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Basel III regulatory reforms and bank financial performance: evidence from Nigerian deposit money banks

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Abstract
Purpose: This study examines how Basel III regulatory requirements affect the financial performance of Nigerian Deposit Money Banks (DMBs).
Methodology: The study used panel data on 11 listed banks from 2018 to 2024, excluding 2021, which the Central Bank of Nigeria designated a regulatory transition year, and employed a fixed-effects model with cluster-robust standard errors to address unobserved heterogeneity and serial correlation.
Results and conclusion: The results show that Basel III liquidity requirements have a negative impact on the profitability of the Nigerian Deposit Money Banks, which means that the higher the liquidity buffers, the less the banks can lend and invest in more profitable activities. The Basel III implementation framework also considers the short-term costs of compliance and adjustment to the reforms. Capital adequacy, funding stability, and leverage requirements, however, do not have a significant impact on profitability, indicating that these regulatory requirements were not limiting factors in the study period. The study also reveals that the larger banks do better because of economies of scale, diversification, and better operational efficiency. The study finds that Basel III reforms have increased financial resilience and prudential discipline in the Nigerian banking sector, albeit at the cost of short-term profitability in liquidity regulation.
Implication of findings: The findings highlight the trade-off between regulatory compliance and financial performance in emerging markets, suggesting that banks balance liquidity buffers with profitability goals.

Keywords: Basel III, Capital adequacy ratio, Liquidity risk, Leverage ratio, Bank performance.

1. Introduction

The vulnerabilities in the previous Basel I and Basel II global regulatory frameworks were revealed during the 20072008 global financial crisis, especially their overreliance on capital adequacy measures, lack of focus on liquidity risk, and excessive leverage. In reaction, the Basel Committee on Banking Supervision (BCBS) came up with Basel III as a more holistic prudential framework to enhance the resilience of banks by improving the quality of capital, tightening leverage requirements, and strong liquidity requirements (BCBS, 2010). The main aim of these reforms is to enhance financial stability and minimize systemic vulnerability. Nevertheless, their implications on the profitability and operational efficiency of banks are inconclusive across countries and banking systems (Akinbowale et al, 2025).

In Nigeria, the environment in which Deposit Money Banks (DMBs) operate is dynamic and challenging, characterized by macro-economic volatility, foreign-exchange pressures, inflationary trends, high operating costs, and changing regulatory demands (Clement, 2021; Ibrahim, 2024; Esechie, 2025). These circumstances have added compliance costs to banks, especially as institutions adapt to more stringent capital, liquidity, and leverage requirements under Basel III. Although more regulation is needed to protect financial stability, increasing regulatory costs can limit lending capacity, decrease flexibility in balance sheet management, and impose downward pressure on profitability.

Moreover, profitability in the Nigerian banking industry has been uneven over the past few years. While some large banks have managed to maintain earnings through digital expansion, diversification, and scale benefits, others continue to face margin compression, elevated credit risk, foreign exchange losses,

and higher funding costs. This suggests that the profitability impact of new prudential regulations may vary across institutions based on size, structure, and operational efficiency (Yahaya, 2026; Mentor, Akinrinola, & Victory, 2025).

Although Basel III is policy relevant, empirical evidence on its impact on performance is unclear and mixed. The existing international studies report positive, negative, or insignificant relationships between Basel III components and bank profitability (Ihsan, Rivani, & Parlina, 2025; Jallow, 2025; Jerkeman & Sandqvist, 2025; Mamyrbekova, 2025), which means that the results are context-specific and depend on the institutional and macroeconomic conditions. In Nigeria, the available studies, including (Golubeva, Duljic, & Keminen, 2019; Jallow, 2025; Tempel & Seydou, 2021) have mostly focused on the pre-Basel III periods, recapitalization episodes, or isolated indicators such as capital adequacy, but little attention has been given to the joint effects of capital, liquidity, and leverage reforms after formal implementation.

As a result, there is still a dearth of post-implementation empirical evidence on the impact of Basel III reforms on Nigerian Deposit Money Banks. This paper fills that gap by investigating the effect of the Capital Adequacy Ratio (CAR), Liquidity Coverage Ratio (LCR), Net Stable Funding Ratio (NSFR), and Leverage Ratio (LEV), and a Basel III implementation dummy, on the financial performance of selected Nigerian DMBs in terms of Return on Assets (ROA).

