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FUELING FINANCIAL FLOW: CENTRAL BANK CREDIT FACILITIES INFLUENCE IN SHAPING LIQUIDITY OF NIGERIAN COMMERCIAL BANKS

By

IHENYEN, Joel Confidence (PhD)¹; MACAULEY, Gilbert Banigo²; ORUH, Oyakemeagbegha³

^{1,2,3}Department of Accounting, Faculty of Management Sciences, Niger Delta University Wilberforce Island, Amassoma. Bayelsa State, Nigeria.



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Abstract

This study investigated the effect of Central Bank of Nigeria (CBN) credit facilities on the liquidity of Nigerian commercial banks over the period 2000 to 2023. Specifically, it examined how CBN loans and overdrafts influenced the liquidity ratio of banks. Secondary data were obtained from the Central Bank of Nigeria Statistical Bulletin and analyzed using descriptive statistics, unit root tests, and multiple regression analysis. The Augmented Dickey-Fuller (ADF) unit root test confirmed that the variables were stationary at first difference. The regression results revealed that CBN loans had a significant negative effect on bank liquidity (coefficient = -0.0756; p-value = 0.0044), while CBN overdrafts had no significant effect (coefficient = -0.0019; p-value = 0.9597). The findings suggest that excessive reliance on CBN loans may weaken the liquidity position of commercial banks, while overdrafts appear to have no meaningful influence. Based on these results, the study concluded that only CBN loans significantly affect liquidity and recommended that commercial banks strengthen internal liquidity management to reduce dependence on central bank support. It also recommended that the CBN review its credit policies to ensure they support financial stability without encouraging long-term dependency. These insights are valuable for policymakers, bank regulators, and financial institutions aiming to enhance the resilience of Nigeria's banking sector.

KEYWORDS: Credit Facilities, Liquidity Ratio, Financial Stability

1. INTRODUCTION

In every modern economy, the vibrancy of financial systems often determines the pace and stability of national development. Financial institutions, particularly commercial banks, serve as the primary conduit for capital mobilization and allocation, performing critical intermediation roles between surplus and deficit units (Cimon & Walton, 2024). A well-functioning banking sector is not only essential for maintaining macroeconomic stability but also for fostering private sector growth, reducing poverty, and facilitating investment. However, the capacity of these banks to perform effectively depends largely on their access to and management of liquidity. Liquidity, the ease with which assets can be converted into cash without significant loss in value, remains the lifeblood of banking operations. It ensures that banks can meet withdrawal demands, extend credit, and maintain confidence among depositors and investors. In developing economies like Nigeria, the liquidity of commercial banks is frequently threatened by macroeconomic volatility, regulatory

bottlenecks, poor infrastructure, and external shocks. Over the years, Nigerian banks have grappled with liquidity shortfalls driven by inconsistent monetary policies, inflationary pressures, exchange rate instability, and low consumer confidence (Muslthaq, 2023). These challenges often compel banks to adopt conservative lending practices, which in turn affect economic growth and financial inclusion (Boneva et al., 2022). The importance of maintaining adequate liquidity levels has therefore become a critical policy concern, drawing the attention of both regulatory authorities and financial institutions themselves.

As a response to liquidity-related challenges, central banks across the globe have assumed more proactive roles in stabilizing financial systems through the provision of credit facilities. Central bank credit facilities are policy instruments designed to inject liquidity into the banking system, typically during periods of financial stress or systemic shocks. These facilities act as a lender-of-last-resort mechanism, cushioning banks from short-term liquidity mismatches and enabling



them to meet operational demands without jeopardizing their solvency (Boneva et al., 2022). Such interventions not only stabilize individual banks but also help maintain public confidence in the financial system, preventing panic withdrawals and contagion effects. In Nigeria, the Central Bank of Nigeria (CBN) has deployed a variety of credit intervention schemes aimed at easing liquidity constraints and supporting the real sector. These facilities include but are not limited to the Standing Lending Facility (SLF), the Expanded Discount Window (EDW), and targeted intervention funds such as the Anchor Borrowers' Programme and the COVID-19 Targeted Credit Facility. These initiatives are intended to enhance the capacity of commercial banks to support economic growth by improving access to credit and ensuring stable liquidity conditions (CBN, 2021). The premise is that with adequate liquidity support from the central bank, commercial banks will be better positioned to lend to households, businesses, and the government.

