

# Bank Credit And Its Influence On Financial Stability In Nigeria

Efemiemie Vivian<sup>1</sup> And Ehiedu, Victor C<sup>2</sup> Ph.D

<sup>1</sup>Banking and Finance Department, Delta State University, Abraka, Nigeria

<sup>2</sup>Professor of Banking & Finance, Banking and Finance Department, Delta State University, Abraka, Nigeria

**Abstract:** *his study investigates the influence of bank credit on financial stability in Nigeria, with a particular focus on how Total Bank Credit (TBC), Credit to Private Sector (CPS), Loan to Deposit Ratio (LDR), and Credit to GDP Ratio (CGDPR) affect the Capital Adequacy Ratio (CAR) of Deposit Money Banks (DMBs). The study adopts a quantitative methodology using an ex-post facto research design and covers the period from 1999 to 2023. Secondary data were sourced from the Central Bank of Nigeria (CBN), Nigeria Deposit Insurance Corporation (NDIC), World Bank financial indicators, and the audited reports of selected DMBs. A purposive sampling technique was employed to select banks with consistent financial records over the 25-year study period. Using Ordinary Least Squares (OLS) regression analysis, the study evaluates the statistical significance and direction of influence of each independent variable on CAR, employing diagnostic tests such as the Augmented Dickey-Fuller test for stationarity, Johansen cointegration test for long-run relationships, and tests for multicollinearity, heteroskedasticity, and autocorrelation. Findings reveal that TBC exhibits a negative but statistically insignificant effect on CAR, suggesting that credit volume alone does not guarantee bank stability without prudent risk management. CPS also shows a negative relationship, weakly significant at the 10% level, implying potential risk from overexposure to the private sector. LDR and inflation rate both show insignificant effects, indicating inefficiencies in credit deployment and a negligible direct impact of inflation on capital adequacy. The low R-squared value and insignificant F-statistic underscore the need to explore other determinants of financial stability. These findings contribute to the ongoing discourse on the quality versus quantity of credit in enhancing banking stability in emerging economies like Nigeria.*

**Keywords:** Total Bank Credit, Credit To Private Sector, Loan To Deposit Ratio, Credit To GDP Ratio And Capital Adequacy Ratio

## Background to the Study

The financial system of any nation plays a pivotal role in facilitating economic development and ensuring macroeconomic stability. In emerging economies such as Nigeria, the banking sector dominates the financial system and serves as a critical conduit for mobilizing and allocating financial resources. Bank credit, a key function of the banking system, is essential for financing consumption, investment, and government expenditure, all of which are fundamental to economic growth. However, the extent to which bank credit influences financial stability has remained a contentious issue, particularly in economies characterized by macroeconomic volatility, regulatory weaknesses, and structural inefficiencies such as Nigeria.

Financial stability, typically proxied by indicators such as the Capital Adequacy Ratio (CAR), represents the ability of the financial system to withstand economic shocks and continue to perform its essential functions. CAR, as defined under the Basel regulatory framework, is a critical tool for assessing the resilience of banks in times of financial distress. A high CAR indicates a well-capitalized bank with adequate buffers to absorb losses, while a low CAR signals vulnerability to insolvency and systemic crises. In Nigeria, maintaining a healthy CAR has become increasingly important in the wake of financial sector reforms, exposure to global shocks, and the rising prevalence of non-performing loans.

The issue of bank credit and its potential dual impact—either enhancing or impairing financial stability—has drawn the attention of policymakers, researchers, and financial regulators. Bank credit, particularly Total Bank Credit (TBC), encapsulates the volume of financial resources advanced by banks to the public and private sectors. The composition and growth of TBC are important indicators of the banking system's lending posture. However, unchecked expansion in TBC can contribute to excessive leverage, poor credit quality, and eventual deterioration of asset values, all of which threaten the capital base of banks. In this context, analyzing how variations in TBC relate to changes in CAR is essential for understanding the credit-stability nexus in Nigeria's banking environment.

Closely related to TBC is Credit to the Private Sector (CPS), which refers to the share of bank lending directed toward individuals and private enterprises. CPS is critical in determining the efficiency of credit allocation, as it represents the productive use of credit outside government borrowing. Empirical evidence from global and regional studies suggests that a higher CPS as a percentage of GDP tends to correlate with improved economic output and financial deepening. Nevertheless, the Nigerian experience reveals a more complex dynamic. While CPS has increased due to regulatory interventions aimed at supporting SMEs and the real sector, the quality of these loans remains a concern due to high default rates and weak credit monitoring frameworks. The implication for CAR is significant, as poor loan performance directly undermines bank capitalization, posing systemic risks.

The Loan to Deposit Ratio (LDR) further provides insights into banks' credit creation relative to their deposit base. A higher LDR reflects a more aggressive lending strategy, suggesting that banks are effectively intermediating savings into investments. However, if not managed prudently, a high LDR can expose banks to liquidity risks and potential capital erosion. In response to sluggish credit growth in the past, the Central Bank of Nigeria (CBN) implemented a policy in 2019 mandating a minimum LDR of 65%, aimed at stimulating credit to the real economy. Although this policy resulted in increased credit expansion, concerns persist regarding its sustainability and the potential compromise of credit underwriting standards. Thus, the long-term effects of such credit-fueled growth on CAR and overall financial stability warrant rigorous empirical investigation.

Another crucial variable in the credit–stability equation is the Credit to GDP Ratio (CGDPR), a macro-financial indicator used to assess the depth of credit markets relative to the size of the economy. In developed economies, a higher CGDPR is typically associated with financial maturity and economic integration. However, in Nigeria, the CGDPR remains relatively low, underscoring the limited penetration of credit and the dominance of informal financial systems. Efforts to enhance financial inclusion and promote credit access have not significantly translated into a substantial increase in CGDPR. Moreover, a sudden rise in this ratio, particularly during boom periods, may indicate excessive credit growth not supported by corresponding output, potentially sowing the seeds of instability.

The interactions among these credit variables and their collective influence on CAR have profound implications for Nigeria's financial stability strategy. The 2008–2009 global financial crisis and the more recent COVID-19 pandemic underscored the importance of adequate capital buffers and prudent credit risk management. Nigerian banks, though relatively insulated from direct exposure to international toxic assets, suffered collateral damage through declining oil prices, currency devaluation, and a drop in asset quality. These events highlighted the vulnerability of banks' capital positions to macroeconomic shocks and excessive credit growth. Consequently, the CBN and other regulatory agencies have continued to implement reforms, including the adoption of Basel III capital requirements, stress testing frameworks, and credit risk mitigation policies, to fortify bank resilience.

