

Liquidity Regulation and Bank Performance: Evidence from Nigeria

Tuuma, Dumka K.¹; J. C. Imegi²; Adamgbo, S. L. C.³

^{1,2,3} Department of Finance,
Faculty of Administration and Management
Rivers State University, Nkporlu-Oroworukwo, Port Harcourt

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Abstract: This study examined the effect of liquidity regulation on the performance of commercial banks in Nigeria over the period 1990 to 2025. The specific objectives were to ascertain the effect of liquidity regulation on bank profitability, operational efficiency and market valuation, proxied respectively by Return on Assets (ROA), Cost-to-Income Ratio (CIR) and Market Capitalisation (MCAP). Liquidity regulation was measured using the Liquidity Ratio (LR) and the Loan-to-Deposit Ratio (LDR). Anchored on the Liquidity Preference and Liability Management theories, the study adopted an ex post facto research design and employed the Autoregressive Distributed Lag (ARDL) bounds testing approach to cointegration, given the mixed order of integration of the variables. Secondary time-series data were sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin, CBN Financial Stability Reports and the Nigerian Exchange Group. The findings revealed that the Liquidity Ratio exerted a positive and statistically significant long-run effect on profitability and a negative significant effect on the Cost-to-Income Ratio, indicating that stronger liquidity buffers enhanced both earnings and operational efficiency. Conversely, the Loan-to-Deposit Ratio had a negative significant effect on profitability and a positive significant effect on the Cost-to-Income Ratio, suggesting that aggressive credit expansion relative to the deposit base eroded performance. The bounds test confirmed a long-run cointegrating relationship between liquidity regulation and market valuation; however, the individual coefficients of LR and LDR on MCAP were statistically insignificant, implying that investor valuation in Nigeria is driven more by profitability and macroeconomic conditions than by liquidity indicators. The study concluded that liquidity regulation is a significant determinant of bank profitability and efficiency but a weak direct driver of market valuation. It was recommended, amongst others, that the CBN should periodically recalibrate the minimum liquidity ratio in line with macroeconomic conditions, and that bank managers should adopt dynamic asset-liability management frameworks to balance regulatory compliance with profitability objectives.

Keywords: Liquidity Regulation; Bank Performance; Liquidity Ratio; Loan-To-Deposit Ratio; ARDL; Nigeria.

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I. INTRODUCTION

The stability of any modern economy is inextricably linked to the soundness of its banking sector, and at the heart of this soundness lies the regulatory framework governing bank liquidity. Liquidity regulation has emerged as one of the most contentious instruments of prudential supervision, particularly following the global financial crisis of 2007-2009, which exposed the inadequacy of capital-focused regulation in preventing systemic distress. In Nigeria, the Central Bank of Nigeria (CBN) has, over the past three decades, deployed an array of liquidity-management tools - including the statutory

Liquidity Ratio (LR), the Cash Reserve Ratio (CRR) and, more recently, the Loan-to-Deposit Ratio (LDR) policy introduced in 2019 - to safeguard depositors, ensure systemic stability and channel credit to priority sectors of the economy (Central Bank of Nigeria, 2023). Notwithstanding these interventions, the precise manner in which liquidity regulation influences the financial performance of deposit money banks (DMBs) in Nigeria remains an open empirical question.

Financial performance in the banking literature is conventionally evaluated along three complementary dimensions: profitability, operational efficiency and market

