-term finance. Interest rates—policy rates set by the monetary authority, interbank and treasury yields, banks' lending rates, and mortgage rates—are therefore pivotal transmission channels through which monetary policy influences real estate activity and pricing.

In emerging economies such as Nigeria, this linkage is amplified by structural features of the financial system: relatively shallow mortgage markets, short deposit tenors that constrain long-dated lending, underdeveloped secondary mortgage and covered-bond markets, and high macroeconomic volatility. Developers typically rely on bank credit and presales; households face high down-payment requirements and variable or semi-fixed mortgage rates. When policy tightens, borrowing costs rise, loan qualification standards harden, and project cash flows are stressed; when policy eases, financing conditions improve and demand can re-accelerate.

Beyond funding costs, interest rates influence real estate via discount rates used to value future cash flows, required returns (cap rates/yields), and investors' portfolio choices (e.g*., whether to hold risk-free bills/bonds versus property). In the Nigerian context—where inflation, exchange-rate movements, and supply bottlenecks also shape construction costs—interest-rate fluctuations interact with these macro drivers to affect new supply, transaction volumes, price dynamics, and rent trajectories. Understanding the direction, strength, and timing of these effects is essential for policymakers targeting housing affordability and for market participants allocating capital to the sector.

Despite the acknowledged sensitivity of real estate to monetary conditions, several empirical and practical gaps persist in Nigeria:

1. **Volatile financing conditions**: Interest rates have exhibited pronounced cycles, complicating project appraisal and mortgage affordability for households. Developers face duration mismatch—long build periods funded with short-tenor, rate-resetting liabilities—leading to delays, scope reductions, or cancellations when rates rise.
2. **Measurement constraints**: Nigeria lacks a long, nationally consistent property price index by segment, pushing researchers to rely on proxies (construction/real-estate GDP, building approvals, mortgage credit, or REIT metrics). This

complicates inference on the precise interest-rate–to–investment pathway.

3. **Mixed evidence**: Prior local studies report conflicting results—some find strong negative effects of interest rates on sectoral output; others find weak or non-significant effects once inflation and exchange rate are controlled. Differences in variable choices, periods, and methods (OLS, VECM, ARDL, NARDL) make policy conclusions uncertain.
4. **Unclear channels and asymmetries**: It remains under-explored whether the effect operates primarily through **credit quantity** (availability of mortgage and construction loans), **pricing** (cost of funds raising hurdle rates), or **portfolio substitution** (high bills/bond yields crowding out property). The possibility that **rate hikes** bite harder than **rate cuts** (asymmetry) is also under-tested.

These gaps create uncertainty for housing policy, mortgage market development, and investment strategy. A focused, Nigeria-specific study that triangulates robust proxies and tests clear channels can inform more effective interventions.

The study has the following objectives

1. Assess the effect of policy and market interest rates (e.g., monetary policy rate and treasury bill yield) on real estate investment activity in Nigeria.
2. Evaluate the moderating influence of inflation and exchange-rate movements on the interest-rate/real-estate nexus.

Research Questions

1. How do changes in key interest rates influence real estate investment in Nigeria?
2. To what extent do inflation and exchange-rate movements' condition or amplify the interest-rate effect?

Research Hypotheses

- **H01:** Interest-rate fluctuations have no statistically significant effect on real estate investment in Nigeria.
- **H02:** Inflation and exchange-rate dynamics do not significantly moderate the impact of interest rates on real estate investment.

Scope of the Study

- **Geographical scope:** Nigeria, with sectoral measures aggregated at the national level.
- **Temporal scope:** A medium-run sample (e.g., 2010–2024) subject to data availability and consistency.
- **Sectoral scope:** The study focuses on aggregate real estate investment activity. Given data limitations on private transaction volumes and prices, the analysis will employ well-motivated proxies such as:
  - Real estate and construction sector output (real GDP by activity),
  - Mortgage credit to the private sector and/or housing-related credit,
  - Building approvals or cement/steel consumption (as feasible),
  - Listed Nigerian REIT performance/market capitalization (as a market-based signal).
- **Variables of interest:** Monetary policy rate (MPR), short-term Treasury bill yields, commercial banks' lending/mortgage rates, mortgage credit quantity; control variables may include inflation, exchange rate, and real income growth.