The central bank's interventions, however, are not without debate. While proponents argue that such credit facilities stimulate economic activity and prevent liquidity crises, critics warn of the potential for moral hazard, market distortion, and overreliance on central bank support (Muslthaq, 2023). In the Nigerian context, there are concerns about the transparency, accessibility, and sustainability of these facilities. Additionally, questions linger regarding the actual impact of these interventions on the operational liquidity of banks. Are Nigerian commercial banks truly benefiting from these credit facilities in a way that significantly enhances their liquidity positions, or are these policies simply creating temporary reliefs with little long-term effect?

Empirical inquiries into the nexus between central bank credit interventions and banking sector liquidity in Nigeria remain sparse, fragmented, or largely anecdotal. Most available studies tend to focus on the broader impacts of monetary policy on financial performance, leaving a gap in understanding the direct influence of central bank credit facilities on liquidity management (Idris & Bawa, 2023; Okon & Zephaniah, 2022). As a result, policymakers are left with limited empirical evidence to assess the effectiveness of these tools in stabilizing the financial system. This calls for a more focused academic exploration that addresses the link between these facilities and the liquidity realities of commercial banks in Nigeria. Moreover, the financial ecosystem in Nigeria is undergoing significant transformation, driven by technological innovations, regulatory reforms, and global economic dynamics (Eleam et al., 2021). These changes are redefining traditional banking operations and the requirements for effective liquidity management. In this evolving context, the central bank's role in shaping the liquidity landscape of commercial banks becomes even more critical. Understanding how its credit facilities interact with these changes can provide insight into the broader trajectory of Nigeria's financial development. Against this backdrop, this study seeks to investigate the influence of Central Bank of Nigeria credit facilities on the liquidity of Nigerian commercial banks.

2. PROBLEM STATEMENT

Liquidity management remains one of the most critical challenges confronting commercial banks, particularly in emerging economies like Nigeria. The ability of a bank to meet its short-term obligations, fund credit operations, and maintain financial stability hinges significantly on its liquidity position. However, in recent years, the Nigerian banking sector has witnessed frequent liquidity pressures triggered by macroeconomic instability, fluctuating oil revenues, regulatory tightening, and limited access to long-term funding (Eleam et al., 2021). These recurring liquidity issues not only compromise the financial soundness of banks but also pose systemic risks to the broader economy. While liquidity risk is a universal banking concern, its intensity and consequences are often more pronounced in developing financial markets like Nigeria, where structural deficiencies and policy uncertainties abound. In response to these challenges, the Central Bank of Nigeria (CBN) has introduced several credit facilities aimed at providing liquidity support to banks and enhancing credit flows to the economy. These facilities, including the Standing Lending Facility (SLF), Real Sector Support Facility (RSSF), and the COVID-19 Targeted Credit Facility, are intended to act as buffers during periods of financial distress (Lawal et al., 2022). Despite the proliferation of these intervention mechanisms, liquidity crises persist among Nigerian commercial banks, suggesting a possible disconnect between the intended policy outcomes and the realities on ground. Furthermore, the effectiveness of these credit facilities in addressing core liquidity challenges in the sector remains underexplored in scholarly literature.

Several studies have examined the broader relationship between monetary policy and financial performance in Nigeria, often emphasizing interest rate adjustments, cash reserve ratios, and inflation targeting (Ngong et al., 2023; Emmanuel et al., 2022). However, there exists a noticeable gap in empirical research that specifically isolates the role of central bank credit facilities in influencing the liquidity profile of commercial banks. Most available studies tend to focus on monetary policy transmission channels or credit accessibility for SMEs, with limited attention to how these facilities directly impact the internal liquidity health of banks. This gap leaves policymakers with insufficient evidence on whether the credit support mechanisms employed by the central bank are achieving their core objective of liquidity stabilization.