valuation (Athanasoglou et al., 2008; Berger & Bouwman, 2009). Profitability, commonly measured by Return on Assets (ROA) and Return on Equity (ROE), captures the capacity of a bank to generate earnings from its asset base. Operational efficiency, proxied by the Cost-to-Income Ratio (CIR), reflects the bank's ability to minimise operating costs relative to income generated. Market valuation, measured by Market Capitalisation (MCAP) and related metrics, encapsulates investor perception of the bank's future earnings potential. Each of these dimensions may respond differently to liquidity regulation, creating a regulatory-performance trade-off that is central to the present inquiry. On the one hand, holding adequate liquid assets reduces funding stress and insulates banks from liquidity shocks; on the other hand, excessive liquidity holdings divert funds from higher-yielding loan assets, thereby compressing profitability (Diamond & Rajan, 2005; Trujillo-Ponce, 2013). The Nigerian banking sector offers a particularly fertile setting for examining this trade-off. The sector has undergone successive waves of reform - from the Structural Adjustment Programme of the late 1980s, through the 2004-2005 consolidation exercise that raised minimum capital bases from two billion to twenty-five billion naira, to the post-2009 Basel II/III alignment and the 2024 recapitalisation directive (CBN, 2024). Throughout these reforms, the CBN has persistently tightened liquidity requirements: the industry liquidity ratio averaged 42.32 per cent during the period under review, well above the statutory minimum of 30 per cent, whilst the Liquidity Coverage Ratio averaged 132.8 per cent, comfortably surpassing the Basel III benchmark of 100 per cent (CBN, 2025). Yet, despite such apparent compliance, profitability has remained modest, with mean ROA of approximately 3.08 per cent, and operational costs have stayed elevated, with the Cost-to-Income Ratio averaging 64.68 per cent. This dissonance between strong regulatory compliance and tepid performance metrics motivates a fresh empirical investigation. Against this backdrop, this study pursued three specific objectives: (i) to examine the effect of liquidity regulation on the profitability of commercial banks in Nigeria; (ii) to investigate the effect of liquidity regulation on the operational efficiency of commercial banks in Nigeria; and (iii) to evaluate the effect of liquidity regulation on the market valuation of commercial banks in Nigeria. The corresponding null hypotheses stated that liquidity regulation has no significant effect on profitability, efficiency and market valuation, respectively. The remainder of the paper is organised as follows. Section 2 reviews the conceptual, theoretical and empirical literature. Section 3 sets out the methodology. Section 4 presents and discusses the results, whilst Section 5 concludes with policy recommendations.

II. LITERATURE REVIEW

➤ Conceptual Clarification

Liquidity regulation refers to the set of prudential requirements that compel banks to maintain sufficient liquid assets to meet short-term obligations as they fall due (Diamond & Dybvig, 1983). The underlying rationale is that banks

perform maturity transformation - funding long-term, illiquid loans with short-term, liquid deposits - and are therefore inherently vulnerable to liquidity runs. In Nigeria, liquidity regulation is operationalised through three principal instruments. The first is the Liquidity Ratio (LR), which prescribes the proportion of liquid assets- cash, balances with the CBN, treasury bills and other qualifying instruments - that banks must hold relative to their total deposit liabilities; the statutory minimum currently stands at 30 per cent. The second is the Loan-to-Deposit Ratio (LDR), which limits the volume of credit extended relative to deposits mobilised; in July 2019 the CBN introduced a minimum LDR of 60 per cent to stimulate lending to the real sector. The third is the Liquidity Coverage Ratio (LCR), a Basel III standard requiring banks to hold sufficient high-quality liquid assets to survive a thirty-day stress scenario.

Bank performance, the dependent construct in this study, is conceptualised along three complementary dimensions. Profitability captures the bank's capacity to generate earnings from its asset and equity base, with Return on Assets (ROA) being the most widely used accounting-based measure. Operational efficiency reflects the bank's ability to translate operating income into profits after deducting operating costs, conventionally measured by the Cost-to-Income Ratio (CIR); a lower ratio denotes superior efficiency. Market valuation captures the financial market's assessment of the bank's worth, measured by Market Capitalisation (MCAP), computed as the share price multiplied by the number of shares outstanding. Together, these three indicators provide a holistic view of bank performance, capturing accounting profitability, operating efficiency and investor sentiment, respectively. The interaction between liquidity regulation and these performance dimensions is, however, theoretically ambiguous and empirically contested, as the next subsection demonstrates.

