



MONEY MARKET INSTRUMENTS AND PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

This study examines money market instruments and performance of deposit money banks in Nigeria from 1999 to 2024. Specifically, the study investigates the effects of Treasury Bills, Treasury Certificates, and Commercial Papers on the return on assets (ROA) of deposit money banks. The study adopts an ex-post facto research design and utilizes annual time-series data sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin and the Nigeria Deposit Insurance Corporation (NDIC). The Autoregressive Distributed Lag (ARDL) technique is employed to analyze both short-run and long-run dynamics among the variables. Empirical results revealed that Treasury Bills exert a positive and statistically significant effect on ROA in the short run, indicating their relevance as a low-risk income-generating investment for banks. Treasury Certificates exhibit a positive but statistically insignificant effect on ROA, suggesting limited contribution to short-term bank profitability. Commercial Papers also show a positive but insignificant relationship with ROA, reflecting their relatively marginal role in enhancing bank performance during the study period. Overall, the findings indicate that while certain money market instruments support bank performance, their aggregate effect on deposit money banks' profitability remains weak. The study concludes that investment decisions in money market instruments must be guided by their risk–return characteristics and liquidity implications. It recommends that deposit money banks prioritize Treasury Bills as part of their asset portfolio, reassess their exposure to Treasury Certificates, and exercise caution in commercial paper investments pending clearer long-run profitability outcomes.

Keywords: Money Market Instruments; Treasury Bills; Treasury Certificates; Commercial Papers; Deposit Money Banks; Return on Assets

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1. INTRODUCTION

1.1. Background of Study

The financial system of an economy plays a critical role in mobilizing funds from surplus units to deficit units, thereby facilitating investment, production, and economic growth. It comprises institutions, markets, and instruments that support the efficient allocation of financial resources. Broadly, the financial system consists of the capital market, which deals with long-term funds, and the money market, which specializes in short-term financial instruments.

The money market serves as a vital component of the financial system by providing short-term investible funds and facilitating liquidity management among economic agents. According to Isibor et al. (2016), the money market channels short-term funds from surplus units to deficit units, thereby supporting productive economic activities. A well-developed money market enhances financial intermediation, strengthens liquidity management, and supports credit expansion within the economy (Ikpefan & Osabuohien, 2016).

In Nigeria, deposit money banks dominate money market activities due to their central role in financial intermediation. Participation in money market instruments provides banks with alternative investment outlets, risk management opportunities, and income diversification. Fapohunda et al. (2019) argue that money market instruments offer banks temporary relief and income opportunities, particularly during periods of regulatory tightening by the Central Bank of Nigeria. Similarly, Akinde et al. (2016) note that money market participation enhances banks' liquidity positions and overall financial performance.

Despite these benefits, Nigerian banks often exhibit limited enthusiasm toward extensive investment in money market instruments, preferring higher-yielding loans and advances. This reluctance is attributed to regulated interest rates, relatively low returns, and discount-related capital losses associated with early liquidation of some instruments. Consequently, questions persist regarding the extent to which money market instruments contribute to deposit money banks' performance.

Although several studies have examined the relationship between money market instruments and economic growth in Nigeria, relatively fewer have focused specifically on bank-level performance outcomes. Moreover, existing findings remain mixed and inconclusive. This study therefore contributes to the literature by empirically examining the performance implications of banks' investment in money market instruments, using return on assets as a performance metric. By extending the study period to 2024 and employing the ARDL framework, the study provides updated evidence and clearer insights into both short-run and long-run effects.

1.2. Problem Statement

Money market instruments in Nigeria have expanded considerably in both scope and volume since the liberalization of the financial system in 1986. Despite this expansion, the money market has not achieved the level of depth, efficiency, and vibrancy required to optimally support the operations and performance of deposit money banks. Edo and Ikelegbe (2014) observe that money market activities in Nigeria have been largely concentrated on short-term loans, overdrafts, and foreign exchange trading, with limited effectiveness in strengthening financial

intermediation. Similarly, Ochei and Osabuohien (2012) argue that the Nigerian money market is constrained by an inadequate range of instruments necessary for smooth and efficient market operations, thereby limiting banks' investment choices and portfolio diversification.

Furthermore, frequent policy changes, macroeconomic instability, and regulatory requirements compel deposit money banks to invest in selected money market instruments largely to achieve monetary and fiscal policy objectives rather than to enhance profitability. The returns on some money market instruments are either regulated or uncertain, making them highly sensitive to changes in macroeconomic policy. As a result, fluctuations in interest rates and policy directions often translate into unstable returns, raising concerns about the effectiveness of money market investments in improving bank performance.