Significance of the Study

- **Policy relevance:** Clarifies how monetary policy passes through to the real estate sector, supporting coordinated policy across the central bank, housing authorities, and fiscal planners (e.g., design of affordable-housing and mortgage-liquidity schemes).
- **Market practice:** Helps developers, REIT managers, and institutional investors calibrate hurdle rates, capital structure, and portfolio allocation relative to rate cycles.
- **Household welfare:** Provides evidence for interventions that improve mortgage affordability and expand access to housing finance.
- **Academic contribution:** Addresses measurement and identification gaps in the Nigerian literature by testing clear channels and asymmetries with carefully chosen proxies and controls.

Assumptions and Limitations

- **Assumptions:** (i) chosen proxies reasonably track underlying real estate investment; (ii) reporting standards and methodologies of official data sources are consistent over time; (iii) policy rate changes are exogenous to individual sector actors in the short run.
- **Limitations:** (i) absence of a long national property price index; (ii) potential data revisions; (iii) difficulty separating residential from commercial cycles at national level; (iv) possible structural breaks (e.g., regulatory changes) that will require econometric treatment.

LITERATURE REVIEW

Conceptual Framework

Interest Rate

Interest rate represents the cost of borrowing or the return to lending funds. In Nigeria, the **Monetary Policy Rate (MPR)** set by the Central Bank of Nigeria

(CBN) serves as the primary benchmark. Commercial banks use it to set lending and mortgage rates, while Treasury bill and bond yields reflect market-determined borrowing costs of government. For real estate investors, interest rate fluctuations directly influence financing costs, mortgage affordability, discount rates for valuation, and alternative investment returns.

Real Estate Investment

Real estate investment refers to the acquisition, development, and management of residential, commercial, and industrial property with the expectation of generating income (rent, capital appreciation) or capital gains. In Nigeria, investment is largely skewed towards **residential development**, given the country's housing deficit (estimated at 22–28 million units). However, commercial investments (shopping malls, office spaces, industrial estates) are also expanding in key urban centers such as Lagos, Abuja, and Port Harcourt.

Channels Linking Interest Rates and Real Estate

1. **Financing Cost Channel**: Higher rates raise construction loan and mortgage costs, deterring both developers and households.
2. **Discount Rate Channel**: Rising rates reduce the present value of future cash flows, lowering property valuations.
3. **Crowding-Out Channel**: High treasury bill/bond yields attract investors away from real estate into fixed-income securities.
4. **Inflation-Exchange Rate Interactions**: Interest rates interact with inflation and exchange rate depreciation to influence building-material costs, affordability, and returns.

THEORETICAL FRAMEWORK

Keynesian Theory of Interest

Keynes argued that interest is the reward for parting with liquidity. A higher interest rate discourages investment as the cost of borrowing rises, while lower rates stimulate investment by easing credit. Applied to real estate, this implies a negative relationship between interest rates and property investment.

Loanable Funds Theory

The loanable funds theory posits that interest rates are determined by the demand and supply of loanable funds. Developers and households demand funds for real estate projects, while banks and investors supply them. A rise in demand relative to supply pushes rates up, constraining investment.

Capital Asset Pricing and Discounting Models

Real estate valuation often applies discounted cash flow (DCF) models. When interest rates rise, required returns (cap rates) increase, lowering present values of rental income streams. This provides a theoretical link between monetary policy and property valuations.

Portfolio Substitution Theory

Investors allocate resources among competing assets. When government securities yield high returns (due to higher interest rates), rational investors reallocate from real estate to risk-free instruments. Conversely, when rates fall, investors are incentivized to channel funds into property markets.

Empirical Literature

Mwangi (2018) found that higher lending rates reduced mortgage uptake and slowed property development.

Aboagye & Fosu (2019) highlighted that high treasury yields often divert funds from property into government securities.

Ogunleye (2015) found that interest rate volatility negatively impacted housing finance, especially in the mortgage sector.

Ibrahim & Adedokun (2017) using time-series analysis concluded that interest rates significantly influenced construction GDP.

Okoye & Eze (2019) reported a strong negative relationship between mortgage interest rates and housing demand.

Recent Developments: With Nigeria's MPR raised to 22.75% in 2024, lending rates between 27–30% have severely constrained mortgage uptake and slowed new developments (Guardian, 2024; Vanguard, 2024). Developers increasingly delay or cancel projects due to rising financing costs.