Moreover, existing research often treats liquidity as a secondary outcome within larger models of financial performance, rather than as a central variable of interest. This tendency undermines the depth of understanding required to formulate targeted liquidity-enhancing policies. As a result, current policy prescriptions may be built on assumptions that are not entirely grounded in empirical realities, thereby reducing their effectiveness (Udoh et al., 2021). This study seeks to re-center liquidity as the primary focus, investigating how central bank interventions interact with bank-specific operations to either enhance or inhibit liquidity resilience. Additionally, concerns have been raised about the transparency, timeliness, and distributional fairness of CBN's

credit facilities. Anecdotal evidence suggests that access to these facilities may be skewed towards larger, more connected banks, leaving smaller institutions vulnerable to liquidity shocks (Anga et al., 2021). Yet, there is scant academic inquiry into how these disparities influence the overall liquidity landscape of the Nigerian banking system. By focusing on the aggregate influence of credit facilities on the sector, this study seeks to understand whether such interventions truly level the playing field or inadvertently widen liquidity gaps among commercial banks.

Furthermore, the dynamic nature of the Nigerian financial environment, marked by digital disruption, currency instability, and policy shifts, calls for continuous reassessment of monetary tools. With increasing calls for a more responsive and adaptive central banking framework, a deeper understanding of how credit facilities perform under changing economic conditions becomes imperative (Gazi, 2024). This study, therefore, positions itself at the intersection of policy evaluation and liquidity management, aiming to provide a timely contribution to the literature and practice of financial stability in Nigeria. In light of these issues, this study addresses a crucial gap by empirically investigating the influence of Central Bank of Nigeria's credit facilities on the liquidity of commercial banks.

Hypotheses

H₀₁: CBN loans have no significant effect on the liquidity of Nigerian commercial banks.

H₀₂: CBN overdrafts have no significant effect on the liquidity of Nigerian commercial banks.

3. LITERATURE REVIEW

Credit Facilities

Credit facilities for banks refer to various forms of financial support or borrowing arrangements extended primarily by central banks or other financial institutions to enhance the liquidity and operational capacity of commercial banks. These facilities serve as a vital tool in modern financial systems, enabling banks to access funds either on a short-term or long-term basis to meet their obligations, support lending activities, or weather periods of financial instability. In essence, credit facilities act as a safety net, especially during periods of liquidity crunch or systemic shocks, ensuring that the banking system remains solvent and functional (Mishkin, 2011). Historically, central banks have assumed the role of the lender of last resort, offering credit to commercial banks in times of distress to prevent systemic collapse. This function gained prominence during financial crises such as the 2007–2008 global financial meltdown, where central banks across the world deployed emergency credit facilities to stabilize their banking sectors (Bernanke, 2009). These credit mechanisms often include instruments such as repurchase agreements, discount window lending, standing lending facilities, and emergency liquidity assistance. The availability and design of such facilities are crucial in maintaining financial market confidence and safeguarding economic stability.

In the Nigerian context, the Central Bank of Nigeria (CBN) has instituted various credit facilities aimed at providing

liquidity and stimulating sectoral growth. Some of the notable credit schemes include the Standing Lending Facility (SLF), the Real Sector Support Facility (RSSF), and more recently, the COVID-19 Targeted Credit Facility. These facilities are tailored not only to meet the liquidity demands of banks but also to channel funds into critical sectors such as agriculture, manufacturing, and small and medium enterprises (CBN, 2021). By providing these funds at concessional rates and with flexible terms, the CBN aims to promote inclusive growth, financial stability, and macroeconomic development. Credit facilities typically vary in terms of maturity, interest rate, collateral requirements, and access conditions. For example, the Standing Lending Facility is designed for overnight borrowing by banks to meet short-term liquidity needs, often at a penal interest rate to discourage overreliance (CBN, 2020). On the other hand, facilities like the Real Sector Support Facility offer medium- to long-term financing to support investment in productive sectors. The diversity in the structure of credit facilities allows central banks to respond to different types of liquidity challenges, whether they be transient, structural, or sector-specific.