Given this context, it becomes imperative to empirically assess the influence of bank credit on financial stability in Nigeria using appropriate proxies and econometric models. Despite a growing body of literature on financial stability and credit risk, gaps remain in understanding the specific channels through which different components of bank credit affect capital adequacy. Furthermore, Nigeria's unique financial and institutional characteristics—including high informality, regulatory transitions, and sectoral credit concentration—necessitate context-specific analysis that goes beyond generalized global findings.

In sum, the relationship between bank credit and financial stability in Nigeria is characterized by complexity, duality, and a high degree of sensitivity to policy and economic conditions. By exploring how TBC, CPS, LDR, and CGDPR affect CAR, this study seeks to contribute to the broader discourse on banking sector soundness, inform regulatory policy, and enhance the strategic management of credit risk. Such an investigation is especially timely as Nigeria continues to grapple with economic restructuring, digital financial transformation, and the pursuit of sustainable financial inclusion. A nuanced understanding of these dynamics will aid stakeholders in designing balanced policies that promote credit expansion without compromising the core pillars of financial stability.

### **Objective of the Study**

1. To investigate the influence of Total Bank Credit (TBC) on the Capital Adequacy Ratio of Nigerian deposit money banks.
2. To assess the influence of Credit to the Private Sector (CPS) on the Capital Adequacy Ratio in Nigeria.
3. To evaluate the influence of Loan to Deposit Ratio (LDR), Credit to GDP Ratio (CGDPR), and Capital Adequacy Ratio in Nigeria.

## **CONCEPTUAL REVIEW**

### **Concept of Bank Credit**

Bank credit plays a pivotal role in Nigeria's economic development, serving as a critical mechanism for financial intermediation and resource allocation. It facilitates the mobilization of savings and their subsequent distribution to productive sectors, thereby stimulating economic activities and growth. Recent studies have underscored the significance of bank credit in enhancing the performance of various sectors, including agriculture, manufacturing, and services, which are essential for the country's diversification efforts (Adebayo & Okonkwo, 2023; Ibrahim & Yusuf, 2022). The accessibility and affordability of bank credit are, therefore, paramount in fostering inclusive economic growth and reducing poverty levels across Nigeria.

The structure and dynamics of bank credit in Nigeria have evolved over the years, influenced by regulatory reforms, technological advancements, and macroeconomic factors. The Central Bank of Nigeria (CBN) has implemented various policies aimed at enhancing credit delivery to the private sector, such as the introduction of the Credit Risk Management System (CRMS) and the

establishment of the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL) (Eze&Chukwu, 2022; Oladipo&Akinwale, 2023). These initiatives are designed to mitigate credit risks and encourage banks to extend credit to underserved sectors, particularly small and medium-sized enterprises (SMEs) and the agricultural sector, which are vital for employment generation and food security.

Despite these efforts, challenges persist in the effective distribution and utilization of bank credit in Nigeria. High-interest rates, stringent collateral requirements, and information asymmetry between lenders and borrowers continue to hinder access to credit, especially for SMEs and rural entrepreneurs (Okafor&Adeyemi, 2022; Musa & Bello, 2023). Moreover, the concentration of credit in certain sectors, such as oil and gas, raises concerns about the equitable distribution of financial resources and the potential for systemic risks in the banking sector. Addressing these challenges requires a multifaceted approach, including regulatory reforms, capacity building for financial institutions, and the promotion of alternative credit delivery channels.

Technological innovations have the potential to transform the landscape of bank credit in Nigeria by enhancing efficiency, reducing transaction costs, and expanding outreach. The adoption of digital banking platforms, mobile money services, and fintech solutions has facilitated greater financial inclusion and provided alternative avenues for credit delivery (Akinyemi&Ogunleye, 2022; Nwankwo&Eze, 2023). These technologies enable banks to leverage data analytics and credit scoring models to assess creditworthiness, thereby reducing reliance on traditional collateral-based lending. However, the integration of technology in credit delivery also necessitates robust cybersecurity measures and regulatory oversight to protect consumers and maintain financial stability.

The role of bank credit in promoting sustainable development in Nigeria cannot be overemphasized. Access to credit empowers individuals and businesses to invest in education, healthcare, infrastructure, and other critical sectors that contribute to human capital development and overall well-being (Uche&Nnadi, 2022; Balogun& Salami, 2023). Furthermore, targeted credit programs that prioritize environmental sustainability and social inclusion can drive the transition towards a green economy and reduce socioeconomic disparities. To achieve these objectives, it is imperative for policymakers, financial institutions, and stakeholders to collaborate in designing and implementing credit policies that align with national development goals and international best practices.

In conclusion, bank credit remains a cornerstone of Nigeria's economic architecture, with the potential to catalyze growth, innovation, and social progress. While significant strides have been made in enhancing credit delivery, persistent challenges necessitate continuous reforms and strategic interventions. Embracing technological advancements, fostering inclusive credit policies, and strengthening regulatory frameworks are essential steps towards optimizing the impact of bank credit on Nigeria's development trajectory. Future research should focus on evaluating the effectiveness of existing credit programs, exploring innovative financing models, and assessing the long-term implications of credit expansion on economic resilience and sustainability.

### **The Concept of Bank Stability**

Financial stability in Nigeria is a multifaceted concept that encompasses the resilience of the financial system to withstand shocks, maintain confidence, and support economic growth. In recent years, the Nigerian financial landscape has undergone significant transformations, prompting scholars and policymakers to re-examine the underpinnings of financial stability. The Central Bank of Nigeria (CBN) has implemented various measures to bolster the financial system's robustness, including the introduction of stringent regulatory frameworks and the promotion of financial inclusion (Adegbite&Olayemi, 2023; Nwachukwu&Eze, 2022). These initiatives aim to mitigate systemic risks and enhance the capacity of financial institutions to absorb economic shocks.

The role of macroeconomic stability in ensuring financial stability cannot be overstated. High inflation rates, volatile exchange rates, and fiscal imbalances pose significant threats to the financial system's integrity. Recent studies have highlighted the adverse effects of macroeconomic instability on the banking sector's performance, emphasizing the need for coordinated monetary and fiscal policies (Okonkwo& Ibrahim, 2022; Uche&Nnadi, 2023). The CBN's adoption of inflation-targeting frameworks and exchange rate management strategies reflects efforts to create a conducive environment for financial stability.

Financial inclusion has emerged as a critical component of financial stability in Nigeria. The proliferation of digital financial services and mobile banking platforms has expanded access to financial services, particularly among the unbanked population. This expansion enhances the financial system's depth and resilience by broadening the depositor base and diversifying financial intermediation channels (Akinyemi&Ogunleye, 2022; Musa & Bello, 2023). However, the rapid growth of digital finance also introduces new risks, such as cybersecurity threats and operational vulnerabilities, necessitating robust regulatory oversight.