2. Literature review

Capital adequacy and bank performance

One of the key prudential requirements in the Basel III framework is capital adequacy, which is designed to increase the resilience, stability, and solvency of banks. It is usually quantified by the Capital Adequacy Ratio (CAR), which is a measure of the ability of a bank to absorb losses in relation to its risk-weighted assets (Berger and Bouwman, 2013). Increased capital buffers should enhance shock absorption, maintain lending, and enhance market confidence, which will support long-term financial stability. Oziegbe et al. (2024) suggest that structural reforms and consolidation strategies may influence banking sector profitability and resilience.

Nevertheless, the empirical correlation between capital adequacy and bank performance is inconclusive. Whereas some studies report a positive and significant effect of CAR on profitability (e.g., Mochebelele, 2020; Mathina, 2022; Pervez et al., 2022; Abubakar and Fatima, 2025), others document negative or insignificant effects, which suggests that the impact of capital regulation is dependent on bank-specific characteristics, macroeconomic conditions, and regulatory environments (Astawa, 2019; Chandrasegaran, 2020; Sankaran, 2019).

Theoretically, increased capital ratios can increase stability and reduce the cost of funding but can also reduce the return on equity because of the increased cost of equity financing. Recent research highlights the significance of assessing capital adequacy as part of the broader Basel III framework, alongside liquidity and risk management requirements (Gamal & El-Ghonemey, 2023; Kasie et al., 2023; Keqa, 2023). Overall, the mixed evidence suggests that the impact of capital adequacy on bank performance is context-specific and an empirical issue, especially in emerging economies. Based on the above findings, this study hypothesized that;

H1: There is no significant impact of capital adequacy ratio on return on assets of Nigerian deposit money banks.

Liquidity regulation and bank performance

The components added by Basel III regulatory reforms are the liquidity coverage ratio and net stable Funding Ratio, which are aimed at improving the short and long-term resilience of banks. Although this reform can potentially enhance financial stability, it can also have a consequential negative impact on profit reductions due to the opportunity cost of holding low-yield liquid assets (BCBS, 2013; BCBS, 2014)

Liquidity coverage ratio and bank performance

The Basel III regulatory reforms obliged banks to hold adequate high-quality assets to absorb short-term liquidity shocks. Although this reform has a considerable relevance in ensuring resilience in the banking sector and enhancing the confidence of depositors, it has negative implications on profitability by limiting profitability through limiting investment in higher-yield assets (Agarwal 2025). Evidence that supports a negative relationship between LCR and bank performance, especially in developing economies (Vazquez & Federico, 2015; Ajibade & Olayemi, 2021; Bordeleau & Graham, 2010), found that excessive liquidity lowers profitability; Moussa (2015) reported a negative effect of liquidity holdings on profitability; Aminu (2025) reported a positive and significant relationship between financial risk management and profitability, emphasizing the importance of effective enterprise risk management practices in enhancing banking sector performance. The Basel Committee (2017) predicted short-run profitability reduction. In line with the above, this study hypothesizes that:

H2: Liquidity coverage ratio has no significant effect on return on assets of Nigerian deposit money banks.

Net stable funding ratio and bank performance

The Net Stable Funding Ratio (NSFR), introduced by Basel III regulatory reforms, complements the LCR by requiring Available long-term Stable Funding (ASF) to be at least 100% of Required Stable Funding (RSF) over a one-year horizon (BCBS, 2014). This requirement reduces reliance on short-term funding and enhances structural liquidity resilience (Ireland & Schauber, 2016; Ihsan et al., 2025). The theoretical perspective suggests that greater stability should enhance bank resilience and reduce refinancing risk. However, its impact on profitability remains mixed among the empirical findings, with some studies, such as (Muriithi & Waweru, 2017; Sidhu et al., 2022), reporting a negative effect due to higher funding cost, while other studies, such as (Dang, 2021; Musallam, 2023), present a positive or insignificant relationship depending on bank-specific and macroeconomic conditions. The overall empirical review suggests that NSFR contributes more to long-term financial stability than to immediate profitability gains. In view of the above findings this study hypothesized that;

H3: Net stable funding ratio has no significant effect on return on assets of Nigerian deposit money banks.