Empirical evidence on the relationship between money market instruments and deposit money banks' performance in Nigeria remains mixed and inconclusive. Many existing studies focus primarily on macroeconomic outcomes such as economic growth rather than bank-level performance indicators. Studies such as Edo and Ikelegbe (2014) and Ochei and Osabuohien (2012) do not clearly establish the magnitude and direction of the effects of specific money market instruments on the financial performance of deposit money banks. This lack of consensus creates an empirical gap, particularly regarding how investments in Treasury Bills, Treasury Certificates, and Commercial Papers influence banks' return on assets.

Against this background, this study seeks to fill the identified gap by empirically examining the impact of money market instruments on the performance of deposit money banks in Nigeria from 1999 to 2024, using return on assets as a proxy for bank performance.

1.3. Research Objectives

The main objective of this study is to examine the impact of money market instruments on the performance of deposit money banks in Nigeria from 1999 to 2024. The specific objectives are to:

- i. examine the effect of Treasury Bills on the return on assets of deposit money banks in Nigeria;
- ii. assess the effect of Treasury Certificates on the return on assets of deposit money banks in Nigeria; and
- iii. evaluate the effect of Commercial Papers on the return on assets of deposit money banks in Nigeria.

2. LITERATURE REVIEW

2.1. Conceptual Review

Money market instruments: Are the short-term financial securities with maturities not exceeding one year and are characterized by high liquidity and low default risk. Common examples include Treasury Bills, Treasury Certificates, Commercial Papers, Bankers' Acceptances, and Certificates of Deposit (Ndugbu et al., 2016). These instruments enable efficient liquidity allocation, risk management, and short-term financing within the financial system.

Money Market Instruments and Deposit Money Banks' Performance

Treasury Bills: Represent risk-free government securities and serve as a major liquidity management tool for banks. Their stable returns contribute positively to banks' interest income and asset quality. However, excessive reliance on Treasury Bills may crowd out private sector lending and compress interest margins (Okonkwo & Onuoha, 2023).

Commercial Papers: though offering higher yields than government securities, expose banks to credit and liquidity risks. Weak secondary markets and corporate governance challenges further constrain their performance-enhancing potential (Bello & Mohammed, 2023).

Treasury Certificates: While supporting medium-term funding stability, often yield lower returns and expose banks to interest rate risk, thereby limiting their short-run profitability contribution (Adegbite & Ogundipe, 2021).

2.2. Theoretical Review

Fry's Theory of Money Market and Financial Liberalization

This study is anchored on Fry's (1988, 1997) theory of financial liberalization and money market development, which emphasizes the role of market-determined interest rates and efficient financial intermediation in enhancing economic and institutional performance. Fry's theory emerged as a response to the shortcomings of financially repressed systems common in many developing economies, where interest rates are administratively controlled and financial markets are shallow.

According to Fry (1997), finance and financial institutions become increasingly relevant in an environment characterized by positive information, transaction, and monitoring costs. In such settings, debt instruments particularly short-term instruments traded in the money market tend to dominate more complex equity-like arrangements, especially when monitoring costs are high. This theoretical position underscores the importance of money market instruments as efficient vehicles for short-term investment, liquidity management, and income generation for financial institutions such as deposit money banks.

Fry further argues that *positive real interest rates* serve as a critical incentive for savings mobilization and efficient credit allocation. When interest rates are market-determined and positive in real terms, savers are encouraged to hold financial assets, thereby increasing the supply of loanable funds. Banks, in turn, are better positioned to allocate credit to productive and efficient borrowers capable of meeting their repayment obligations. This process enhances banks' asset quality and profitability, which directly links money market participation to bank performance.

In contrast, Fry (1988) notes that *financial repression* manifested through interest rate ceilings, directed credit policies, and excessive regulatory controls distorts money market operations. Under such conditions, liquidity preference pressures often push

real interest rates above their equilibrium levels, reducing the efficiency of financial intermediation. Fry emphasizes that in many developing economies, including Nigeria, fully liberalized money markets where interest rates are determined by the interaction of demand and supply remain limited. This constrains the effectiveness of money market instruments in supporting bank performance.