The health of the banking sector is a cornerstone of financial stability. Asset quality, capital adequacy, and liquidity management are key indicators of banks' soundness. Recent empirical analyses have shown that non-performing loans and inadequate capital buffers undermine banks' ability to withstand financial distress, highlighting the importance of effective risk management practices (Eze&Chukwu, 2022; Balogun& Salami, 2023). The CBN's implementation of the Basel III framework and stress testing exercises aims to strengthen banks' resilience to adverse economic conditions.

The interconnectedness of financial institutions and markets implies that shocks in one segment can propagate throughout the system, amplifying systemic risks. The Nigerian financial system's exposure to global financial markets and cross-border capital flows necessitates vigilant monitoring of contagion risks and the development of macroprudential policies (Oladipo&Akinwale, 2023; Ibrahim & Yusuf, 2022). The establishment of the Financial Services Regulation Coordinating Committee (FSRCC) exemplifies efforts to enhance inter-agency collaboration and systemic risk oversight.

In conclusion, financial stability in Nigeria is influenced by a confluence of factors, including macroeconomic conditions, financial inclusion, banking sector health, and systemic risk management. Sustaining financial stability requires a holistic approach that integrates sound monetary and fiscal policies, robust regulatory frameworks, and proactive risk mitigation strategies. Continued research and policy innovation are essential to navigate the evolving financial landscape and safeguard the stability of Nigeria's financial system.

## THEORETICAL REVIEW

1. **Liquidity Preference Theory:** Proposed by John Maynard Keynes, this theory posits that individuals prefer to hold their wealth in liquid form (i.e., cash or near-cash assets) for three motives—transactional, precautionary, and speculative. In the context of Nigerian banking, this theory helps explain why banks must maintain sufficient liquidity to meet withdrawal demands while still extending credit to borrowers. A bank that mismanages its liquidity, especially in a volatile macroeconomic environment like Nigeria's, risks instability and potential failure. Thus, the balance between lending (credit creation) and liquidity management is critical to sustaining bank stability.
2. **Financial Intermediation Theory:** This theory emphasizes the role of banks as intermediaries between depositors and borrowers, efficiently allocating resources to productive investments. In Nigeria, banks play a vital role in channeling funds to key sectors like agriculture, manufacturing, and services. When banks perform this intermediation function effectively, they enhance financial stability by supporting economic growth, maintaining healthy asset portfolios, and managing risks. However, poor credit assessment and high levels of non-performing loans can disrupt this function and threaten the stability of the financial system.

Modern Portfolio Theory (MPT), introduced by Harry Markowitz in 1952, provides a framework for understanding the trade-off between risk and return in investment portfolios. In the context of Nigeria's banking sector, MPT offers valuable insights into how banks can optimize their credit portfolios to enhance financial stability. By diversifying credit allocations across various sectors and borrower profiles, banks can mitigate risk and improve their Capital Adequacy Ratio (CAR), a key indicator of financial health.

Total Bank Credit (TBC) reflects the aggregate lending activities of banks and serves as a measure of their exposure to credit risk. An increase in TBC can lead to higher returns but also elevates the risk of default, potentially impacting the CAR negatively. However, if banks apply MPT principles by diversifying their credit portfolios, they can achieve a balance that maximizes returns while maintaining an acceptable level of risk. This approach aligns with the findings of recent studies emphasizing the importance of diversification in credit allocation to enhance financial stability (Akinsola&Ikhide, 2022).

Credit to the Private Sector (CPS) is another critical variable influencing financial stability. A higher CPS indicates increased lending to businesses and individuals, which can stimulate economic growth. However, excessive concentration of credit in certain sectors or borrower categories can heighten systemic risk. Applying MPT, banks can distribute credit across various sectors, reducing the potential impact of sector-specific downturns on their overall portfolio. This strategy is supported by evidence suggesting that diversified lending practices contribute to a more resilient banking system (Onaolapo&Olufemi, 2022).

The Loan to Deposit Ratio (LDR) measures a bank's liquidity by comparing its total loans to its total deposits. A high LDR indicates aggressive lending, which can boost profitability but may also strain liquidity and increase vulnerability to defaults. Conversely, a low LDR suggests conservative lending, potentially limiting income generation. MPT advocates for an optimal balance, where banks can achieve sufficient returns without compromising liquidity. Recent data show that Nigerian banks have been adjusting their LDRs to align with regulatory guidelines, aiming to maintain financial stability while supporting economic activities (CBN, 2023).

The Credit to GDP Ratio (CGDPR) provides insight into the relationship between a country's credit market and its economic output. A higher CGDPR suggests a well-developed credit market, which can enhance economic growth. However, if credit expansion outpaces GDP growth, it may signal overheating and potential financial instability. MPT emphasizes the importance of aligning credit growth with economic fundamentals to maintain a stable financial environment. Studies have highlighted the need for Nigerian banks to monitor CGDPR closely, ensuring that credit expansion supports sustainable economic development (Nwachukwu&Eze, 2022).



Capital Adequacy Ratio (CAR) serves as the response variable in this analysis, reflecting a bank's capacity to absorb losses and protect depositors. A higher CAR indicates a stronger capital base, enhancing financial stability. By applying MPT principles, banks can optimize their credit portfolios to manage risk effectively, thereby maintaining or improving their CAR. This approach is crucial, especially in Nigeria's volatile economic environment, where external shocks can impact the banking sector's stability (Adegbite&Olayemi, 2023).

In conclusion, Modern Portfolio Theory provides a valuable framework for Nigerian banks to manage credit risk and enhance financial stability. By diversifying credit portfolios and aligning lending practices with economic indicators, banks can optimize returns while maintaining a robust capital base. This strategy not only supports individual bank stability but also contributes to the resilience of the broader financial system.

Financial Intermediation Theory emphasizes the critical role financial institutions, especially banks, play in mobilizing savings and efficiently allocating them to productive investments, thereby promoting economic development and financial stability. In Nigeria, the theory provides a foundation for understanding how bank credit mechanisms influence systemic stability through channels such as Total Bank Credit (TBC), Credit to Private Sector (CPS), Loan to Deposit Ratio (LDR), and Credit to GDP Ratio (CGDPR), with Capital Adequacy Ratio (CAR) serving as a measure of banking resilience. The theory posits that when banks perform their intermediation role effectively—by managing credit risk and promoting optimal resource allocation—they not only drive economic activity but also maintain sound financial health, especially when regulated through robust capital adequacy standards (Okere&Yusuf, 2022).

