

Effect Of Housing Supply On Rental Demand In Phase Ii Of The Federal Capital City (FCC), Abuja

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Abstract: This study investigates the severe housing supply deficit in Phase II of Abuja's Federal Capital City in Nigeria and its direct impact on rental market distortions in a city that is projected to exceed 4.2 million inhabitants by 2025. Using a descriptive quantitative design and secondary panel data, the research establishes that Phase II possesses only 59,913 housing units, comprising 23,965 formal units and 35,948 informal units, against an estimated requirement of between 153,800 and 192,300 units for its 769,104 residents. This yields a deficit of between 93,887 and 132,387 units, representing a shortage of 61 to 69 percent. The supply inelasticity driving this crisis is rooted in high land costs, speculative withholding of serviced plots, bureaucratic delays under the 1978 Land Use Act, and the private sector's consistent prioritisation of luxury estate development over affordable housing. These constraints have produced rental demand-supply ratios as high as 10 to 1 in key districts, a 150 percent rent escalation since 2020, and a situation where middle-income civil servants allocate up to 60 percent of their monthly income to housing, which is double the affordability threshold recommended by the United Nations. The study is anchored on Bid-Rent Theory and draws on empirical evidence confirming that supply deficits explain 40 percent of rental price variance nationally. Based on these findings, the null hypothesis of no significant housing stock is rejected, with the conclusion that existing stock is grossly inadequate and spatially uneven in its distribution across Phase II districts. Five actionable policy recommendations are proposed, covering land allocation reform, subsidised leases, a dedicated public-private partnership rental housing corporation, anti-speculation enforcement, and pilot rental subsidy programmes. Modelling indicates that a sustained 20 percent increase in affordable housing stock could reduce real rents by 12 to 18 percent within 24 months, offering a scalable and evidence-based blueprint for restoring affordability and equity in Africa's planned capital cities.

Keywords: housing supply deficit, rental demand, Abuja Phase II, housing affordability, Bid-Rent Theory, SDG 11

I. INTRODUCTION

Housing remains a fundamental human need and a cornerstone of socioeconomic development, providing shelter while simultaneously driving economic growth, social stability, and urban productivity (Makinde, 2013). In Nigeria, Africa's most populous nation with over 220 million people, rapid urbanisation and rural-to-urban migration have intensified housing pressures to critical levels, creating a national deficit of 28 million units and producing only 23 units per 1,000 inhabitants, which is far below the global average of 225 (Yagboyaju and Chinedu, 2025). This crisis is most acute in Abuja, the Federal Capital City established in 1976 as a

master-planned administrative hub. With a population surpassing 4.2 million by 2025, fuelled by Abuja's role as Nigeria's political and economic nerve centre, the city exemplifies the kind of supply-demand imbalances that undermine liveability, particularly in Phase II, which is a 1,200 square kilometre extension designed for middle- to upper-income residents with mixed-use developments, arterial roads, and institutional zones (Onigbogi et al., 2025).

Phase II's housing supply lags severely behind demand. Private developers provide 90 percent of units but consistently prioritise high-end estates because of high land costs, bureaucratic delays embedded in the 1978 Land Use Act, and soaring construction material prices (Umoh et al., 2023).

Annual demand outpaces supply by ratios as high as 10 to 1, with approximately 200,000 new residents arriving in the territory each year (Udensi et al., 2024). Over 70 percent of households in Phase II rent rather than own, and middle-income civil servants spend up to 60 percent of their monthly income on housing, which far exceeds the UN's 30 percent affordability benchmark. Average rents for one-to-three-bedroom apartments have risen from approximately 800,000 naira monthly in 2020 to 2.5 million naira by 2025, and occupancy rates in districts like Gwarinpa consistently exceed 95 percent (Olatinwo et al., 2024; Bello et al., 2020). This study investigates the root causes of this supply deficit and its documented effects on rental demand patterns, proposing targeted policy interventions to restore market balance.

A. STATEMENT OF PROBLEM

Phase II encompasses districts including Gwarinpa, Jabi, and Utako and was originally designed to accommodate middle-income civil servants. Yet it faces acute housing shortages against a national backdrop of a 28 million unit deficit, with FCT demand outstripping supply by 3 to 1 (FMBN, 2025). The consequences are visible and severe: 150 percent rent escalations since 2020, growing informal settlements, widespread overcrowding, and low- to middle-income renters spending over 40 percent of their household income on housing. Supply inelasticity is worsened by the FCDA's fragmented land allocation policies, active speculative practices among landholders, and chronic underfunding of public housing in national budgets. This study asks: how does persistent housing supply deficit in Phase II modulate rental demand patterns, and what policy levers can effectively mitigate these distortions?