Leverage regulation and bank performance

The Basel III leverage ratio was introduced to complement risk-based capital standards and prevent excessive debt accumulation (BIS, 2014). The leverage ratio is Tier 1 capital divided by total exposure, with a minimum regulatory requirement of 3%. It enhances transparency and complements risk-based capital metrics by capturing off-balance-sheet exposures that were largely overlooked during the 2008 global financial crisis. Empirical evidence, such as that of Beltratti and Stulz (2012), shows that highly leveraged banks performed worse during the financial crisis. It is proposed that leverage makes one more vulnerable. On the same note, Adrian and Shin (2010) opined that high leverage increases cyclical risk and financial instability. On the other hand, moderate leverage can enhance Return on Equity since debt

financing can increase shareholder returns. This is the reason why certain banks would like to have greater leverage in stable times.

In emerging markets like Nigeria, empirical studies have traditionally focused on capital adequacy, asset quality, corporate governance, and profitability, with fewer studies explicitly examining Basel III variables. See Soludo (2004), subsequent recapitalization reforms significantly reshaped the Nigerian banking industry by increasing minimum capital thresholds and encouraging consolidation. Later studies found that larger and stronger capitalized banks became more resilient (Lall, 2015; Palma, 2024; Jeleel-Ojuade, 2024; Ayinuola, 2025).

Additionally, Sanusi (2010) identified weak governance, poor risk management, insider abuse, and inadequate capital as major causes of the 2009 banking crisis. This strengthened the case for stricter prudential regulation. More recent studies show mixed profitability trends among Nigerian banks despite stronger regulation. Some banks improved efficiency and digital revenue streams, while others faced pressure from rising non-performing loans, foreign exchange volatility, and macroeconomic uncertainty making evidence limited and inconclusive with Some studies reporting that leverage discipline improves stability, while others find that it reduces profitability by restricting asset growth. The effect of leverage regulation on Nigerian DMBs remains an empirical issue requiring investigation under Basel III conditions.

The theoretical perspective holds an ambiguous relationship between leverage regulation and bank performance. On the one hand, stricter leverage reduces excessive risk-taking and improves financial stability. On the other hand, they may constrain banks' ability to expand lending and invest in higher-yield assets, which potentially constrains profitability. In addition to that, leverage constraints may incentivize portfolio rebalancing toward higher-risk, higher-return assets (Allahrakha et al., 2018), thereby complicating the risk–return dynamics. Based on their findings, this study hypothesized that;

H4: Leverage Ratio (LEV) has no significant effect on Return on Assets (ROA) of Nigerian Deposit Money Banks.

Theoretical framework

The study is anchored on the risk-return trade-off theory and liquidity preference theory. This is because the central objective of Basel III is to enhance resilience through stronger capital and lower leverage, both of which involve balancing profitability against risk reduction. The theory directly captures the study's core question: whether safer banking structures improve or constrain financial performance. Risk-Return theory framework suggests that stricter regulations reduce risk but may also lower returns, while Liquidity Preference Theory explains the negative impact of holding liquid assets on profitability. Therefore, risk–return Trade-off Theory provides the dominant explanatory lens, while Liquidity Preference, Financial Intermediation, and Agency theories offer complementary support.

3. Methodology

This study adopts a quantitative ex-post facto research design using panel data from 11 listed Nigerian Deposit Money Banks over the period 2018–2024, excluding 2021 as a transition year. The study used the Basel III regulatory dummy to capture the effect of Basel III implementation. The dataset is obtained from audited annual reports, Central Bank of Nigeria (CBN) publications, and NDIC reports. The dependent variable is Return on Assets (ROA), while the independent variables include CAR, LCR, NSFR, LEV, and a Basel III implementation dummy. Bank size is included as a control variable.

The study employs a fixed-effects model with cluster-robust standard errors to control unobserved heterogeneity and serial correlation. The choice of estimator is guided by the Hausman test, while multicollinearity is assessed using the Variance Inflation Factor (VIF).

Table 1: Variables definition and measurement

Variable	Meaning	Measurement	Expected Sign	Source
ROA	Profitability	PAT / Total Assets	Dependent	Beck et al. (2006); Kosmidou (2008); Dietrich &Wanzenriied (2014) Bordeleau (2010) Ozili (2019)
CAR	Capital adequacy	Regulatory capital/RWA	+	Bordeleu& Graham (2010) BCBS (2013) Berger & Bouwman (2013); Ozili (2020)
LCR	Liquidity	HQLA / Net cash outflow	-	Bordeleu& Graham (2010) BCBS (2013) Vazquez & Federico (2015); Ajibade & Olayemi (2021)
NSFR	Stable funding	ASF / RSF	+	Laeven& Levine (2009) BCBS (2014) Khan et al., (2017) Mohammed et al. (2020)
LEV	Leverage	Tier 1 / Exposure	±	Altunbas et al.,(2011) Cline (2015) Brei & Gambacorta (2016) Basel III (2017)`
BSIZE	Size	Ln (Total Assets)	+	Sidhu, Rastogi, Gupte,& Bhimavarapu, 2022
BASEL3	Dummy	0 and 1 for pre- and post	±	

Source: Author compilation 2026.