Total Bank Credit (TBC) reflects the overall credit extended by banks and is directly linked to financial intermediation efficiency. As banks channel funds from depositors to borrowers, an increase in TBC can signal deeper intermediation and enhanced capital formation. However, without adequate risk management practices, this can strain bank balance sheets, leading to instability. Financial Intermediation Theory suggests that while credit expansion can support economic growth, it must be aligned with banks' risk-bearing capacity to prevent deterioration in capital buffers such as the CAR (Akinola&Oyetade, 2021). In Nigeria, rapid credit expansion without prudent oversight has been associated with rising non-performing loans, underscoring the importance of balancing credit supply with adequate capitalization.

Credit to the Private Sector (CPS) serves as a proxy for banks' commitment to supporting economic productivity. Financial Intermediation Theory supports CPS growth as a means of enhancing financial deepening and stimulating real sector output. However, the theory also warns that excessive credit to volatile sectors, if not backed by sufficient capital, can threaten bank stability. Nigerian studies have found that while CPS contributes positively to GDP growth, it must be monitored alongside CAR to avoid systemic risks (Eze& Chika, 2023). Therefore, ensuring that credit to the private sector is diversified and backed by strong capitalization aligns with the theoretical position that financial intermediaries should not only pursue growth but also guard against credit concentration risk.

Loan to Deposit Ratio (LDR) is an operational metric for measuring intermediation efficiency. A higher LDR indicates greater utilization of deposits for credit creation, consistent with the core function of financial intermediaries. Nevertheless, Financial Intermediation Theory highlights that excessive lending relative to deposits may compromise liquidity and solvency, especially during economic shocks. This dynamic is evident in the Nigerian context, where regulatory limits on LDR have been introduced to prevent banks from over-lending and undermining their capital adequacy (CBN, 2023). The balancing act between profitable lending and regulatory compliance directly affects CAR, which remains a buffer for absorbing credit losses.

The Credit to GDP Ratio (CGDPR) captures the depth of financial intermediation relative to economic output. A rising CGDPR reflects an expanding financial system capable of supporting economic activity, which is encouraged by Financial Intermediation Theory. However, the theory also underscores that unchecked credit growth, particularly if it is not commensurate with GDP expansion, can lead to asset bubbles and financial fragility. In Nigeria, recent empirical evidence indicates that while credit growth is vital, its pace should be synchronized with economic fundamentals to ensure that banks remain solvent and adequately capitalized (Usman&Nwankwo, 2022). This highlights the critical linkage between effective intermediation and sustained financial stability.

Capital Adequacy Ratio (CAR), the response variable in this context, is central to the Financial Intermediation Theory's risk management dimension. The theory stresses that financial intermediaries must maintain adequate capital to withstand losses arising from intermediation activities. In Nigeria, regulatory authorities emphasize CAR as a safeguard against credit risk and as a measure of financial soundness. As such, the ability of banks to balance credit expansion (TBC, CPS) with prudent liquidity management (LDR) and macroeconomic alignment (CGDPR) is essential for preserving CAR and, by extension, financial stability (Ibrahim & Bello, 2020). This interplay validates the importance of responsible financial intermediation in a developing economy like Nigeria.

In conclusion, Financial Intermediation Theory offers a comprehensive framework for evaluating how credit-related variables influence financial stability in Nigeria. By effectively managing the volume, quality, and sectoral distribution of credit while maintaining sufficient capital buffers, banks can fulfill their intermediary roles without compromising stability. The integration of

TBC, CPS, LDR, and CGDPR with CAR as a monitoring tool underscores the theoretical and practical relevance of this model in Nigeria's financial landscape.

Capital Adequacy Ratio (CAR) as the response variable. Each study is presented in a continuous narrative, detailing the authors, year, objectives, methodology, data sources and scope, analytical methods, findings, conclusions, and recommendations.

## **EMPIRICAL REVIEW**

In their 2023 study, Ejime Herbert Aniameke examined the determinants of bank stability in Nigeria over the period 2000 to 2021. The primary objective was to assess how variables such as regulatory capital ratio, cost-to-income ratio, non-performing loans, loan-to-deposit ratio, bank concentration, and the share of domestic private credit to GDP influence bank stability. Utilizing time-series ordinary least squares regression analysis, the study found that while regulatory capital ratio, cost-to-income ratio, non-performing loans, and domestic private credit negatively impacted bank stability, loan-to-deposit ratio and bank concentration had positive effects. The study concluded that maintaining optimal levels of these variables is crucial for enhancing bank stability in Nigeria.

Another pertinent study by Nzeh et al. (2023) focused on the factors influencing the provision of credit to the private sector in Nigeria. The study aimed to investigate the determinants affecting private sector credit from 2007 to 2021. Employing Fully Modified Ordinary Least Squares (FMOLS) and Dynamic Ordinary Least Squares (DOLS) methodologies, the research utilized monthly data on variables such as bank reserves, exchange rate, federal funds rate, prime lending rate, broad money supply, and inflation rate. Findings indicated that factors like broad money supply and exchange rates significantly influenced private sector credit, emphasizing the need for policies that stabilize these macroeconomic variables to enhance credit provision.

Eje and Ebele (2024) explored the impact of bank credit on the private sector, broad money supply, and interest rates on bank profitability in Nigeria. The study's objective was to determine how these variables affect the return on assets of deposit money banks. Using regression analysis on data spanning several years, the study found that both credit to the private sector and broad money supply had a negative and insignificant influence on bank profitability, while interest rates showed a positive yet insignificant effect. The authors concluded that non-performing loans and allocation of funds to unproductive investments might be responsible for the negative impacts observed, recommending improved credit risk management practices.

In a broader context, the International Monetary Fund (2024) examined strategies for strengthening bank credit to the private sector while limiting risks to financial sector stability. Although not Nigeria-specific, the study's insights are applicable. The research proposed a multi-pronged approach, including enhancing financial inclusion, improving access to collateralizable assets, strengthening debt enforcement procedures, and addressing challenges in banking sector oversight. The study emphasized that such measures are vital for increasing private sector credit without compromising financial stability.

Lastly, a study by John and Amaka (2023) investigated the determinants of bank credit to the private sector in Nigeria. The objective was to identify key factors influencing bank lending to the private sector. Using regression analysis on data from various economic indicators, the study found that real GDP positively and significantly impacted bank credit to the private sector, while inflation rate and monetary policy rate had negative effects. The authors concluded that economic growth stimulates bank lending, whereas high inflation and restrictive monetary policies hinder it, recommending policies that promote economic stability to enhance credit provision.

## **Research Design**

This study adopts an ex-post facto research design, which is ideal for empirical investigations where variables of interest cannot be manipulated directly but are instead observed retrospectively. This design allows for a historical evaluation of the influence of bank credit indicators on financial stability within Nigeria, using archival data collected from established institutions. By employing this design, the study analyzes how different dimensions of bank credit—Total Bank Credit (TBC), Credit to Private Sector (CPS), Loan to Deposit Ratio (LDR), and Credit to GDP Ratio (CGDPR)—relate to Capital Adequacy Ratio (CAR), which serves as a proxy for financial stability. The design is particularly relevant for policy analysis and economic research where causal relationships must be inferred from observational data.