A central proposition of Fry's theory is that the *real interest rate* serves as a key indicator of financial intermediation efficiency. When real rates remain below their competitive equilibrium, it signals the presence of financial repression and weak market development. Conversely, a well-functioning money market with competitive interest rates enhances financial savings, deepens intermediation, and increases the availability of short-term investment instruments for banks. This theoretical framework provides a basis for analyzing how investments in Treasury Bills, Treasury Certificates, and Commercial Papers influence deposit money banks' profitability through returns on assets.

Furthermore, Fry (1997) identifies the development of money markets as a cornerstone of financial liberalization, particularly in systems where central banks shift from direct to indirect monetary policy instruments. In such frameworks, money market instruments become critical channels through which monetary policy is transmitted, while simultaneously serving as investment outlets for banks. The effectiveness of these instruments therefore has implications not only for macroeconomic stability but also for the financial performance of deposit money banks.

In the context of this study, Fry's theory provides a strong theoretical justification for examining the performance effects of money market instruments on deposit money banks in Nigeria. It explains how the structure, returns, and policy environment of money market instruments can influence banks' asset allocation decisions, income generation, and overall financial performance. Thus, the theory underpins the expectation that efficient and well-priced money market instruments particularly Treasury Bills should positively impact banks' return on assets, while instruments with regulated or uncertain returns may exert weaker or insignificant effects.

2.3. Empirical Review

Empirical studies on money market instruments in Nigeria have produced mixed findings, with much of the literature focusing on macroeconomic outcomes such as economic growth, sectorial output, and market stability, rather than bank-level performance indicators. Nevertheless, these studies provide important contextual insights into how money market dynamics influence financial intermediation, liquidity conditions, and investment behavior, which ultimately affect deposit money banks' performance.

George-Anokwuru & Chidinma (2024) examined the effect of money market instruments on economic growth in Nigeria over the period 1980–2020 using the Error Correction Mechanism (ECM). Their findings revealed that treasury bills, commercial papers, and bankers' acceptances exerted positive effects on economic growth. Although the study focused on macroeconomic performance, the results imply that efficient money market instruments enhance liquidity and credit availability, thereby creating favorable conditions for banks' asset utilization and profitability.

Similarly, Udoeye & Akunna (2024) investigated the impact of money market instruments on manufacturing sector output in Nigeria using the Autoregressive Distributed Lag (ARDL) technique. The study found that treasury bills, bankers' acceptances, commercial papers, and certificates of deposit had no long-run effect on manufacturing output but exerted positive and significant effects in the short run. This short-run effectiveness suggests that money market instruments play a stabilizing role in providing short-term funding, which is also relevant for deposit money banks' short-term income generation and liquidity management.

Nwani & Bako (2024) examined the relationship between money market instruments and economic growth in Nigeria using annual time-series data from 1999 to 2022 and the ARDL model. The findings showed that only treasury bills had a statistically significant impact on economic growth. This result underscores the dominant role of treasury bills in Nigeria's financial system and supports their relevance as a low-risk, income-generating investment for deposit money banks.

Bellemare (2024) adopted a mixed-method approach to investigate the impact of money market dynamics on economic growth in Nigeria. The study revealed a strong association between money market liquidity and banking sector performance, noting that increased liquidity enhances banks' lending capacity, which in turn stimulates investment and consumption. This finding provides indirect empirical support for the argument that well-functioning money markets contribute to improved bank performance through enhanced liquidity and intermediation efficiency.

Sofiyan (2024) examined the effect of money market operations on capital structure and economic growth in Nigeria using the error correction model. The study found that effective money market operations improve fund availability for businesses, leading to better capital structure adjustments and economic expansion. From a banking perspective, these outcomes suggest improved credit demand and asset deployment opportunities, which are essential for enhancing banks' profitability and return on assets.

In a related but distinct context, Anyamaobi & Okey-Nwala (2023) analyzed the impact of money market variables on stock market volatility in Nigeria using annual data from 1985 to 2021 and the ARDL approach. The findings revealed that commercial papers and treasury bills had no significant effect on stock market volatility, whereas certificates of deposit and bankers' acceptances exerted significant effects. Although the focus was on market volatility, the results highlight the varying influence of different money market instruments, reinforcing the need for bank-specific analysis of their performance implications.

Overall, the reviewed empirical studies reveal inconsistent and inconclusive evidence regarding the effects of money market instruments in Nigeria, with a predominant emphasis on macroeconomic indicators rather than bank-level performance. This limitation underscores the need for the present study, which focuses explicitly on the impact of selected money market instruments Treasury Bills, Treasury Certificates, and Commercial Papers on the return on assets of deposit money banks in Nigeria.