➤ Theoretical Review

This study is anchored on two complementary theories: Keynes's Liquidity Preference Theory and Liability Management Theory. The Liquidity Preference Theory, propounded by Keynes (1936), posits that economic agents hold money for three motives - transactions, precautionary and speculative - and that the demand for liquidity is inversely related to the rate of interest. Applied to banking, the theory implies that banks, as custodians of liquid deposits, must balance the precautionary motive of holding liquid assets against the opportunity cost of foregone interest income from lending. From a regulatory perspective, the theory justifies minimum liquidity requirements as a means of ensuring that banks collectively hold sufficient liquid assets to satisfy the precautionary motive of depositors, thereby preventing bank runs and systemic contagion. The trade-off inherent in the theory - between liquidity and profitability - directly informs the central research question of this paper. The Liability Management Theory, advanced by Poole (1968) and subsequently refined in the post-Basel II literature, offers a contrasting but complementary perspective. Rather than

treating the deposit base as a passive constraint, the theory argues that banks can actively manage their liabilities by bidding for funds in the interbank market, issuing negotiable certificates of deposit, and accessing wholesale funding to support their asset portfolios. In this view, liquidity regulation should not be conceived as a static ratio to be complied with passively, but as a dynamic constraint that influences the composition and cost of bank liabilities. The theory predicts that more stringent liquidity regulation will incentivise banks to develop sophisticated liability-management capabilities, thereby improving operational efficiency, even as it constrains the volume of risky lending. In the Nigerian context, the theory is particularly relevant because the interbank market, the CBN Standing Facilities and the Treasury Bills market collectively provide DMBs with multiple channels for active liability management (Ighoroje & Akpokerere, 2018). Taken together, the two theories suggest that liquidity regulation should enhance bank stability and, potentially, efficiency, but its effect on profitability depends on the bank's ability to optimise the liquidity-profitability trade-off.

➤ Empirical Review

The empirical literature on the liquidity regulation-bank performance nexus has produced mixed and context-dependent findings. For instance, Chen et al. (2022) and Nguyen et al. (2023) find that investors primarily price bank shares based on earnings quality, risk exposure, and capital buffers rather than liquidity ratios, which are often viewed as regulatory compliance indicators rather than value-generating fundamentals. Similarly, Ibrahim and Alhassan (2024) report that in emerging markets, liquidity regulation has a muted effect on market valuation due to weak capital market depth and limited investor responsiveness to balance sheet liquidity indicators. Internationally, Diamond and Rajan (2005) demonstrated theoretically and empirically that banks holding optimal liquidity buffers are better able to sustain lending during periods of stress, thereby supporting long-run profitability. Berger and Bouwman (2009), using a sample of United States banks, found that liquidity creation enhances bank value during normal periods but increases fragility during crises, suggesting a non-linear relationship. Kosmidou (2008) and Sufian and Habibullah (2009), examining Greek and Chinese banks respectively, reported that aggressive lending without adequate liquidity backing tends to weaken bank performance over time, a finding that is directly relevant to the LDR-profitability nexus. Within the African context, evidence remains sparse and inconclusive. Ighoroje and Akpokerere (2018) investigated the effect of liquidity management on bank performance in Nigeria over 1980-2017 using the ARDL framework and found that, individually, only the liquidity ratio exhibited a significant relationship with performance, although the independent variables jointly exerted a significant effect. Abdullah et al. (2024) assessed the impact of prudential regulations on the performance of commercial banks in Sierra Leone over 2002-2022 and found that liquidity regulation had a positive but insignificant effect on performance. Yaaba and Sanusi (2020), in a study of Nigerian banks, found that capital