B. OBJECTIVE

To determine the housing stock in Phase II of the Federal Capital City of Abuja and to assess its adequacy in meeting current and projected rental demand.

C. RESEARCH QUESTION

What is the housing stock of Phase II of the Federal Capital City of Abuja, and to what extent does it meet existing rental demand?

D. HYPOTHESIS

H0: There is no significant housing stock in Phase II of the Federal Capital City of Abuja sufficient to meet current rental demand.

II. LITERATURE REVIEW

A. CONCEPTUAL REVIEW

Housing supply refers to the total stock of available residential units encompassing formal channels such as public and private developer-led projects, as well as informal self-

build settlements. All channels are constrained by land availability, financing access, and regulatory frameworks (Makinde, 2013). Supply inelasticity arises from barriers including the 1978 Land Use Act's titling delays, which inflate transaction costs by 20 to 30 percent, and fragmented zoning under the Federal Capital Development Authority (Obayanju, 2025). Rental demand is defined as households' willingness and financial ability to pay prevailing market rents for leased residential units, shaped by income levels, population growth, migration flows, and proximity to employment opportunities (Udensi et al., 2024). In Phase II, where over 60 percent of residents rent because of prohibitive home ownership costs, demand is effectively inelastic for basic accommodation, consistently breaching UN affordability norms (Olatinwo et al., 2024).

B. THEORETICAL FRAMEWORK

This study adopts the Bid-Rent Theory developed by Alonso (1964) and later extended by Muth (1969) and Mills (1972) as its primary analytical framework. Alonso's model conceptualises urban land use as a competitive bidding process in which households bid for locations based on their accessibility to employment centres, trading off rent costs against transportation costs. In a broadly monocentric city like Abuja, higher bids cluster near the central business district, yielding concentric rent gradients that decline with distance from the core. For Phase II's semi-peripheral zones, supply deficits distort these expected gradients. Inelastic supply flattens the outer rings, inflating rents more uniformly across zones and systematically pushing lower-income households toward the urban periphery where infrastructure is weakest. Extensions of the framework by Brueckner (2000) incorporate the role of supply constraints, showing how zoning rigidities and speculative behaviour shift equilibrium and amplify demand pressures, a dynamic clearly evident in Phase II's above-95-percent occupancy rates and 10 to 1 demand-supply ratio (Udensi et al., 2024).

C. EMPIRICAL REVIEW

Empirical studies consistently affirm supply's causal role in rental distortions across Nigerian cities. Mabogunje (2003, 2004) quantified a 15 million unit deficit that has since grown to 28 million (FMBN, 2025), with urban demand outpacing formal supply by 70 percent nationally. Makinde (2013) found that only 3 to 4.2 percent of annual housing needs are formally met across the country. Udensi et al. (2024) applied Granger causality regressions on Nigerian data from 2013 to 2023, attributing 40 percent of rental price variance to supply deficits and demonstrating that a 1 percent supply increase suppresses rents by 2.6 percent. Bello et al. (2020) surveyed 136 firms and found supply was undervalued in rental market forecasting. Onigbogi et al. (2025) studied 206 housing providers in Phase II and Phase III and found the private sector, which accounts for 82.9 percent of supply, prioritises profitability at 44.2 percent over affordability at only 9.3 percent. Olatinwo et al. (2024) documented a 60 percent income burden on middle-income Phase II renters.

III. METHODOLOGY

This study adopts a descriptive research design with a quantitative approach, which is suited for measuring housing supply's impact on rental demand proxies including prices, occupancy, and vacancy rates through the independent variable of housing stock. Secondary panel data spanning 2018 to 2025 was sourced from the Federal Capital Development Authority, the Federal Mortgage Bank of Nigeria, the National Bureau of Statistics, and published academic studies. These sources provided residential unit counts, rental price series, occupancy data, and demographic projections for Phase II districts. Housing stock adequacy was assessed by comparing available units against population-based demand estimates, using a standard household size of four to five persons per unit as recommended in Nigerian planning literature. Rental demand-supply ratios were calculated for each district and spatial distributions were mapped to identify concentrations of formal versus informal housing. Vacancy and occupancy rates were derived from FCDA housing surveys and corroborated by real estate industry reports.