Model specification

$$ROA_{it} = \beta_0 + \beta_1 CAR_{it} + \beta_2 LCR_{it} + \beta_3 NSFR_{it} + \beta_4 LEV_{it} + \beta_5 BSIZE_{it} + \beta_6 BASEL3_{it} + \in_{it} \ldots\ldots\ldots\ldots\ldots \text{(i)}$$

Where:
ROA: Return on assets;
CAR: Capital adequacy ratio;
LCR: Liquidity coverage ratio;
NSFR: Net stable funding ratio; and
LEV: Leverage ratio.
BSZ: Bank size
BASE3: Dummy variable 0 and 1 for pre- and post-implementation
α: Alpha

β1, β2, β3, β4: (Beta Coefficients)
ϵi: Error term

Estimation techniques

The fixed-effect model with cluster-robust standard errors is used as the preferred specification, guided by the Hausman specification test. Where the null hypothesis of no systematic difference between FE and RE estimators is rejected, the fixed-effects model is preferred. To address heteroskedasticity and within-panel serial correlation, cluster-robust standard errors are employed at the bank level. Multicollinearity is assessed using the Variance Inflation Factor (VIF). All estimations are conducted using STATA 13.

4. Results and discussion

Descriptive statistics

Table 2 below presents descriptive statistics for the study's independent variables (CAR, LCR, NSFR, LEV) and dependent variables, Return on Assets (ROA). It contains several observations, including the sample mean, standard deviation, minimum, and maximum for each study variable over the study period.

Table 2: Descriptive statistics of the study variables

Variable	Obs	Mean	Std. Dev	Min	Max
Roa	66	0.019	0.134	0.001	0.058
car	66	0.222	0.346	-0.598	2.061
lcr	66	14.410	4.502	2.598	28.144
nsfr	66	2.566	1.024	1.319	8.589
Lev	66	0.106	0.304	-1.032	1.438
bsize	66	9.573	0.508	-1.033	10.511

Source: Author`s computation using STATA V13(2026).

Table 2 above presents the descriptive statistics for the study variables, based on 66 bank-year observations from selected listed deposit money banks in Nigeria. Table 2 reveals that DMBs in Nigeria are profitable, well-capitalized, and highly liquid, consistent with the Basel III objectives.

Correlation analysis

Table 3 below presents Pairwise Pearson Correlation Coefficients among the study independent variables (Basel III: CAR, LCR, NSFR, and LEV) and the dependent variables bank performance (ROA and ROE), The table reports statistical significance at 5% level. The analysis provides preliminary insight into the direction and strength of relationships among the variables and serves as an initial diagnostic for potential multicollinearity before regression analysis.

Table 3: Correlation results of Basel III component with ROA

	roa	car	Lcr	Nsfr	Lev	Bsize
Roa	1.0000					
Car	-0.1919	1.0000				
	0.1227					
Lcr	0.1156	0.0267	1.0000			
	0.3553	0.8314				
Nsfr	0.1330	-0.3365*	-0.1621	1.0000		
	0.2871	0.0057	0.1934			
Lev	0.0020	0.8944*	0.1822	-0.4843*	1.0000	
	0.9875	0.0000	0.1431	0.0000		
bsize	0.4145*	-0.2124	0.5563*	-0.0045	0.0678	1.0000
	0.0005	0.0869	0.0000	0.9715	0.5887	

Source: Author`s computation using STATA V13 (2026).

Regression result

Table 4: Fixed effect model (Robust) regression result for ROA with Basel III index

Variables	Coefficient	Robust Std. Err	P-Value
lev	0.016	0.003	0.630
lcr	-0.001	0.000	0.009
nsfr	0.001	0.002	0.571
bsize	0.023	0.005	0.001
basel3	-0.007	0.002	0.014
R-square within	0.293	0.042	0.001
F-statistic	176.60		
Prob (F-stat)	0.000		
Observation	66		
Houseman Test			
Chi-square statistic of	18.52		
P-Value	0.0024		

Source: Author`s computation using STATA V13 (2026).