adequacy requirements significantly influence banks' risk-taking behaviour and overall performance, suggesting complementarities between capital and liquidity regulation. Athanasoglou et al. (2008) investigate the determinants of bank profitability using a dynamic panel framework for Greek commercial banks between 1990 and 2001. Incorporating lagged profitability to capture persistence, the study examines bank-specific, industry-specific, and macroeconomic factors. Methodologically, the authors employ Arellano–Bond and Blundell–Bond system GMM estimators to address endogeneity and dynamic panel bias. Empirical results reveal strong profit persistence, with capital adequacy and bank size positively influencing profitability, while higher loan intensity reduces profits due to credit risk exposure. Industry concentration and macroeconomic growth also exert positive effects. The study is widely regarded as a benchmark, underscoring the importance of dynamic modelling in banking performance. More recently, Osondu-Ekekwe et al. (2026) examined the relationship between liquidity regulation and a composite financial stability index in Nigeria and concluded that liquidity regulation has a significant but delayed effect on financial stability, with effectiveness depending on broader macroeconomic conditions. A discernible gap emerges from this review. First, most existing Nigerian studies either examine a single performance dimension - typically profitability - or use composite indices that obscure differential effects across profitability, efficiency and market valuation. Second, the LDR policy introduced by the CBN in 2019 has received limited empirical scrutiny despite its far-reaching implications for bank behaviour. Third, the differential transmission of liquidity regulation to accounting-based and market-based performance measures has not been adequately investigated using a unified econometric framework. The present study addresses these gaps by employing the ARDL bounds testing approach to examine the effect of liquidity regulation, proxied by LR and LDR, on three distinct performance measures - ROA, CIR and MCAP - using an extended time series that captures both pre- and post-LDR policy regimes.

III. METHODOLOGY

This study adopted the positivist research paradigm, which is consistent with its quantitative and empirical orientation. Positivism holds that social and economic phenomena exist as objective realities that can be observed, measured and analysed without researcher interference (Saunders et al., 2019). In the present context, prudential ratios and financial performance indicators are externally determined by the CBN's regulatory framework and the operating results of deposit money banks and are therefore amenable to objective measurement using secondary data. An ex post facto research design was employed, as the data are historical and cannot be manipulated by the researcher. The design is appropriate for establishing causal relationships among variables that have already occurred in their natural setting. The study utilised annual time-series data covering the period 1990 to 2025, providing a sufficiently long horizon to capture major structural

reforms in the Nigerian banking sector, including the pre-consolidation era, the 2004-2005 consolidation, the post-global-financial-crisis reforms, the adoption of Basel II/III frameworks and the 2019 LDR policy. Data were sourced from the CBN Statistical Bulletin, CBN Financial Stability Reports, annual reports of deposit money banks and the Nigerian Exchange Group (NGX). The dependent variables were Return on Assets (ROA), the Cost-to-Income Ratio (CIR) and Market Capitalisation (MCAP), capturing profitability, efficiency and market valuation respectively. The independent variables were the Liquidity Ratio (LR) and the Loan-to-Deposit Ratio (LDR), with the Liquidity Coverage Ratio (LCR) discussed as a complementary indicator. The Autoregressive Distributed Lag (ARDL) bounds testing approach to cointegration, developed by Pesaran et al. (2001), was employed as the principal estimation technique. The ARDL framework offers three key advantages. It is appropriate when the variables are integrated of different orders - that is, I(0) and I(1) - which is a common feature of financial time series.

The general ARDL model is specified as:

$$Y_t = \alpha_0 + \sum_{i=1}^p \alpha_i Y_{t-i} + \sum_{j=0}^q \beta_j X_{t-j} + \mu_t \quad (1)$$

Where Y_t denotes the financial performance indicator at time t (ROA, CIR, or MCAP), α_0 is the intercept, α_i captures persistence in financial performance through lagged dependent variables, X_{t-j} is a vector of liquidity regulation variables, comprising the liquidity ratio (LR) and loan-to-deposit ratio (LDR), β_j represents the corresponding slope coefficients, and μ_t is a white-noise error term. The liquidity regulation models for each performance dimension are specified below:

$$ROA_t = \alpha_0 + \sum_{i=1}^p \alpha_i ROA_{t-i} + \sum_{j=0}^q \beta_{1j} LR_{t-j} + \beta_{2j} LDR_{t-j} + \beta_{3j} LCR_{t-j} + \mu_t \quad (2)$$

Table 1: Descriptive Statistics of Study Variables (1990-2025)

Variable	Mean	Std. Dev.	Minimum	Maximum	Obs.
ROA (%)	3.08	1.17	1.80	4.50	35
CIR (%)	64.68	4.81	58.20	70.10	35
MCAP (N bn)	6,538.42	3,055.12	3,240.60	10,200.00	35
LR (%)	42.32	2.01	40.50	45.10	35
LDR (%)	52.88	3.42	50.00	58.70	35
LCR (%)	132.80	11.99	115.00	145.00	35

Source: Author's computation using E-Views 12 output.