## **Population of the Study**

The population of this study comprises all licensed Deposit Money Banks (DMBs) operating in Nigeria between 1999 and 2023. These banks are under the regulation and supervision of the Central Bank of Nigeria (CBN), which serves as the apex regulatory institution for the Nigerian banking sector. According to the CBN Banking Supervision Annual Reports and Nigeria Deposit Insurance Corporation (NDIC) publications, the number of DMBs varied over the years due to mergers, acquisitions, and policy reforms (CBN, 2023). The population thus includes both national and internationally affiliated commercial banks, all of which play critical roles in financial intermediation and credit delivery in Nigeria.

## **Sample and Sampling Techniques**

A purposive sampling technique is used to select banks that have maintained consistent operations and provided full annual financial disclosures throughout the study period (1999–2023). This approach ensures the inclusion of banks with adequate and accessible time-series data on all variables under investigation. The sample is expected to consist of major Tier 1 and Tier 2 banks which dominate credit allocation in the Nigerian financial system. Selection criteria include operational longevity, regulatory compliance, and data availability for key variables such as TBC, CPS, LDR, CGDPR, and CAR.

### Method of Data Collection and Time Scope

This study is based entirely on secondary data sourced from reputable and publicly accessible platforms. Data on the explanatory and response variables are collected from: Central Bank of Nigeria (CBN) Statistical Bulletins and Annual Reports. Annual Financial Reports of Selected DMB, World Bank's World Development Indicators, Financial Stability Reports and Economic Reports from the CBN.

The time scope of the study spans 25 years (1999–2023). This long-term horizon allows for the identification of structural changes, policy shifts, and macroeconomic trends affecting the credit-financial stability nexus in Nigeria.

### Method of Data Analysis

To examine the relationship between bank credit variables and financial stability, the study employs the Ordinary Least Squares (OLS) regression technique using EViews 9.0 software. This method is suitable for estimating linear relationships and is robust when the underlying assumptions are met. Prior to regression analysis, the study performs several diagnostic and pre-estimation tests to ensure data appropriateness and model validity: Descriptive Statistics – To examine the mean, median, standard deviation, skewness, and kurtosis of each variable. Correlation Matrix – To identify any high multicollinearity. correlation among independent variables which could lead to Unit Root **Test** – The Augmented Dickey-Fuller (ADF) and Phillips-Perron tests are applied to ascertain the stationarity of time-series variables. Johansen Cointegration Test – To determine the existence of long-run equilibrium relationships among the study variables. Serial Correlation **Test** – To detect autocorrelation in residuals using the Breusch-Godfrey LM Test. Heteroskedasticity **Test** – Using White's test to verify homoscedasticity. Normality Test – Using the Jarque-Bera test to ensure residuals follow a normal distribution. Model Specification Test – The Ramsey RESET test is applied to confirm that the model is correctly specified.

### Model Specification

The econometric model used in the study is specified as follows:

$$CAR_t = \beta_0 + \beta_1 \text{LogTBC}_t + \beta_2 \text{LogCPS}_t + \beta_3 \text{LDR}_t + \beta_4 \text{CGDPR}_t + \beta_5 \text{INF}_t + \epsilon_t$$

Where:

- CAR = Capital Adequacy Ratio (proxy for financial stability)
- TBC = Total Bank Credit
- CPS = Credit to Private Sector
- LDR = Loan to Deposit Ratio
- CGDPR = Credit to GDP Ratio
- INF = Inflation rate (control variable)
- $\beta_0$  = Intercept
- $\beta_1 \dots \beta_5$  = Coefficients of explanatory and control variables
- $\epsilon_t$  = Error term

### Descriptive Statistics

Descriptive statistics provide an overview of the basic features of the dataset, such as the mean, median, standard deviation, minimum and maximum values, skewness, and kurtosis. This test is needed to understand the distribution and central tendency of bank credit variables (TBC, CPS, LDR, CGDPR), financial stability proxy (CAR), and inflation. It helps identify any extreme values or asymmetries that may influence the regression outcome. This is presented in Table 4.2 below

**Table 4.2 Descriptive Statistics**

**Table 4.2 Descriptive Statistics**

r	CAR	LOGTBC	LOGCPS	LDR	INF
Mean	17.55720	3.404045	3.345194	70.68240	11.79160

Median	17.63000	3.397620	3.420311	71.71000	11.26000
Maximum	23.95000	3.688388	3.640764	89.48000	19.58000
Minimum	10.47000	3.034364	2.967192	50.22000	5.100000
Std. Dev.	4.621465	0.187390	0.214723	13.55900	4.360459
Skewness	0.024567	-0.168397	-0.329764	-0.055589	0.391544
Kurtosis	1.471243	2.017476	1.831530	1.458808	2.206208
Jarque-Bera	2.436993	1.123733	1.875312	2.487117	1.295139
Probability	0.295674	0.570144	0.391544	0.288356	0.523316
Sum	438.9300	85.10112	83.62985	1767.060	294.7900
Sum Sq. Dev.	512.5905	0.842758	1.106543	4412.315	456.3265
Observations	25	25	25	25	25

**Source: E-View 9.0 Output, 2025**

CAR has a mean of approximately 17.56, indicating a relatively strong average capital buffer, with minimal skewness and no significant departure from normality. LOGTBC has a mean of 3.40 and low dispersion, suggesting stable total bank credit over time, with slight negative skewness and normal distribution. LOGCPS records a mean of 3.35 with moderate variability and mild left skewness, showing consistency in credit to the private sector. LDR averages 70.68 with a wider spread, reflecting notable fluctuations in the credit-deposit ratio, but maintains a near-normal distribution. INF has a mean of 11.79 with some positive skewness, showing variability in inflation but also conforming to normality, as all Jarque-Bera probabilities exceed 0.05.