While the provision of credit facilities is generally seen as beneficial, it also raises several concerns. Critics argue that frequent and liberal access to central bank credit can encourage moral hazard, where banks may engage in risky behavior with the expectation of being bailed out. Moreover, poor oversight and lack of transparency in the allocation of these facilities can lead to inefficiencies, favoritism, or misappropriation (Allen & Gale, 2000). To mitigate these risks, central banks often implement stringent eligibility criteria, collateral requirements, and monitoring mechanisms to ensure that the facilities serve their intended purposes. Empirical literature underscores the importance of credit facilities in supporting bank liquidity and enhancing credit flow within the economy. Studies have shown that access to such facilities positively influences a bank's ability to extend loans, meet regulatory liquidity requirements, and manage funding costs (Diamond & Rajan, 2005). However, the effectiveness of credit facilities largely depends on the institutional framework, timeliness of intervention, and the prevailing economic environment. In countries like Nigeria, where macroeconomic volatility is frequent, well-structured credit facilities can act as a vital buffer for banks.

Liquidity Management

Liquidity management refers to the strategic planning, monitoring, and control of a financial institution's ability to meet its short-term obligations as they fall due, without incurring unacceptable losses. In the context of banking, it is the process by which a bank ensures it has adequate liquid assets—such as cash, reserves, or marketable securities to fulfill withdrawals, loan demands, and other financial commitments. Effective liquidity management is essential for sustaining public confidence, maintaining regulatory compliance, and supporting the overall stability of the financial system (Van Greuning & Bratanovic, 2009). Banks operate in a highly sensitive environment where unexpected deposit withdrawals, market shocks, or credit expansion can

lead to significant liquidity strain. As financial intermediaries, they rely on short-term liabilities (like customer deposits) to fund long-term assets (such as loans), making them inherently vulnerable to liquidity mismatches. Hence, banks must strike a balance between profitability and liquidity—ensuring they earn returns from lending while still retaining enough liquid assets to meet obligations at all times (Saunders & Cornett, 2019).

Liquidity management is guided by regulatory frameworks such as the Basel III liquidity standards, which introduced key ratios like the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR). These tools are designed to enhance the resilience of banks by ensuring they maintain sufficient high-quality liquid assets and a stable funding profile under both normal and stressed conditions (BIS, 2013). Central banks, through monetary policy tools and credit facilities, also play a vital role in supporting liquidity in the banking system, especially during times of economic distress. In practice, liquidity management involves forecasting cash flows, monitoring key liquidity indicators, setting internal limits, and developing contingency funding plans. Banks may use instruments such as interbank borrowings, repurchase agreements (repos), and central bank lending to manage liquidity gaps. They also invest in liquid securities that can be easily converted to cash if needed. These measures ensure that liquidity shocks do not escalate into solvency crises, thereby preserving the health of individual institutions and the financial system at large (Rose & Hudgins, 2012).

Liquidity Preference Theory

Liquidity Preference Theory, developed by the renowned economist John Maynard Keynes in his seminal work *The General Theory of Employment, Interest and Money* (1936), offers a foundational lens through which to understand the behavior of economic agents in relation to liquidity and interest rates. According to Keynes, individuals prefer to hold their wealth in liquid form primarily as cash unless compensated by an interest rate that justifies parting with liquidity. The theory posits that the demand for money is driven by three motives: the transaction motive (money needed for daily transactions), the precautionary motive (money held for unexpected needs), and the speculative motive (money held to take advantage of future investment opportunities when interest rates are more favorable). In the context of banking, this theory provides a compelling explanation for the liquidity behavior of commercial banks. Banks, like individuals, exhibit liquidity preferences that influence their asset allocation and lending decisions. Faced with uncertainties such as fluctuating interest rates, market volatility, and regulatory constraints, banks often choose to maintain a buffer of liquid assets. This behavior aligns with the precautionary and speculative motives described by Keynes. The speculative motive is particularly relevant, as banks may hold off on lending or investing in long-term assets if they anticipate more favorable conditions ahead (Mishkin, 2011).