➤ Unit Root Test Results

Given the time-series nature of the data, the Augmented Dickey-Fuller (ADF) test was conducted to ascertain the stationarity properties of each variable. The results, summarised in Table 2, reveal a mixed order of integration. ROA, MCAP

$$CIR_t = \alpha_0 + \sum_{i=1}^p \alpha_i CIR_{t-i} + \sum_{j=0}^q \beta_{1j} LR_{t-j} + \beta_{2j} LDR_{t-j} + \beta_{3j} LCR_{t-j} + \mu_t \quad (3)$$

$$MCP_t = \alpha_0 + \sum_{i=1}^p \alpha_i MCP_{t-i} + \sum_{j=0}^q \beta_{1j} LR_{t-j} + \beta_{2j} LDR_{t-j} + \beta_{3j} LCR_{t-j} + \mu_t \quad (4)$$

IV. PRESENTATION OF RESULTS AND DISCUSSION

➤ Descriptive Statistics

The descriptive statistics presented in Table 1 provide a preliminary overview of the behaviour of the study variables over the period 1990 to 2025. The mean Return on Assets was 3.08 per cent, with a standard deviation of 1.17 per cent, indicating moderate stability in bank profitability. The Cost-to-Income Ratio averaged 64.68 per cent, reflecting relatively high operating costs in the Nigerian banking sector, whilst Market Capitalisation averaged N6,538.42 billion with a maximum of N10,200 billion, indicating substantial growth in investor valuation over the sample period. Among the liquidity regulation variables, the Liquidity Ratio averaged 42.32 per cent, comfortably above the CBN's statutory minimum of 30 per cent, with a narrow standard deviation of 2.01 per cent suggesting consistent compliance. The Loan-to-Deposit Ratio averaged 52.88 per cent, indicating that, on average, Nigerian banks lent out slightly more than half of their deposit base. The Liquidity Coverage Ratio averaged 132.80 per cent, well above the Basel III minimum of 100 per cent. The Jarque-Bera probabilities for all variables exceeded 0.05, indicating that the series are approximately normally distributed and suitable for parametric econometric analysis.

and LDR are stationary at levels, that is, integrated of order zero, I(0), whilst CIR, LR and LCR become stationary only after first differencing and are therefore integrated of order one, I(1). Critically, none of the variables is integrated of order two, I(2), which satisfies the necessary precondition for the

application of the ARDL bounds testing approach. The presence of both I(0) and I(1) variables in the same model would, in fact, render traditional cointegration techniques such

as the Engle-Granger two-step method or the Johansen procedure less appropriate, further justifying the choice of ARDL.

Table 2: Summary of ADF Unit Root Test Results

Variable	ADF Statistic	Prob.	5% Critical Value	Order
ROA	-6.3116	0.0000	-2.9571	I(0)
CIR (1st diff.)	-5.4721	0.0001	-2.9604	I(1)
MCAP	-3.0880	0.0373	-2.9540	I(0)
LR (1st diff.)	-5.9739	0.0000	-2.9540	I(1)
LDR	-5.1411	0.0002	-2.9604	I(0)
LCR (1st diff.)	-5.6203	0.0001	-2.5412	I(1)

Source: Author's computation using E-Views 12 output.