3. METHODOLOGY

3.1. Research Design

This study adopts an *ex-post facto research design*, which relies on the analysis of historical and already existing data without manipulation of the study variables. The design is appropriate for examining cause effect relationships among macro-financial variables where experimental control is neither feasible nor desirable. Consistent with Obiageli (2021), the *ex-post facto* approach enables objective assessment of the impact of money market instruments on the performance of deposit money banks in Nigeria.

3.2. Model Specification

The empirical model for this study is adapted from George-Anokwuru and Chidinma (2024) and modified to reflect the specific focus on *deposit money banks' performance* rather than macroeconomic outcomes. The functional relationship between the dependent and independent variables is specified as:

$$ROA = f(TB, TC, CP)$$

The explicit econometric form of the model is expressed as:

$$ROA_t = \beta_0 + \beta_1 TB_t + \beta_2 TC_t + \beta_3 CP_t + \mu_t$$

Where:

ROA = Return on Assets (proxy for deposit money banks' performance)

TB = Treasury Bills

TC = Treasury Certificates

CP = Commercial Papers

β_0 = Intercept term

$\beta_1 - \beta_3$ = Short-run coefficients of the explanatory variables

$\alpha_1 - \alpha_3$ = Long-run coefficients of the explanatory variables (within the ARDL framework)

t = Time period (1999–2024)

μ_t = Stochastic error term

The choice of ROA as the performance indicator reflects its ability to capture banks' efficiency in utilizing assets to generate earnings.

3.3. Method of Data Analysis

The study employs the *Autoregressive Distributed Lag (ARDL) technique* to examine the short-run and long-run effects of money market instruments on deposit money banks' performance in Nigeria. The ARDL approach is particularly suitable because it can be applied irrespective of whether the underlying variables are integrated of order I(0), I(1), or a combination of both, provided none is integrated of order I(2).

In addition, the *ARDL Bounds Testing approach to co-integration* is used to determine the existence of a long-run relationship among the variables. Where co-integration is established, both long-run estimates and short-run dynamics are analyzed through the associated error correction mechanism (ECM). This framework allows for clear distinction between short-run adjustments and long-run equilibrium relationships, in line with the study's objectives.

4. RESULTS AND DISCUSSION

4.1. Descriptive Statistics

Table 01- Descriptive Statistics

	ROA	TB	TC	CP
Mean	1.97	2162.10	113.43	27.59
Std. deviation	0.97	1714.02	190.54	32.60
Observations	26	26	26	26

Source: Author's Compilation from E-views 12 output, 2025.

The results of the descriptive statistics for the variables employed in this study are presented in *Table 4.1*. The descriptive analysis provides preliminary insights into the behavior and distribution of the data over the study period (1999–2024). Specifically, the statistics reported include the *minimum*, *maximum*, *mean*, *median*, and *standard deviation* for each variable.

The *mean* represents the average value of each variable over the period, while the *median* indicates the central tendency of the data and serves as a robustness check against the influence of extreme values. The *minimum* and *maximum* values reflect the lowest and highest observations respectively, thereby highlighting the range and extent of variation in the variables during the period under review.

Furthermore, the *standard deviation* measures the degree of dispersion of each variable around its mean, indicating the level of volatility or stability inherent in the series. Variations in the standard deviation across variables suggest differing degrees of fluctuation in money market instruments and deposit money banks performance over time. Overall, the descriptive statistics confirm that the variables exhibit

sufficient variability, thereby justifying their inclusion in subsequent econometric analysis.

4.2. Correlation Test

Table 4.2 presents the correlation result.

Table 02- Correlation Table

Variables	CPI	MPR	CRR	MS
ROA	1.0000			
TB	-0.1797	1.0000		
TC	0.1506	-0.3882	1.0000	
CP	-0.2795	0.6719	-0.2614	1.0000

Source: Author's Computation using E-views 12 output (2025).

The correlation results presented in the table indicate that *Treasury Bills (TB)* and *Commercial Papers (CP)* exhibit *weak negative correlations* with the *Return on Assets (ROA)* of deposit money banks in Nigeria. This suggests that increases in banks' investments in these instruments are associated with marginal declines in ROA; however, the weak magnitude of the coefficients implies that the linear relationship is limited and not necessarily economically strong.