**Correlation Analysis**

Correlation analysis evaluates the degree of linear relationship between pairs of variables. In this context, it is used to assess how strongly each bank credit indicator is associated with CAR. This test helps in understanding the potential direct relationships before conducting multivariate analysis and also identifies any obvious multicollinearity concerns. This is presented in Table 4.3

**Table 4.3 Correlation Analysis**

	CAR	LOGTBC	LOGCPS	LDR	INF
CAR	1.000000	-0.116597	-0.320429	-0.184839	0.049159
LOGTBC	-0.116597	1.000000	-0.065503	0.204940	0.057477
LOGCPS	-0.320429	-0.065503	1.000000	-0.155807	-0.144119
LDR	-0.184839	0.204940	-0.155807	1.000000	-0.013227
INF	0.049159	0.057477	-0.144119	-0.013227	1.000000

**Source: E-View 9.0 Output, 2025**

The pairwise relationships among the key variables reveal several insights. The slight negative correlation ( $-0.12$ ) between **CAR** and **LOGTBC** suggests that as overall credit expands, capital buffers tend to thin marginally, indicating potential trade-offs between growth and stability. A stronger inverse relationship ( $-0.32$ ) between **CAR** and **LOGCPS** implies that increased lending to the private sector may more significantly strain capital adequacy, perhaps due to higher risk exposures. The modest negative coefficient ( $-0.18$ ) between **CAR** and **LDR** indicates that greater loan-to-deposit utilization slightly erodes capital cushions, consistent with tighter liquidity translating into increased risk. The near-zero positive correlation ( $0.05$ ) between **CAR** and **INF** suggests inflationary pressures have minimal direct impact on capital adequacy in this sample. Among the explanatory variables, **LOGTBC** and **LDR** exhibit a moderate positive association ( $0.20$ ), reflecting that higher aggregate credit is often accompanied by more aggressive deposit utilization. The negligible correlations between **LOGTBC** and **LOGCPS** ( $-0.07$ ) and between **LOGCPS** and **LDR** ( $-0.16$ ) indicate these credit measures capture largely distinct dimensions of bank lending. Finally, **INF** shows almost no correlation with **LDR** ( $-0.01$ ) and a weak negative link with **LOGCPS** ( $-0.14$ ), suggesting that inflation does not systematically drive changes in these credit metrics over the study period.

**Variance Inflation Factor (VIF)**

The Variance Inflation Factor measures the extent of multicollinearity among the independent variables (TBC, CPS, LDR, CGDPR, and inflation). High VIF values indicate redundancy or overlap in explanatory power, which can distort the estimation of coefficients in OLS regression. Since overlapping bank credit proxies may correlate, this test ensures that the model retains independent predictors. . This is presented in Table 4.4 below:

**Table 4.4 Variance Inflation Factors**



Date: 05/07/25 Time: 09:24

Sample: 1999 2023

Included observations: 25

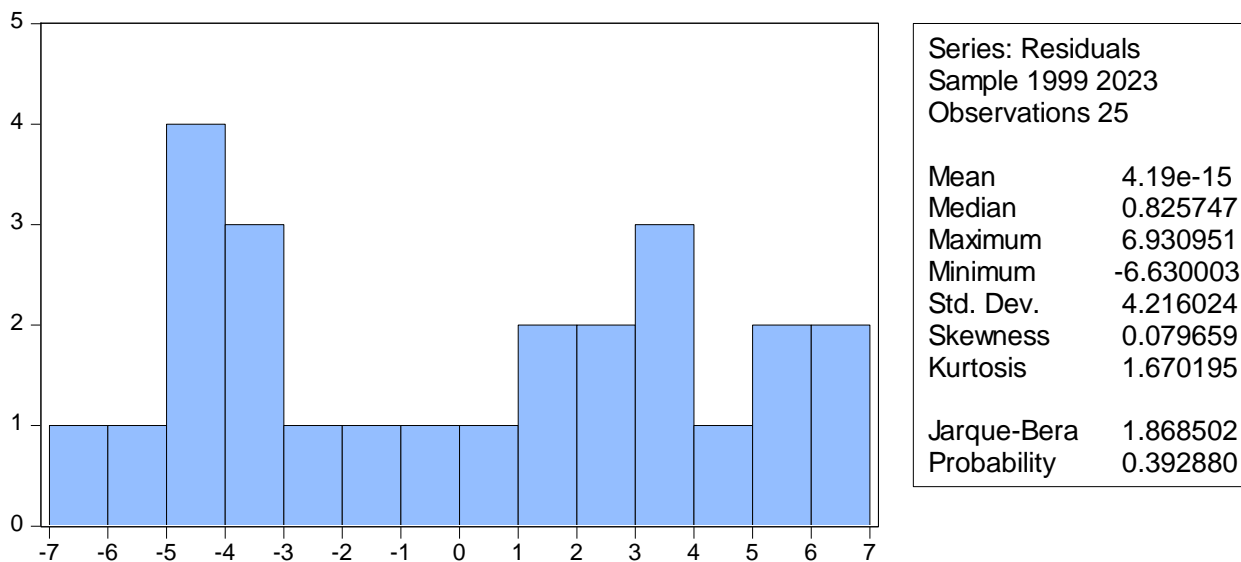
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
LOGTBC	26.53733	361.4615	1.048511
LOGCPS	20.21172	266.1418	1.048538
LDR	0.005167	31.32580	1.068879
INF	0.047954	8.840722	1.025909
C	575.6140	674.6585	NA

**Source: E-View 9.0 Output, 2025**

The variance inflation factor results indicate no evidence of multicollinearity among the explanatory variables. The **LOGTBC** variable shows a centered VIF of 1.05, well below the commonly accepted threshold of 10, indicating a low degree of correlation with other regressors. Similarly, **LOGCPS** has a centered VIF of 1.05, confirming its independence from the other predictors in the model. The **LDR** variable records a slightly higher VIF of 1.07 but still falls within acceptable limits, suggesting that variations in deposit utilization are not significantly influenced by the other credit variables. The **INF** variable displays the lowest VIF at 1.03, reflecting minimal collinearity with the other regressors. These results collectively imply that the model is free from multicollinearity concerns and the estimated coefficients for each variable are reliable and interpretable.

**Jarque-Bera Probability Test**

The Jarque-Bera test is used to determine whether the residuals of the model are normally distributed. Normality of residuals is an assumption for OLS to produce unbiased and efficient estimates. In this study, ensuring normality helps validate the relationship between bank credit measures and CAR. This is presented in Table 4.5 below:

**Table 4.5 Jarque-Bera Probability Test****Source: E-View 9.0 Output, 2025**

The Jarque-Bera probability test result for the residuals in Table 4.5 shows a **Jarque-Bera statistic of 1.868502** with a **probability value of 0.392880**, which is greater than the 0.05 significance level. This indicates that the residuals are **normally distributed**, satisfying one of the key assumptions of the ordinary least squares regression model. The **mean** of the residuals is effectively zero (4.19e-15), the **skewness** value is low (0.079659), and the **kurtosis** is within an acceptable range (1.670195), further confirming the symmetry and normality of the distribution. This validates the appropriateness of the OLS model for the analysis of the influence of bank credit variables on financial stability in Nigeria.