Table 4 above presents the fixed effect regression result cluster standard errors on the effect of Basel III regulatory component leverage ratio (LEV), Liquidity Coverage Ratio (LCR), Net Stable Funding Ratio (NSFR), and aggregate Basel III regulatory index (BASEL3) as well as bank size (BSIZE) on Return on Assets (ROA) of Nigerian Deposit Money Banks. The fixed effects estimator controls unobserved, time-invariant bank-specific heterogeneity, thereby producing consistent estimates.

Hypothesis one (H1): Capital adequacy ratio (CAR) does not significantly impact return on assets (ROA)

The empirical findings reveal that the Capital Adequacy Ratio (CAR) has a negative but statistically insignificant effect on Return on Assets (ROA). Consequently, the study fails to reject the null hypothesis (H01), implying that regulatory capital adequacy does not significantly influence the profitability of Nigerian Deposit Money Banks during the study period. This finding suggests that most sampled banks may already maintain capital levels above the regulatory minimum threshold, thereby reducing the marginal effect of additional capital buffers on profitability.

The result is consistent with the Risk–Return Trade-off Theory, which posits that higher capitalization improves financial stability and reduces insolvency risk, but may simultaneously constrain profitability by lowering risk-taking and reducing lending intensity. The findings are also consistent with the empirical studies by Adeoti and Akinroluyo (2022), Kasie et al. (2023), and Mathina (2022), who reported insignificant relationships between capital adequacy and bank profitability in emerging economies. However, the finding contradicts the studies of Berger and Bouwman (2013), Chandrasegaran (2020), and Uddin and Sujan (2020), which documented significant positive effects of capital adequacy on bank performance.

Hypothesis two (H2): Liquidity coverage ratio (LCR) does not significantly impact return on assets (ROA)

The findings indicate that the Liquidity Coverage Ratio (LCR) exerts a negative and statistically significant effect on ROA. Therefore, the study rejects the null hypothesis (H02) and concludes that liquidity regulation significantly reduces profitability among Nigerian Deposit Money Banks. This result implies that maintaining large holdings of high-quality liquid assets imposes opportunity costs on banks because such assets generally generate lower returns compared to loans and other earning assets.

This finding strongly supports Liquidity Preference Theory, which argues that increased liquidity holdings reduce income-generating capacity and profitability. The result also validates the Basel III regulatory trade-off between improved financial resilience and reduced short-term profitability. The findings are consistent with the empirical studies of Golubeva, Duljic, and Keminen (2019), Musa, Abdullahi, and Ibrahim (2023), Nguyen, Le, and Tran (2021), and Subrata, Munna, and Md. (2024), who found that stricter liquidity requirements negatively affect bank profitability. However, the finding differs from studies such as Tempel and Seydou (2021), which reported an insignificant relationship between liquidity regulation and profitability.

Hypothesis three (H3): Net stable funding ratio (NSFR) does not significantly impact return on assets (ROA)

The regression results reveal that the Net Stable Funding Ratio (NSFR) has a positive but statistically insignificant effect on ROA. Accordingly, the study fails to reject the null hypothesis (H03), implying that long-term funding stability does not significantly influence short-term profitability among Nigerian Deposit Money Banks.

The finding suggests that although NSFR strengthens funding sustainability and reduces refinancing risk, its benefits are more long-term and stability-oriented rather than profitability-driven in the short run. The result partially supports the Risk–Return Trade-off Theory by indicating that reduced funding risk does not necessarily translate into immediate profitability gains. Empirically, the findings align with the studies of Hossain, Hossain, and Shabani (2020), Omondi and Muturi (2021), and Lee and Choi (2022), which reported insignificant or mixed effects of NSFR on profitability. Conversely, the result contradicts the findings of Dang (2021) and Nguyen and Le (2022), who found a significant positive relationship between funding stability and bank performance.

Hypothesis four (H4): Leverage ratio (LEV) does not significantly impact return on assets (ROA)

The empirical results show that the Leverage Ratio (LEV) has a positive but statistically insignificant effect on ROA. Therefore, the null hypothesis (H04) is not rejected. This implies that Basel III leverage requirements do not significantly affect profitability among Nigerian Deposit Money Banks.

The finding indicates that the Basel III leverage ratio functions primarily as a prudential safeguard designed to limit excessive balance sheet expansion rather than as a direct determinant of profitability. Theoretically, the result reflects the mixed predictions of the Risk–Return Trade-off Theory, whereby leverage may simultaneously increase returns and financial risk, thereby producing offsetting effects on profitability. The finding is consistent with the empirical studies of Omodero (2023), Kumar, Singh, and Mishra (2021), and Sah (2017), which reported insignificant leverage-profitability relationships. However, it contradicts the findings of Sharma and Singhal (2020), who documented a significant positive relationship between leverage and bank performance.