In contrast, *Treasury Certificates (TC)* show a *positive correlation* with ROA, indicating that higher investment in treasury certificates is associated with improved asset profitability of deposit money banks. This positive association suggests that treasury certificates may offer relatively stable returns that support banks' earnings performance.

Overall, the correlation results provide preliminary evidence on the direction of relationships among the variables but do not imply causality. These findings therefore serve as a basis for the subsequent ARDL analysis, which rigorously examines both the short-run and long-run effects of money market instruments on bank performance.

4.3. Bound Test (Long Run Test)

The table below shows the F-statistic which is used to determine whether there exists a long-run or short-run relationship between the variables of the study.

Table 03 - ARDL Bound Test

Test Statistic	Value	K
F-statistic	2.8123	3
Critical Value Bounds		
Significance	I(0) Bound	I(1) Bound
10%	2.37	3.20
5%	2.79	3.67
2.5%	3.15	4.08

1%	3.65	4.66
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Source: Author's Computation using E-views 12 output (2025).

From the table, the F-statistic value of 2.8123 which is above 2.79 at lower bound at 5% significance level but lower than 3.67 at the upper bound at 5% significance level suggest that there is an inconclusive relationship (co-integration) between the variables under study.

4.4. Regression Analysis

Table 04 - Autoregressive Distributed Lag Short-run Estimates

Variables	Coefficients	Std error	T-statistic	P-values
TB	0.0006	0.0004	1.716	0.0014
TC	0.0034	0.0070	0.4842	0.6369
CP	0.0033	0.0015	2.229	0.0556
R-Squared	0.786			
Adjusted R-squared	0.608			
F-statistic	4.407			
Prob(F-statistic)	0.009			
Durbin-Watson	2.182			

Source: Author's Computation using E-views 12 output (2025).

The regression results presented in *Table 4.4* indicate that *Treasury Bills (TB)* have a *positive and statistically significant effect* on the return on assets (ROA) of deposit money banks in Nigeria. This is evidenced by a positive coefficient value of *0.0006* and a probability value of *0.0014*, which is below the 5 percent level of significance. This finding implies that increases in banks' investments in treasury bills enhance profitability. The result is economically intuitive, as treasury bills are low-risk and highly liquid instruments that generate stable returns, thereby supporting banks' earnings and overall asset efficiency.

In contrast, *Treasury Certificates (TC)* exhibit a *positive but statistically insignificant relationship* with ROA. Although the coefficient value (*0.0034*) is positive, the associated probability value (*0.6369*) exceeds the 5 percent significance threshold. This indicates that treasury certificates do not exert a meaningful short-run influence on deposit money banks' performance. The insignificance may be attributed to their relatively longer maturity structure and lower short-term yield compared to treasury bills, which limits their contribution to immediate profitability.

Similarly, *Commercial Papers (CP)* show a *positive but statistically insignificant effect* on ROA, with a probability value of *0.0556*, which marginally exceeds the 5

percent significance level. This suggests that while commercial papers may contribute positively to bank earnings, their impact is not strong enough in the short run to significantly influence overall bank performance. The result may reflect the comparatively lower returns and higher credit risk associated with commercial papers relative to government-backed instruments.

The cumulative coefficient of determination (R^2) is 0.786, indicating that approximately 78 percent of the total variation in the return on assets of deposit money banks is jointly explained by treasury bills, treasury certificates, and commercial papers. The remaining 22 percent variation is attributable to other factors not captured in the model.

The *adjusted* R^2 value of 0.60 further confirms the explanatory strength of the model after adjusting for the number of regressors and sample size. The *F-statistic* of 4.407, with a corresponding probability value of 0.009, is statistically significant at the 5 percent level, indicating that the model is well specified and jointly significant in explaining bank performance.

Additionally, the *Durbin–Watson statistic* of 2.182 suggests the absence of serious autocorrelation in the residuals, as the value is approximately equal to 2. This confirms the reliability of the estimated coefficients.

4.5. Test of Hypotheses

H_{01} : Treasury Bills (TB) have no significant impact on the return on assets of deposit money banks in Nigeria.

Given that the probability value for treasury bills (0.0014) is less than 0.05, the null hypothesis is *rejected*. The study therefore concludes that treasury bills have a *statistically significant impact* on the return on assets of deposit money banks in Nigeria. The coefficient value of 0.0006 implies that a 1 percent increase in investment in treasury bills leads to an approximate 0.06 percent increase in ROA in the short run.

H_{02} : Treasury Certificates (TC) have no significant impact on the return on assets of deposit money banks in Nigeria.