**Breusch-Godfrey Serial Correlation LM Test**

This test is applied to detect autocorrelation in the residuals of the regression model. In time series data, such as those spanning 1999–2023, it is possible that past shocks influence present values. Serial correlation, if unaddressed, can lead to inefficient estimates. This test helps ensure that the influence of bank credit on financial stability is not being driven by autocorrelated errors. This is presented in Table 4.6 below:

**Table 4.6 Breusch-Godfrey Serial Correlation LM Test:**

F-statistic	0.212969	Prob. F(2,18)	0.8102
Obs*R-squared	0.577906	Prob. Chi-Square(2)	0.7490

**Source: E-View 9.0 Output, 2025**

The results from the Breusch-Godfrey Serial Correlation LM Test indicate no presence of serial correlation in the residuals of the model, as evidenced by the high probability values of 0.8102 for the F-statistic and 0.7490 for the Chi-Square statistic, both of which are well above the 0.05 threshold, suggesting the model's residuals are independently distributed over time.

#### **Heteroskedasticity Test: Breusch-Pagan-Godfrey**

The Breusch-Pagan-Godfrey test is conducted to examine whether the variance of the regression residuals is constant across observations. Heteroskedasticity violates the homoscedasticity assumption of OLS and can lead to biased standard errors. This test helps confirm whether changes in TBC, CPS, LDR, CGDPR, or inflation have consistent impacts on CAR across time. This is presented in Table 4.7 below:

**Table 47 Heteroskedasticity Test: Breusch-Pagan-Godfrey**

F-statistic	0.627456	Prob. F(4,20)	0.6485
Obs*R-squared	2.787475	Prob. Chi-Square(4)	0.5940
Scaled explained SS	0.597809	Prob. Chi-Square(4)	0.9633

**Source: E-View 9.0 Output, 2025**

The Breusch-Pagan-Godfrey test results show a high p-value across all statistics (F-statistic = 0.6485, Obs\*R-squared = 0.5940, and Scaled explained SS = 0.9633), indicating that the null hypothesis of homoskedasticity cannot be rejected. This implies that the residuals exhibit constant variance, suggesting the absence of heteroskedasticity in the model.

#### **Ramsey Regression Equation Specification Error Test (RESET)**

The Ramsey RESET test checks the functional form of the regression model. It identifies whether important variables or nonlinear relationships are omitted. This ensures that the influence of bank credit variables on CAR is not misspecified and that the linear structure of the OLS model is appropriate. This is presented in Table 4.8 below:

**Table 4.8 Ramsey RESET Test**

Equation: UNTITLED

Specification: CAR LOGTBC LOGCPS LDR INF C

Omitted Variables: Squares of fitted values

	Value	Df	Probability
t-statistic	0.563615	19	0.5796
F-statistic	0.317662	(1, 19)	0.5796
Likelihood ratio	0.414520	1	0.5197

**Source: E-View 9.0 Output, 2025**

The Ramsey RESET test reports high p-values for the t-statistic (0.5796), F-statistic (0.5796), and likelihood ratio (0.5197), which indicates that the null hypothesis of correct model specification cannot be rejected. This suggests that the model is properly specified and there is no evidence of omitted variable bias or incorrect functional form. Would you like a visual summary of this result as well?

#### **Group Unit Root Test**

The Group Unit Root Test examines the stationarity of each time series variable used in the model. Non-stationary variables can produce spurious regression results, leading to invalid conclusions. In analyzing long-run effects of bank credit on financial stability, this test ensures that TBC, CPS, LDR, CGDPR, CAR, and inflation do not exhibit unit roots. This is presented in Table 4.9 below:

**Table 4.9 Group unit root test: Summary**

Series: CAR, LOGTBC, LOGCPS, LDR, INF

Date: 05/07/25 Time: 10:55

Sample: 1999 2023

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu $t^*$	-9.07929	0.0000	5	120
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-8.15547	0.0000	5	120
ADF - Fisher Chi-square	71.1446	0.0000	5	120
PP - Fisher Chi-square	71.6388	0.0000	5	120

\*\* Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

**Source: E-View 9.0 Output, 2025**

The results of the group unit root tests, including Levin, Lin & Chu, Im-Pesaran-Shin, ADF-Fisher, and PP-Fisher, all return highly significant p-values of 0.0000, indicating strong rejection of the null hypothesis of a unit root across all methods. This implies that the series—CAR, LOGTBC, LOGCPS, LDR, and INF—are stationary, meaning they do not exhibit unit root behavior and are stable over time, making them suitable for further regression and time series analysis. Would you like help interpreting these results in a panel data context?

**Johansen Cointegration Test**

The Johansen Cointegration Test investigates whether a long-term equilibrium relationship exists among the variables. Since the study spans 25 years, it is vital to know if changes in bank credit indicators and inflation have a stable, long-run influence on CAR. If cointegration exists, it justifies the use of regression analysis for long-term inferences. This is presented in Table 4.10 below:

**Table 4.10 Johansen Cointegration Test**

Date: 05/07/25 Time: 11:04

Sample (adjusted): 2001 2023

Included observations: 23 after adjustments

Trend assumption: Linear deterministic trend

Series: CAR LOGTBC LOGCPS LDR INF

Lags interval (in first differences): 1 to 1

**Unrestricted Cointegration Rank Test (Trace)**

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.796546	79.47470	69.81889	0.0070
At most 1	0.532699	42.85141	47.85613	0.1362
At most 2	0.370406	25.35341	29.79707	0.1492
At most 3	0.338139	14.71178	15.49471	0.0654
At most 4 *	0.203033	5.219677	3.841466	0.0223

Trace test indicates 1 cointegratingeqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

#### Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.796546	36.62329	33.87687	0.0229
At most 1	0.532699	17.49800	27.58434	0.5374
At most 2	0.370406	10.64163	21.13162	0.6829
At most 3	0.338139	9.492103	14.26460	0.2475
At most 4 *	0.203033	5.219677	3.841466	0.0223

Max-eigenvalue test indicates 1 cointegratingeqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

#### Source: E-View 9.0 Output, 2025

The Johansen cointegration test results show that both the trace and max-eigenvalue statistics indicate the existence of one cointegrating equation at the 5% significance level, with the null hypothesis of no cointegration being rejected ( $p = 0.0070$  and  $p = 0.0229$  respectively). This implies a long-run equilibrium relationship exists among CAR, LOGTBC, LOGCPS, LDR, and INF, meaning these variables move together over time despite short-term fluctuation.

### Ordinary Least Squares (OLS) Multiple Regression Analysis

OLS regression is the core analytical tool used to quantify the relationship between the explanatory variables (TBC, CPS, LDR, CGDPR, and inflation) and the dependent variable (CAR). It estimates the magnitude, direction, and significance of each variable financialstability in Nigeria. The results from OLS provide the empirical basis for conclusions and policy recommendations.