Furthermore, Liquidity Preference Theory supports the rationale for central bank interventions, such as credit

facilities and monetary policy tools, in maintaining liquidity within the banking system. When the Central Bank of Nigeria (CBN) provides credit facilities to commercial banks, it effectively satisfies their liquidity preferences particularly in times of economic uncertainty or financial stress. These interventions help to ease liquidity constraints and reduce the need for banks to hoard cash, thereby encouraging lending and economic activity (Sanusi, 2010).

The theory also provides insight into how interest rates influence liquidity distribution in the financial system. According to Keynes, when interest rates are high, individuals and banks are more willing to invest and less inclined to hold onto liquidity. Conversely, when interest rates are low, liquidity preference increases as the opportunity cost of holding cash diminishes. This dynamic explains why central banks often lower interest rates and inject liquidity through credit facilities during economic downturns to stimulate spending and investment by reducing the appeal of holding idle cash (Bernanke, 2009). In the Nigerian banking sector, where financial shocks, policy uncertainty, and structural inefficiencies are prevalent, liquidity preference among commercial banks tends to be high. This cautious approach often results in restricted lending, especially to the private sector. By applying the Liquidity Preference Theory, the current study gains theoretical grounding to examine how central bank credit facilities can shift these preferences and enhance liquidity flow across the banking system. The theory implies that, with adequate incentives and assurances, banks may be more willing to relax their liquidity constraints and engage more actively in lending (CBN, 2021).

Prior Studies

Liquidity management had been a focal concern for financial institutions, particularly in developing economies where economic volatility and regulatory inconsistencies often exacerbated liquidity risk. Several studies in the Nigerian banking sector had demonstrated the pivotal role of liquidity in maintaining profitability and financial stability. For instance, Olagunju, David, and Obademi (2012) found a strong positive relationship between liquidity management and profitability among Nigerian banks, emphasizing that proper liquidity control helped in achieving operational efficiency. Similarly, Ibe (2013) utilized time-series data to establish that maintaining adequate liquidity levels significantly influenced the financial performance of Nigerian commercial banks. In a related study, Adesola and Okwong (2020) employed panel data and concluded that liquidity indicators such as cash ratio and current ratio had a positive effect on return on assets (ROA), underscoring liquidity as an important determinant of financial success. Additionally, Adeleke and Ogundipe (2017) corroborated these findings, revealing that banks that maintained optimal liquidity ratios tended to outperform their counterparts in terms of earnings, suggesting that strategic liquidity planning was indispensable for profitability.

Another cluster of research explored the systemic risks posed by poor liquidity management and how it influenced financial crises or credit risks. Agbada and Osuji (2013), in their

postmortem of the 2008 financial crisis in Nigeria, argued that inadequate liquidity risk management frameworks were partly responsible for the collapse of several banks during that period. They emphasized the need for robust internal controls and regulatory oversight. In a similar vein, Ene and Uchenna (2021) investigated the connection between liquidity and loan performance in Nigerian banks, and discovered that weak liquidity buffers often led to higher incidences of non-performing loans, as banks failed to meet short-term obligations. Meanwhile, Kassim and Salim (2022) studied how liquidity acted as a cushion between financial regulations and credit risks in African banks, concluding that institutions with strong liquidity strategies were more resilient to regulatory and credit shocks. These findings collectively suggested that liquidity management was not merely a matter of operational necessity, but a crucial risk mitigation tool capable of shielding banks from systemic vulnerabilities.

Research had also examined the balance between holding liquid assets and pursuing profitability, highlighting the trade-offs inherent in liquidity decisions. For example, Owolabi and Obida (2012) argued that Nigerian banks often hoarded excessive liquidity, prioritizing safety over lending, which ultimately stifled investment and economic growth. They observed that this cautious approach led to underutilization of financial resources. Adusei (2011) further developed this argument in the context of Ghanaian banks, noting a U-shaped relationship between liquidity and performance—indicating that both liquidity scarcity and excess had detrimental effects on profitability. Likewise, Ilhomovich (2009), in a comparative study of Malaysian and Indonesian banks, confirmed that although liquidity buffers reduced risk, they also constrained earning potential, especially in competitive lending environments. These studies suggested that optimal liquidity management involved a careful equilibrium between risk avoidance and profit maximization.