Hypothesis five (H5): Basel III implementation does not significantly impact return on assets (ROA)
The findings show that the Basel III implementation index (BASEL3) has a negative and statistically significant effect on ROA. Consequently, the study rejects the null hypothesis (H05) and concludes that Basel III implementation significantly reduces the profitability of Nigerian Deposit Money Banks. This result suggests that the implementation of Basel III reforms imposes short-term compliance and adjustment costs arising from stricter liquidity requirements, higher capital buffers, enhanced disclosure obligations, and balance sheet restructuring. The finding strongly supports the Risk–Return Trade-off Theory and Liquidity Preference Theory, which both predict that increased regulatory stringency may reduce profitability while enhancing financial resilience and stability. Empirically, the findings are consistent with the studies of Adesina (2020), Gavalas and Syriopoulos (2014), Sharma (2023), and Ozili (2023), which reported that Basel III reforms reduce bank profitability, particularly in emerging banking systems. However, the findings contrast with studies such as Khlifa and Zaki (2021), which found that Basel III reforms improve bank stability without significantly harming profitability.

Hypothesis six (H06): Bank size (BSIZE) does not significantly impact return on assets (ROA)
The findings reveal that Bank Size (BSIZE) has a positive and statistically significant effect on ROA. Thus, the null hypothesis (H06) is rejected. This implies that larger banks achieve significantly higher profitability than smaller banks. The result suggests that larger banks benefit from economies of scale, diversification opportunities, stronger market power, improved operational efficiency, and better access to low-cost funding. The finding also indicates that larger banks are better positioned to absorb the compliance costs associated with Basel III implementation. This observation is strongly consistent with Financial Intermediation Theory, which emphasizes efficiency gains associated with larger financial institutions. Empirically, the finding aligns with the studies of Athanasoglou, Brissimis, and Delis (2008), Obamuyi (2013), Gržeta, Žiković, and Tomas Žiković (2023), and Austin (2025), all of which reported a positive and significant relationship between bank size and profitability.

5. Conclusion

The study concludes that Basel III regulatory reforms in Nigeria contribute positively to banking sector stability and prudential discipline; however, they also impose short-term profitability costs, particularly through liquidity regulation. The findings, therefore, highlight a trade-off between financial resilience and profitability in the Nigerian banking sector under the Basel III framework.

Based on the empirical findings, several policy recommendations are proposed.

i. The Central Bank of Nigeria should adopt a balanced and flexible approach to liquidity regulation by implementing gradual timelines for liquidity thresholds, periodically reviewing LCR requirements in line with macroeconomic conditions, and allowing limited flexibility during

economic stress periods to maintain financial stability without excessively constraining bank profitability.

ii. The regulators should also strengthen supervisory focus beyond mere capital ratio compliance by emphasizing risk-based supervision frameworks, asset quality and credit risk management, and operational efficiency and governance structures to ensure regulatory effectiveness translates to actual performance outcomes.

iii. For banks, adopting cost-efficiency strategies such as improving operational efficiency through digital banking, optimizing asset allocation between liquid and high-yield assets, and enhancing revenue diversification through non-interest income can help offset the opportunity cost of liquidity holdings. Policymakers may further support strategic mergers and acquisitions and encourage expansion and capacity building for smaller banks, since larger and more efficient banks are better positioned to absorb regulatory costs and remain competitive.

iv. Additionally, Basel III implementation should be phased and tailored to the Nigerian banking environment, with policies considering local market realities such as inflation, FX volatility, and credit demand to enhance effectiveness without undermining bank performance.

v. Despite these contributions, the study has limitations: the sample of 11 listed banks may not represent the broader African banking industry, and the post-implementation period is relatively short. Future research could expand the sample to other African nations, use longer time horizons, and examine how Basel III affects lending behavior, risk-taking, financial inclusion, and credit growth to provide a more comprehensive assessment of regulatory trade-offs.

Future studies should consider extending the analysis to longer time periods to capture long-term effects, including macroeconomic control variables. Applying alternative methodologies such as Difference-in-Differences (DiD), Dynamic panel models (GMM), investigating the impact of Basel III on credit growth and lending behavior, risk-taking, and financial stability, financial inclusion in developing economies, among others.

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