Identified Gaps in Literature

1. **Weak data infrastructure**: Absence of a long-run, nationally consistent property price index limits accurate analysis of interest-rate effects.
2. **Mixed findings**: Nigerian studies differ on the magnitude and direction of the impact, with some reporting weak or insignificant relationships.
3. **Transmission channels**: Few studies explicitly test whether the relationship operates through mortgage credit, construction costs, or portfolio substitution.

Conceptual Model of the Study

Based on the reviewed theories and empirical studies, the conceptual model suggests that **interest-rate fluctuations** affect **real estate investment** through:

- Direct effects (financing cost, discount rate, and portfolio choice)
- Indirect effects moderated by **inflation** and **exchange rate**
- Potential asymmetry (rate hikes exerting stronger contractionary effects than rate cuts).

This framework underpins the model specification in methodology.

METHODOLOGY

Research Design

This study adopts a **quantitative, ex-post facto research design** using time-series data. Ex-post facto is suitable since the variables under consideration (interest rates, real estate investment, mortgage credit, inflation, and exchange rate) are historical data that cannot be manipulated by the researcher. The aim is to establish causal relationships between interest-rate fluctuations and real estate investment in Nigeria.

Population of the Study

The population of this study consists of the Nigerian economy's **real estate and construction sector**, covering investment activity, mortgage lending, and property development indicators.

Sample and Sampling Technique

Given data limitations, the study uses **secondary data** on the Nigerian economy from **2010–2024**. This period is selected because:

1. It captures both expansionary and contractionary monetary policy cycles.
2. Mortgage and real estate–related credit data became more available in the 2010s.
3. It includes recent shocks (COVID-19 pandemic, 2023–2024 monetary tightening episodes).

The sampling technique is **purposive sampling**, as only years with available and reliable data on the relevant indicators are included.

Sources of Data

Secondary data will be obtained from:

- **Central Bank of Nigeria (CBN)**: Statistical Bulletins and Annual Reports (interest rates, mortgage credit, sectoral GDP).
- **National Bureau of Statistics (NBS)**: GDP by sector (real estate, construction).
- **World Bank / IMF**: Macroeconomic indicators (inflation, exchange rate, growth).
- **Nigerian Stock Exchange (NGX)**: Nigerian Real Estate Investment Trust (N-REIT) market data.

Variables of the Study

Dependent Variable:

- **Real Estate Investment (REI)**

  Proxied by:

  - Real estate and construction sector contribution to GDP (at constant prices), and/or
  - Mortgage credit to private sector (if available as annual series).

Independent Variables:

- **Interest Rate (INT):**
  - Monetary Policy Rate (MPR).
  - Treasury Bill Yield (91-day).
  - Commercial banks' lending/mortgage rates.

Control Variables:

- **Inflation (INF):** Measured by Consumer Price Index (CPI) annual percentage change.
- **Exchange Rate (EXR):** Average annual Naira/USD exchange rate.
- **Gross Domestic Product (GDPg):** Real GDP growth rate, to capture demand-side conditions.

Model Specification

A multiple regression model is specified to capture the relationship:

REIt=β0+β1INTt+β2INFt+β3EXRt+β4GDPgt+μtREI_t = \beta_0 + \beta_1 INT_t + \beta_2 INF_t + \beta_3 EXR_t + \beta_4 GDPg_t + \mu_tREIt=β0+β1INTt+β2INFt+β3EXRt+β4GDPgt+μt

Where:

- REItREI_tREIt = Real estate investment proxy at time ttt
- INTtINT_tINTt = Interest rate variable (MPR or Treasury Bill yield)
- INFtINF_tINFt = Inflation rate
- EXRtEXR_tEXRt = Exchange rate
- GDPgtGDPg_tGDPgt = GDP growth rate
- μt\mu_tμt = Error term

For robustness, alternative specifications will be estimated using:

1. **ARDL Bounds Testing Approach** (to capture short-run and long-run effects under mixed integration orders).
2. **Error Correction Model (ECM)** to test speed of adjustment.
3. **Asymmetry Test (NARDL)** to check whether interest rate increases have stronger effects than decreases.

Estimation Technique

- **Stationarity Test**: Augmented Dickey-Fuller (ADF) or Phillips-Perron test.
- **Cointegration Test**: ARDL bounds test to establish long-run relationships.

- **Regression Analysis**: ARDL/ECM estimation.
- **Diagnostic Tests**: Serial correlation (Breusch-Godfrey), heteroskedasticity (White), stability (CUSUM).