International empirical literature expanded the understanding of liquidity management beyond Nigeria and Sub-Saharan Africa. Bhunia (2012) conducted a study on Indian steel companies and found that firms with more conservative liquidity practices had stronger financial health and were better prepared for economic downturns. Similarly, Nguyen (2020) analyzed Vietnamese banks during recession periods and observed that those with well-structured liquidity policies exhibited faster recovery and sustained lending capacity. These global perspectives echoed the sentiments of Uremadu (2012), who evaluated Sub-Saharan African banks and concluded that regional financial institutions often faced structural liquidity constraints due to macroeconomic instability, poor fiscal coordination, and underdeveloped capital markets. These insights implied that effective liquidity management strategies needed to be contextualized within the unique economic, political, and institutional environments of each country.

Finally, a number of studies assessed the role of central banks and monetary authorities in enhancing liquidity in the banking sector. Okoye et al. (2017) found that the Central Bank of Nigeria (CBN)'s intervention tools such as standing lending

facilities, cash reserve requirements, and open market operations had significantly influenced the liquidity positions of commercial banks. Their research highlighted the importance of timely and well-targeted policy responses in mitigating liquidity shortfalls during economic stress. Yakubu and Affoi (2014) also identified a positive correlation between liquidity management and bank growth, noting that banks with strategic access to central bank facilities experienced faster expansion and improved public confidence. These findings aligned with global trends, as seen in Bernanke (2009), who described how liquidity injections from the U.S. Federal Reserve mitigated the effects of the 2008 global financial crisis.

4. METHODOLOGY

This study adopted an ex post facto research design, which was appropriate for analyzing historical data where variables could not be manipulated. The data covered a 24-year period from 2000 to 2023 and were obtained from secondary sources. The data were analyzed using multiple linear regression analysis to determine the effect of CBN credit facilities on the liquidity of commercial banks in Nigeria. Prior to the regression analysis, several pre-regression diagnostic tests were conducted to ensure the robustness of the model. These included the normality test (histogram normality test), and stationarity test (using the Augmented Dickey-Fuller unit root test). These tests were necessary to confirm that the data met the assumptions of the classical linear regression model. All analyses were carried out using EViews statistical software. The model was specified as follows:

$$LR = \beta_0 + \beta_1 CL + \beta_2 CO + \varepsilon$$

Where:

LR = Liquidity Ratio of commercial banks (dependent variable)

CL = CBN Loan (independent variable)

CO = CBN Overdraft (independent variable)

β_0 = Intercept term

β_1, β_2 = Coefficients of the independent variables

ε = Error term, accounting for other factors not included in the model

5. RESULTS, CONCLUSION, RECOMMENDATIONS

Descriptive Result

	LIQUIDITY_RA TIO	CBN_LO AN	CBN_OVERDR AFT
Mean	52.07623	187.3958	22.09551
Median	50.32500	30.65556	7.861876
Maximum	104.2024	997.1071	130.8752
Minimum	26.39276	0.000000	0.000000
Std. Dev.	16.61189	304.0719	33.44665
Skewness	1.295051	1.768897	2.009322
Kurtosis	5.458618	4.938148	6.368989

Jarque-Bera	12.75343	16.27241	27.49959
Probability	0.001701	0.000293	0.000001
Sum	1249.830	4497.500	530.2922
Sum Sq. Dev.	6346.961	2126574.	25729.60