The probability value for treasury certificates (0.6369) exceeds the 5 percent significance level; hence, the null hypothesis is *accepted*. This implies that treasury certificates do not have a statistically significant short-run impact on the return on assets of deposit money banks in Nigeria. Although the coefficient is positive (0.0034), the effect is weak and statistically insignificant.

H_{03} : Commercial Papers (CP) have no significant impact on the return on assets of deposit money banks in Nigeria.

The probability value for commercial papers (0.0556) is greater than 0.05; therefore, the null hypothesis is *accepted*. This indicates that commercial papers do not

significantly affect deposit money banks' return on assets in the short run. The positive coefficient (0.0033) suggests a marginal positive influence, but the effect is not statistically strong enough to impact bank performance meaningfully.

5. CONCLUSION

5.1. Discussion of Findings

This study tested three hypotheses to examine the influence of money market instruments on the performance of deposit money banks in Nigeria, measured by *Return on Assets (ROA)*.

Hypothesis 1: Treasury Bills (TB) have no significant impact on the ROA of deposit money banks in Nigeria.

The findings *reject* this hypothesis, showing a *positive and significant relationship* between Treasury Bills and bank performance. This indicates that Treasury Bills are an effective short-term investment instrument for banks. The positive effect arises because Treasury Bills are highly liquid, low-risk, and provide stable returns, enabling banks to generate steady income that enhances profitability. The result emphasizes the importance of Treasury Bills in the *short-run financial performance* of deposit money banks.

Hypothesis 2: Treasury Certificates (TC) have no significant impact on the ROA of deposit money banks in Nigeria.

The findings *accept* this hypothesis, indicating a *negative but not significant relationship* between Treasury Certificates and ROA. This outcome can be explained by the longer maturity and lower yields of Treasury Certificates, which reduce their short-term profitability impact. Although Treasury Certificates may contribute to long-term financial stability, their effect on *short-run performance* is limited, which aligns with the observed non-significant relationship.

Hypothesis 3: Commercial Papers (CP) have no significant impact on the ROA of deposit money banks in Nigeria.

This hypothesis is *accepted*, with a *positive but not significant relationship* observed. Commercial Papers provide short-term funding for banks but generate relatively modest returns compared to other instruments, resulting in minimal influence on overall bank performance in the short run.

The findings of this study are consistent with *Olusola & Akinmoladun (2020)*, who reported that Treasury Bills positively and significantly influence ROA, while Treasury Certificates have a negative and non-significant effect. Conversely, *Chijioke & Okonkwo (2017)* and *Michael & Izedonmi (2015)* reported differences, possibly due to variations in methodology, sample periods, and performance measures.

Overall, the study demonstrates that the effect of money market instruments on deposit money banks' performance is *instrument-specific*, influenced by factors such as maturity period, liquidity, and yield. Treasury Bills emerge as the most impactful instrument in enhancing *short-term bank profitability*.

5.2. Conclusion

The study provides important insights into the role of money market instruments in shaping the financial performance of deposit money banks in Nigeria. *Treasury Bills* have a *positive and significant effect* on ROA, highlighting their role as low-risk, liquid instruments that enhance short-term profitability. *Treasury Certificates* exhibit a *negative and not significant effect*, reflecting their longer-term nature and relatively lower yields. *Commercial Papers* show a *positive but not significant effect*, indicating limited contribution to short-term bank performance. These findings suggest that while money market instruments are part of banks' investment portfolios, their impact on performance depends on *instrument characteristics* such as maturity, liquidity, and returns.

5.3 Recommendations

Based on the study's findings, the following recommendations are made:

- *Focus on Treasury Bills:* Deposit money banks should prioritize investments in Treasury Bills to enhance ROA and strengthen short-term financial performance.
- *Reassess Treasury Certificates:* Banks should reconsider the proportion of funds allocated to Treasury Certificates and explore alternative investments that provide higher short-term returns.
- *Exercise Caution with Commercial Papers:* Banks should carefully evaluate the use of Commercial Papers due to their limited impact on ROA. Further research on their long-term effects is recommended before significant investment.

Limitations and Suggestions for Future Research: This study covers the period 1999–2024 and focuses on ROA as the performance metric. Future studies could include additional performance measures such as *Return on Equity (ROE)* or *Net Interest Margin (NIM)*. Alternative methodologies, including *panel data models* or *time-varying parameter approaches*, could provide more robust insights into both short-run and long-run effects of money market instruments on bank performance.

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