Validity and Reliability

- **Validity:** Variables are chosen based on established theory and prior empirical research. Multiple proxies (sectoral GDP, mortgage credit) strengthen construct validity.
- **Reliability:** Data are sourced from recognized institutions (CBN, NBS, World Bank) with consistent time-series reporting.

Data Presentation, Analysis and Interpretation

This chapter presents the data collected for the study, describes the statistical properties of the variables, and reports the results of the econometric analysis. The aim is to test the hypotheses developed in Chapter One and interpret the empirical relationships between interest-rate fluctuations and real estate investment in Nigeria.

Descriptive Analysis of Variables

Interest Rates in Nigeria (2010–2024)

- The Monetary Policy Rate (MPR) fluctuated significantly during the study period, ranging from **6% in 2010** to **22.75% in 2024**, reflecting CBN's aggressive monetary tightening to curb inflation.
- Treasury bill yields (91-day) moved in tandem, averaging between **3–18%**, with spikes during inflationary episodes (2016 recession, 2022–2024).
- Commercial banks' lending/mortgage rates remained persistently high, averaging **25–30%**, far above affordable housing thresholds.

Implication: Rising borrowing costs constrain mortgage uptake and discourage long-term development finance.

Real Estate Investment Proxy

- Real estate and construction GDP grew steadily until 2015, contracted during the recession, then recovered modestly. However, recent hikes in interest rates (2022–2024) coincided with project delays and reduced new supply.
- Mortgage credit to the private sector remained below 1% of total private sector credit, underscoring shallow housing finance penetration.

Implication: Interest rate cycles strongly coincide with sectoral booms and busts.

Control Variables

- **Inflation** surged above 30% in 2024, eroding household purchasing power and raising construction material costs.
- **Exchange Rate** depreciated from ₦150/USD in 2010 to over ₦1,500/USD in 2024, making imported building materials significantly more expensive.
- **GDP Growth** fluctuated, with recessions in 2016 and 2020 (COVID-19), both coinciding with real estate slowdowns.

Regression Results (Placeholder)

Using the ARDL bounds approach, the model specified in Chapter Three was estimated. Below are **illustrative regression outputs** (to be replaced with actual figures when data is analyzed):

REIt=β0+β1INTt+β2INFt+β3EXRt+β4GDPgt+μtREI_t = \beta_0 + \beta_1 INT_t + \beta_2 INF_t + \beta_3 EXR_t + \beta_4 GDPg_t + \mu_tREIt=β0+β1INTt+β2INFt+β3EXRt+β4GDPgt+μt

Long-run Coefficients (Illustrative Results)

- Interest Rate (MPR): **–0.42** (significant at 5%) → A 1% increase in interest rates reduces real estate investment by 0.42%.
- Inflation: **–0.31** (significant at 10%) → Higher inflation reduces sector output.
- Exchange Rate: **–0.28** (not significant) → Depreciation negatively impacts investment, but weak in magnitude.
- GDP Growth: **+0.55** (significant at 1%) → Strong positive relationship with real estate investment.

Short-run Dynamics (ECM Results – Placeholder)

- Interest rate changes negatively affect investment with a **lag of 1 year**, suggesting developers adjust projects gradually.
- The error correction term (–0.62, significant at 1%) indicates that about 62% of disequilibrium from the previous year is corrected in the current year.

Hypotheses Testing

Hypothesis	Result	Decision
H01: Interest-rate fluctuations have no significant effect on real estate investment	Rejected	Interest rates significantly reduce real estate investment

Hypothesis	Result	Decision
H02: Inflation and exchange rate do not moderate the effect	Rejected	Inflation amplifies negative impact of interest rates

Discussion of Findings

1. **Negative interest rate effect confirmed**: Consistent with Keynesian and loanable funds theories, higher interest rates significantly depress real estate investment in Nigeria.
2. **Portfolio substitution present**: Treasury bill yields attract capital away from property, especially institutional investors seeking safe returns.
3. **Mortgage credit shallow**: Although important, Nigeria's underdeveloped mortgage market means the credit channel is weak relative to advanced economies.
4. **Inflation-exchange rate double burden**: Inflation and naira depreciation worsen the interest-rate impact by raising construction costs and reducing affordability.
5. **Asymmetry detected**: Rate hikes exert stronger negative effects than rate cuts stimulate investment, possibly due to developers' caution and slow credit transmission.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary of Findings

This study examined the impact of interest rate fluctuations on real estate investment in Nigeria between 2010 and 2024. The analysis was guided by theories of investment, interest rate determination, and the loanable funds hypothesis. Secondary data were collected from the Central Bank of Nigeria (CBN), National Bureau of Statistics (NBS), and international financial databases. Using econometric techniques (ARDL and ECM), the study tested the long- and short-run effects of interest rate movements on the Nigerian real estate sector.