Observations	24	24	24
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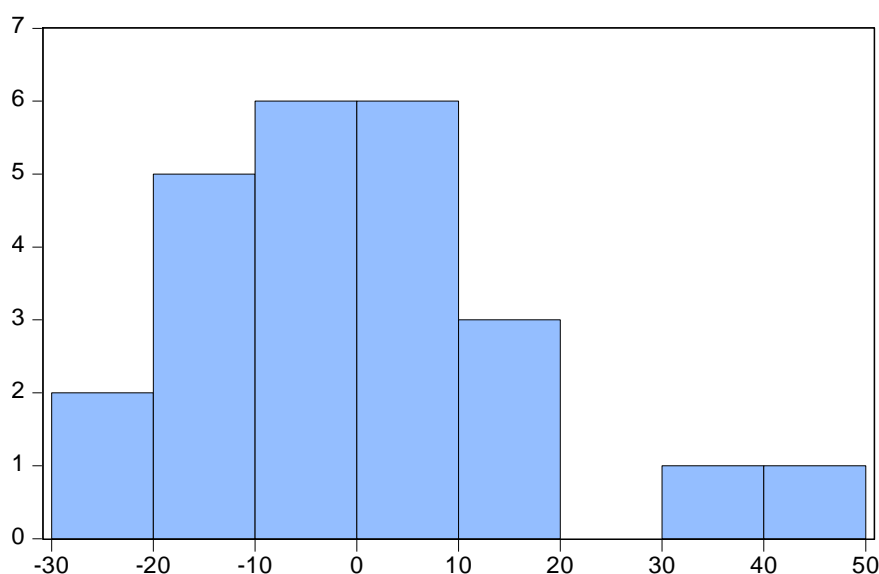
Source: Eviews 9.0

The descriptive statistics reveal key insights into the distribution and behavior of the variables used in the study. The mean liquidity ratio of Nigerian commercial banks was approximately 52.08%, indicating a moderate level of liquidity on average. However, the maximum and minimum values (104.20% and 26.39%, respectively) show considerable variation across the years, which is further

confirmed by a relatively high standard deviation of 16.61. The liquidity ratio is positively skewed (1.30) and leptokurtic (kurtosis = 5.46), suggesting the presence of outliers and a distribution that is more peaked than normal. The Jarque-Bera test statistic (12.75) with a p-value of 0.0017 indicates that the liquidity ratio does not follow a normal distribution at the 5% significance level.

For the independent variables, CBN Loan and CBN Overdraft also show substantial variation. The mean value of CBN Loan was 187.40, but the median was significantly lower (30.66), pointing to a right-skewed distribution (skewness = 1.77), and a very large standard deviation (304.07), suggesting wide fluctuations in the amount of credit extended by the Central Bank. Similarly, CBN Overdrafts had a mean of 22.10 and a standard deviation of 33.45, with a higher degree of skewness (2.01) and kurtosis (6.37), indicating a more extreme deviation from normality. Both variables failed the Jarque-Bera normality test at the 1% level, with p-values well below 0.05, confirming that the distributions are not normal.

Histogram Normality Result



Series: Residuals Sample 2000 2023 Observations 24	
Mean	-5.33e-15
Median	-1.079792
Maximum	49.31322
Minimum	-25.37844
Std. Dev.	16.36282
Skewness	1.198673
Kurtosis	5.025312
Jarque-Bera	9.849153
Probability	0.007266

The histogram of the residuals, based on data from 2000 to 2023 with 24 observations, indicates that the residuals deviate from a normal distribution. The distribution is positively skewed (skewness = 1.99), suggesting a longer right tail, and it is leptokurtic (kurtosis = 5.03), implying that the distribution is more peaked and has heavier tails than a normal distribution. The Jarque-Bera test statistic is 9.85 with a p-value of 0.0073, which is statistically significant at the 1% level.

Augmented Dickey-Fuller Unit Root Test Results (First Difference)

Variable	ADF Statistic	p-value	1% Critical Value	5% Critical Value	10% Critical Value	Lag Length
D(LIQUIDITY_RATIO)	-5.709407	0.0001	-3.769597	-3.004861	-2.642242	0
D(CBN_LOAN)	-4.178089	0.0040	-3.769597	-3.004861	-2.642242	0
D(CBN_OVERDRAFT)	-7.036425	0.0000	-3.788030	-3.012363	-2.646	

Source: Eviews 9.0

The Augmented Dickey-Fuller (ADF) unit root test results at first difference show that all three variables—

LIQUIDITY_RATIO, CBN_LOAN, and CBN_OVERDRAFT—are stationary after first differencing. For the LIQUIDITY_RATIO, the ADF statistic is -5.7094 with a p-value of 0.0001, which is significantly lower than all critical values at the 1%, 5%, and 10% levels. This implies that the null hypothesis of a unit root is rejected, and the variable is stationary at first difference. Similarly, CBN_LOAN has an ADF statistic of -4.1781 and a p-value of

0.0040, which is also below the 5% and 10% critical values, confirming its stationarity after differencing.