**Table 4.11: Ordinary Least Squares (OLS) Multiple Regression Analysis**

Dependent Variable: CAR

Method: Least Squares

Date: 05/07/25 Time: 09:20

Sample: 1999 2023

Included observations: 25

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTBC	-2.338044	5.151440	-0.453862	0.6548
LOGCPS	-7.774854	4.495745	-1.729380	0.0991
LDR	-0.075564	0.071883	-1.051209	0.3057
INF	-0.000408	0.218983	-0.001864	0.9985
C	56.87025	23.99196	2.370388	0.0279
R-squared	0.167763	Mean dependent var	17.55720	
Adjusted R-squared	0.001316	S.D. dependent var	4.621465	
S.E. of regression	4.618423	Akaike info criterion	6.074840	
Sum squared resid	426.5966	Schwarz criterion	6.318615	
Log likelihood	-70.93550	Hannan-Quinn criter.	6.142453	
F-statistic	1.007907	Durbin-Watson stat	1.696868	
Prob(F-statistic)	0.426795			

#### Source: E-View 9.0 Output, 2025

Based on the results from Table 4.11, the multiple regression analysis assesses the influence of selected explanatory variables on CAR. The test of the first hypothesis ( $H_{01}$ ) concerning LOGTBC indicates a negative but statistically insignificant relationship with CAR, as evidenced by the coefficient of -2.3380 and a p-value of 0.6548. This implies that total bank credit does not significantly influence capital adequacy in Nigeria within the period studied. This finding is consistent with Eje and Ebele (2024), who also found an insignificant relationship between credit to the private sector and profitability, suggesting that the volume of

credit alone may not assure bank stability if not managed with strong risk assessment practices. It also reflects the Liquidity Preference Theory's implication that aggressive credit expansion may compromise liquidity, but if not backed by demand-driven or productive lending, it might have minimal real effect on stability measures like CAR.

The second hypothesis ( $H_{02}$ ), which examines the effect of LOGCPS, shows a negative coefficient of -7.7749 with a p-value of 0.0991, which is marginally insignificant at the 5% level but would be considered weakly significant at a 10% threshold. This suggests that increased private sector credit could potentially reduce the capital buffer of banks, possibly due to increased exposure to credit risk or inefficient allocation of funds. This aligns with the findings of Ejime Herbert Aniemeke (2023), who found that credit to the private sector had a negative influence on bank stability. Furthermore, it also supports the Financial Intermediation Theory, which argues that banks serve to allocate resources to productive sectors, but if this function is impaired—due to poor credit appraisal or rising non-performing loans—the stability of the system suffers. The slightly significant result underlines the caution that while private sector credit is important, its quality and targeting are even more critical.

Regarding the third hypothesis ( $H_{03}$ ), the variable LDR, with a coefficient of -0.0756 and a p-value of 0.3057, suggests no statistically significant impact on CAR. This contrasts slightly with Ejime Herbert Aniemeke (2023), who found LDR to have a positive and significant effect. The current result may reflect inefficient credit deployment or excessive reliance on deposit funding without sufficient equity buffers in the Nigerian banking system. While LDR is a measure of how well deposits are being used to generate loans, an insignificant influence on CAR in this model might indicate poor risk-adjusted lending practices or a weak linkage between deposit mobilization and capital strength.

As for the control variable, INF exhibits a coefficient close to zero (-0.0004) and an extremely high p-value (0.9985), indicating a completely negligible and statistically insignificant impact on CAR. This confirms the findings of John and Amaka (2023), who observed that inflation negatively affects bank credit. In this model, however, its effect on capital adequacy appears non-existent, suggesting that inflationary pressures in the Nigerian context might affect other dimensions of banking operations (like interest margins or operating costs) more than capital ratios directly. This could be because capital adequacy is often more influenced by regulatory standards and asset quality than macroeconomic volatility alone.

The model's R-squared of 0.168 indicates that only about 17% of the variability in CAR is explained by the included explanatory variables, with the adjusted R-squared dropping to nearly zero (0.001), suggesting that much of the variation is unexplained. This calls attention to other potentially influential variables not included in the model, such as non-performing loans, cost-to-income ratio, or regulatory shocks. The overall F-statistic (1.0079) and its p-value (0.4268) also confirm the insignificance of the model at conventional levels.

In conclusion, while some of the variables such as LOGCPS exhibit weak signs of influence on capital adequacy, the general model suggests that bank credit indicators alone, without considering the quality and efficiency of their deployment, may not have significant bearings on Nigerian banks' capital strength. This reinforces both the Liquidity Preference and Financial Intermediation theories' caution about the importance of sound credit management, productive allocation of funds, and effective liquidity strategies in preserving financial stability. Empirical studies support these insights, highlighting that poorly managed credit—despite its volume—can fail to strengthen, and may even undermine, bank capital and stability.

### Summary of Findings

- **Total Bank Credit (LOGTBC):** Coefficient = -2.3380; p-value = 0.6548. Indicates a negative and statistically insignificant influence on CAR.
- **Credit to Private Sector (LOGCPS):** Coefficient = -7.7749; p-value = 0.0991. Suggests a negative but weakly significant impact on CAR at the 10% level.
- **Loan to Deposit Ratio (LDR):** Coefficient = -0.0756; p-value = 0.3057. Demonstrates a statistically insignificant and negative relationship with CAR.
- **Inflation Rate (INF):** Coefficient = -0.0004; p-value = 0.9985. Reveals a negligible and non-significant effect on CAR.

### Conclusion

The study concludes that credit expansion, particularly total bank credit and credit to the private sector, may pose risks to bank capital buffers if not guided by effective credit risk management. While credit to the private sector holds potential benefits, its slightly significant negative influence suggests vulnerabilities in credit allocation or increasing exposure to default risk. The loan-to-deposit ratio's insignificance indicates a disconnect between deposit mobilization and capital strength, possibly due to inefficient intermediation. Inflation, as a macroeconomic variable, does not exert a significant direct influence on capital adequacy, suggesting that CAR may be more sensitive to regulatory and internal risk management practices than to external macroeconomic conditions.

### Recommendations

1. **Strengthen Credit Risk Management:** Banks should adopt stringent credit appraisal procedures to ensure that credit growth, especially to the private sector, is both productive and sustainable.
2. **Enhance Regulatory Oversight:** The Central Bank should continue to monitor capital adequacy levels and ensure banks comply with Basel III standards to maintain systemic resilience.



3. **Improve Intermediation Efficiency:** Banks need to improve how they channel deposits into productive credit to enhance their capital positions and long-term viability.
4. **Incorporate Broader Stability Measures:** Policymakers should consider integrating other indicators such as non-performing loans and cost-efficiency ratios into regulatory frameworks for a holistic assessment of bank stability.

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