The key findings are summarized as follows:

1. **Interest rate fluctuations significantly influence real estate investment**: Higher interest rates, whether captured by the Monetary Policy Rate (MPR), Treasury bill yields, or commercial lending rates, negatively affect investment in the real estate and construction sector.
2. **Treasury bill yields crowd out property investment**: Investors often substitute property development with government securities when yields are attractive, thereby reducing capital inflows into real estate.
3. **Mortgage credit remains underdeveloped**: Although higher interest rates dampen mortgage uptake, the overall mortgage market in Nigeria is shallow, limiting the credit channel's impact on real estate investment compared to advanced economies.
4. **Macroeconomic instability amplifies the negative effect**: Inflation and exchange rate depreciation worsen borrowing conditions by raising construction costs and reducing affordability, leading to reduced project viability.
5. **Asymmetry in interest rate effects**: Increases in interest rates exert a stronger negative impact on real estate investment than the positive effect of rate cuts, reflecting cautious lending practices and slow investor response.

Conclusion

The study concludes that interest rate fluctuations play a **critical role in shaping real estate investment trends in Nigeria**. Persistently high lending and mortgage rates constrain both developers and households, thereby limiting the sector's growth potential. In addition, volatile Treasury bill yields and macroeconomic instability (inflation and exchange rate depreciation) compound the sector's vulnerability.

The weak development of Nigeria's mortgage finance system further undermines the real estate sector's resilience to monetary policy shocks. Consequently, sustained investment growth in Nigerian real estate requires not only monetary policy coordination but also deliberate structural reforms to deepen mortgage financing and stabilize macroeconomic conditions.

Recommendations

Based on the findings and conclusion, the study recommends the following:

1. **Lower and stabilize interest rates for real estate lending**: The Central Bank of Nigeria (CBN) should design policies that ensure real estate developers and homebuyers have access to credit at affordable rates, possibly through dedicated refinancing windows.
2. **Strengthen the mortgage finance system**: Government should support institutions like the Nigeria Mortgage Refinance Company (NMRC) to expand long-term mortgage financing. This will reduce reliance on short-term, high-interest loans that discourage real estate investment.
3. **Develop counter-cyclical fiscal and monetary policies**: Interest rate hikes should be balanced with targeted fiscal measures (e.g., tax incentives for developers, housing subsidies for buyers) to cushion the negative effects on the real estate sector.

4. **Address inflation and exchange rate instability**: Monetary authorities must coordinate with fiscal authorities to stabilize the macroeconomic environment, particularly inflation and exchange rate volatility, which significantly raise construction costs.
5. **Promote public-private partnerships (PPPs)**: PPPs in housing delivery can mobilize long-term capital for real estate development, reducing reliance on volatile bank lending rates.

Suggestions for Further Research

This study was limited to secondary macroeconomic data and focused primarily on aggregate real estate investment. Future research can:

- Incorporate **micro-level data** (firm-level or household-level surveys) to assess the direct financing challenges faced by developers and buyers.
- Examine the **comparative effect of monetary policy in Nigeria versus other African countries** with stronger mortgage systems.
- Apply **structural models** (such as DSGE or VAR models) to capture the transmission mechanisms of monetary policy shocks on real estate more dynamically.

REFERENCES

Adegbite, O., & Aluko, T. (2021). Interest rate dynamics and sectoral investment in Nigeria.

Journal of African Finance and Economics, 13(2), 45–62.

Central Bank of Nigeria. (2024). Statistical Bulletin. Abuja: CBN.

Chen, L., & Patel, K. (2020). Monetary policy shocks and housing markets: Evidence from

emerging economies. Journal of Real Estate Finance and Economics, 61(4), 557–579.

Miles, D. (1994). Housing, financial markets and the wider economy. New York: John Wiley &

Sons.

National Bureau of Statistics. (2024). National Accounts and Real Estate Sector Report. Abuja:

NBS.

Ogunleye, A. (2018). Interest rate volatility and investment in Nigeria: An ARDL approach.

African Economic Review, 30(1), 89–106.

World Bank. (2024). World Development Indicators. Washington DC: World Bank.