Likewise, CBN_OVERDRAFT recorded an ADF statistic of -7.0364 with a p-value of 0.0000, which is well below the 1% critical value of -3.7880, indicating a very strong rejection of the null hypothesis of non-stationarity. These results suggest that all variables are integrated of order one, I(1), meaning they became stationary only after first differencing.

Regression Result

Dependent Variable: LIQUIDITY_RATIO

Method: Least Squares

Date: 05/26/25 Time: 13:34

Sample: 2000 2023

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CBN_LOAN	-0.075582	0.023675	-3.192516	0.0044
CBN_OVERDRAFT	-0.001896	0.037072	-0.051143	0.9597
C	1.805751	0.039800	45.37054	0.0000
R-squared	0.395064	Mean dependent var		1.697342
Adjusted R-squared	0.337451	S.D. dependent var		0.131239
S.E. of regression	0.106825	Akaike info criterion		-1.518790
Sum squared resid	0.239641	Schwarz criterion		-1.371533
Log likelihood	21.22548	Hannan-Quinn criter.		-1.479723
F-statistic	6.857196	Durbin-Watson stat		1.180461
Prob(F-statistic)	0.005104			

Source: Eviews 9.0

The results reveal that CBN loan has a statistically significant negative effect on liquidity ratio, with a coefficient of -0.0756 and a p-value of 0.0044, which is significant at the 1% level. This indicates that as access to CBN loans increases, the liquidity ratio of banks tends to decrease, possibly suggesting overreliance on central bank credit could weaken banks' liquidity positions. Conversely, CBN overdraft has an insignificant effect on liquidity ratio, with a coefficient of -0.0019 and a p-value of 0.9597, indicating no meaningful relationship. The overall model is statistically significant with an F-statistic of 6.86 and a p-value of 0.0051, indicating that the independent variables, taken together, explain a significant portion of the variation in the liquidity ratio. The R-squared value of 0.3951 suggests that about 39.5% of the changes in the liquidity ratio are explained by variations in CBN loan and overdraft facilities. The Durbin-Watson statistic of 1.18, however, hints at potential positive autocorrelation in the residuals, which may require further diagnostic testing or model refinement.

Test of Hypotheses

(H₀₁): CBN loans have no significant effect on the liquidity of Nigerian commercial banks.

From the regression results, the coefficient of CBN loan is -0.0756 with a p-value of 0.0044, which is less than 0.05, indicating statistical significance. Therefore, we reject the null hypothesis (H₀₁) and conclude that CBN loans have a significant effect on the liquidity of Nigerian commercial banks.

(H₀₂): CBN overdrafts have no significant effect on the liquidity of Nigerian commercial banks.

The coefficient of CBN overdraft is -0.0019 with a p-value of 0.9597, which is greater than 0.05, showing no statistical significance. Hence, we fail to reject the null hypothesis (H₀₂) and conclude that CBN overdrafts do not have a significant effect on the liquidity of Nigerian commercial banks.

Conclusion

The study reveals that CBN loans have a significant negative impact on the liquidity of Nigerian commercial banks, meaning that as banks receive more loans from the Central Bank, their liquidity levels tend to decrease. This means that a dependence on central bank support, weaken the banks' ability to maintain stable liquidity on their own. On the other hand, CBN overdrafts were found to have no significant effect on bank liquidity. Therefore, it is concluded that only CBN loans, and not overdrafts, play a meaningful role in influencing the liquidity of commercial banks in Nigeria. This calls for careful regulation and monitoring of central bank lending practices to ensure they enhance rather than undermine financial health.

Recommendations

The following were recommended for the study;

1. Commercial banks in Nigeria should develop more robust internal liquidity management strategies rather than relying heavily on CBN loans.
2. The Central Bank of Nigeria should reassess the structure and conditions of its credit facilities to ensure they are used for short-term support rather than long-term liquidity dependence.

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