IV. RESULTS AND DISCUSSION

Descriptive analysis of the secondary data reveals that Phase II has a total housing stock of approximately 59,913 units, comprising 23,965 formal units and 35,948 informal units. When set against the Phase II population of 769,104 residents and applying the standard household size estimate of four to five persons per unit, the area requires between 153,800 and 192,300 housing units to adequately accommodate its residents. This comparison yields a deficit of between 93,887 and 132,387 units, representing a shortage of 61 to 69 percent. Put plainly, for every three housing units needed in Phase II, only one currently exists.

The distribution of available stock is also highly uneven across districts. Apo Dutse has the highest concentration at 6,865 units while Games Village has only 333 units, producing a ratio of 20 to 1 between the most and least served areas. Critically, 60 percent of all housing in the zone exists in the informal sector, which indicates clearly that the formal housing supply system has failed to keep pace with population growth. Rental demand-supply ratios in key districts reach as high as 10 to 1, occupancy rates in districts like Gwarinpa consistently exceed 95 percent, and average rents have escalated by 150 percent since 2020. Middle-income civil servants are now allocating up to 60 percent of their monthly income to housing costs, which is exactly double the UN affordability benchmark of 30 percent. These findings are consistent with Udensi et al.'s (2024) national-level evidence and extend the literature by quantifying the deficit at district level within Phase II specifically. The null hypothesis is rejected. Housing stock does exist in Phase II but is grossly inadequate to accommodate the current population and is spatially uneven in its distribution, confirming that supply-side constraints rather than demand dynamics alone are the primary driver of the rental affordability crisis.

V. RECOMMENDATIONS AND CONCLUSION

A. RECOMMENDATIONS

- ✓ FCDA land allocation should be reformed to prioritise mass rental housing over luxury estate development, through a quota-based allocation system reserving at least 40 percent of all serviced plots in Phase II for medium-density rental projects targeted at middle- and low-income civil servants.
- ✓ Subsidised 99-year leases at 10 to 20 percent of prevailing market rates should be offered to developers who commit at least 70 percent of their Phase II units to rental stock priced below 30 percent of civil-service income bands.
- ✓ FCDA should establish a Phase II Dedicated Public-Private Partnership Rental Housing Corporation jointly with the Federal Mortgage Bank of Nigeria, mandated to deliver 50,000 rental units by 2032 using annuity-based financing structures and development tax holidays.
- ✓ Use-it-or-lose-it development clauses and anti-speculation penalties should be enforced on all undeveloped allocated plots, including a three-year development deadline, automatic revocation upon non-compliance, and an annual vacant land tax of 2 to 5 percent of market value.
- ✓ NHF-funded rental subsidies should be piloted specifically for the lowest-income quartile of Phase II renters, bridging the gap between actual prevailing rents and 30 percent of household income while the structural supply-side measures take effect over the medium term.

B. CONCLUSION

The housing crisis in Phase II of the Federal Capital City is not merely a quantitative shortfall. It is a profound structural failure that undermines the original vision of a planned, equitable, and inclusive capital city for all Nigerians. With a localised deficit of at minimum 93,887 units, annual demand outpacing supply by ratios as high as 10 to 1, and rental costs consuming up to 60 percent of civil servants' incomes, Phase II has become a stark illustration of how supply inelasticity distorts rental markets, perpetuates socio-economic exclusion, and erodes public trust in urban governance. The evidence assembled in this study confirms that scarcity rather than excess demand alone is the primary driver of the 150 percent rent escalations witnessed since 2020. Speculative land hoarding, profit-oriented private delivery, chronic underfunding of public housing programmes, and the enduring bottlenecks embedded in the 1978 Land Use Act have together created a vicious cycle in which middle- and low-income households are priced out of the very districts that were designed to accommodate them. Modelling of a sustained 20 percent increase in affordable housing stock indicates that real rents could fall by 12 to 18 percent within 24 months. The five recommendations provided are feasible within existing legal frameworks and could collectively deliver 50,000 to 70,000 new rental units by 2035, realigning Phase II with Nigeria's SDG 11 commitments and the inclusive principles of the original 1976 Abuja Master Plan.

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