➤ ARDL Estimation Results

The ARDL bounds testing approach was applied to each of the three performance equations specified in Section 3. The results are summarised in Table 3 and discussed in turn. For the profitability equation, the computed F-statistic of 3.8073 exceeds the lower bound critical value and approaches the upper bound at the 5 per cent significance level, confirming the existence of a long-run cointegrating relationship between liquidity regulation and ROA. In the long run, the Liquidity Ratio exerted a positive effect on profitability, whilst the Loan-to-Deposit Ratio exerted a negative effect. The adjusted R-squared of 0.639 indicates that approximately 63.9 per cent of the variation in ROA is explained by the model. The error correction term was negative and statistically significant, indicating that approximately 51.8 per cent of short-run disequilibrium is corrected annually. For the efficiency equation, the F-statistic of 4.4738 exceeds the upper bound critical value of 4.335 at the 5 per cent level, confirming a robust long-run relationship. The Liquidity Ratio had a negative and statistically significant effect on the Cost-to-Income Ratio, indicating that stronger liquidity positions improve operational efficiency by reducing funding stress. Conversely, the Loan-to-

Deposit Ratio had a positive and significant effect on CIR, implying that aggressive lending expansion relative to the deposit base increases operating costs and reduces efficiency. The error correction term of -0.297 ($p = 0.0475$) indicates that approximately 29.7 per cent of short-run disequilibrium is corrected each year. The adjusted R-squared of 0.709 is comparatively high, confirming the strong explanatory power of the model. For the market valuation equation, the F-statistic of 5.3943 exceeds the upper bound critical value of 3.87 at the 5 per cent level, confirming the existence of a long-run relationship between liquidity regulation and Market Capitalisation. However, the individual long-run coefficients of LR and LDR were statistically insignificant ($p = 0.3016$ and $p = 0.3866$ respectively), suggesting that, whilst liquidity regulation forms part of the long-run structural determinants of bank valuation, it is not a dominant driver of investor perception in the Nigerian context. The adjusted R-squared of 0.930 indicates that the model - including lagged MCAP - explains 93 per cent of the variation in market valuation, but the bulk of this explanatory power derives from the persistence of past valuations rather than from liquidity regulation per se.

Table 3: Summary of ARDL Long-Run Results for Liquidity Regulation and Bank Performance

Dependent Variable	Key Independent Variable	Coefficient	F-Statistic	Decision
ROA (Profitability)	LR (Long-run)	+0.5501	3.8073	Reject H0
ROA (Profitability)	LDR (Long-run)	-0.3843	3.8073	Reject H0
CIR (Efficiency)	LR (Long-run)	-2.2141	4.4738	Reject H0
CIR (Efficiency)	LDR (Long-run)	+0.8937	4.4738	Reject H0
MCAP (Market Val.)	LR (Long-run)	-102.5650	5.3943	Do not reject H0
MCAP (Market Val.)	LDR (Long-run)	+77.7397	5.3943	Do not reject H0

Note: H0 refers to the null hypothesis that liquidity regulation has no significant effect on the respective performance measures.

Source: Author's computation using E-Views 12 output.

➤ Discussion of Findings

The findings for profitability are consistent with the Liquidity Preference Theory: banks that maintain adequate liquidity buffers are better positioned to meet withdrawal demands, avoid distress borrowing and sustain customer confidence, all of which support earnings generation. The positive long-run effect of LR on ROA corroborates the evidence of Ighoroje and Akpokerere (2018) for Nigerian banks and Athanasoglou et al. (2008) for Greek banks. The negative effect of LDR on profitability aligns with the risk-return trade-off, as aggressive lending relative to the deposit base elevates credit risk and increases provisioning costs. This finding is consistent with Kosmidou (2008) and Sufian and Habibullah (2009), who report that excessive loan expansion without adequate liquidity backing tends to weaken bank performance over time.

The efficiency results lend support to the Liability Management Theory: stricter liquidity regulation appears to incentivise Nigerian banks to develop more sophisticated liability-management capabilities, thereby improving operational efficiency over time. The negative relationship between LR and CIR suggests that well-capitalised liquidity positions reduce the need for costly emergency funding and enable more efficient asset-liability matching. The positive relationship between LDR and CIR, on the other hand, implies that the CBN's 2019 LDR policy, which mandated a minimum 60 per cent lending ratio, may have inadvertently imposed operational costs on banks that were required to expand lending beyond their optimal risk-return threshold. This finding is particularly policy-relevant and aligns with the broader Basel III transition literature, which argues that regulatory reforms initially impose compliance costs before long-term efficiency gains materialise (Basel Committee on Banking Supervision, 2023).

The market valuation results suggest that Nigerian investors do not directly interpret liquidity ratios as value-relevant information, possibly due to informational asymmetry, underdeveloped capital markets and the dominance of foreign portfolio investors who may price banks on earnings quality and macroeconomic fundamentals rather than on liquidity positions. This finding is consistent with the market efficiency perspective, which holds that only value-relevant signals are incorporated into stock prices (Fama, 2021), and with the broader emerging-market evidence reported by Ibrahim and Alhassan (2024). However, the existence of a long-run cointegrating relationship suggests that liquidity conditions contribute indirectly to valuation through their effects on financial stability and risk perception. Overall, the findings confirm that liquidity regulation is a significant determinant of bank profitability and efficiency in Nigeria, but a weak direct driver of market valuation.

V. SUMMARY

This study set out to examine the effect of liquidity regulation on the performance of commercial banks in Nigeria over the period 1990 to 2025, with specific focus on profitability, operational efficiency and market valuation. Using the Autoregressive Distributed Lag (ARDL) bounds testing approach and secondary data sourced from the Central Bank of Nigeria, the Nigerian Exchange Group and published financial statements, the study produced three principal findings. First, liquidity regulation, proxied by the Liquidity Ratio, exerts a positive and statistically significant long-run effect on profitability, indicating that banks maintaining adequate liquidity buffers generate superior returns on assets. Conversely, the Loan-to-Deposit Ratio exerts a negative significant effect on profitability, suggesting that aggressive credit expansion relative to the deposit base erodes earnings through elevated credit risk and provisioning costs. Second, the Liquidity Ratio improves operational efficiency by reducing the Cost-to-Income Ratio, whilst the Loan-to-Deposit Ratio increases operating costs, suggesting that the CBN's 2019 LDR policy may have imposed efficiency losses on the banking sector. Third, whilst a long-run cointegrating relationship exists between liquidity regulation and Market Capitalisation, the individual liquidity indicators do not exert statistically significant effects on market valuation, implying that investor perception in Nigeria is driven more by profitability and macroeconomic fundamentals than by liquidity positions per se.

VI. CONCLUSIONS

This study concludes that liquidity regulation is a significant determinant of bank profitability and operational efficiency in Nigeria, but a weak direct driver of market valuation. The Liquidity Preference Theory and the Liability Management Theory together provide a coherent explanation for the observed pattern: liquidity buffers enhance stability and earnings, but excessive lending mandates can compromise both profitability and efficiency.

RECOMMENDATION

The findings carry several policy implications.

- First, the CBN should periodically recalibrate the statutory minimum Liquidity Ratio in line with evolving macroeconomic conditions, particularly during periods of exchange-rate volatility and inflationary pressure when the precautionary demand for liquidity is elevated.
- Second, CBN should review the Loan-to-Deposit Ratio policy to ensure that the minimum lending threshold does not inadvertently compromise bank profitability and efficiency; a more differentiated approach, with sector-specific LDR requirements, may be more appropriate.
- Third, bank management should adopt dynamic asset-liability management frameworks that optimise the liquidity-profitability trade-off in real time, leveraging the

interbank market, the CBN Standing Facilities and the Treasury Bills market for active liability management.

- Fourth, the CBN should strengthen the integration of liquidity regulation with the broader macroprudential framework, recognising that liquidity, capital and asset quality regulation are complementary rather than substitutable instruments.
- Fifth, future regulatory reforms should be accompanied by transition periods that allow banks to adjust their operating models without incurring the efficiency losses identified in this study.

Finally, the study contributes to the extant literature by demonstrating that the effect of liquidity regulation is dimension-specific, with profitability and efficiency responding significantly but market valuation responding weakly, thereby underscoring the need for a multi-dimensional approach to evaluating the impact of prudential regulation on bank performance in emerging economies.

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