PRIVATE SECTOR DEPOSITS AND ECONOMIC GROWTH IN NIGERIA.

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Abstract

Given the perceived connection between bank deposits and bank lending, this study investigated the effects of private sector deposits on the growth of the Nigerian economy for the period 1994 to 2023. Real GDP was adopted as a proxy for economic growth while private sector deposit was disaggregated into demand, time, savings and foreign currency deposits. Data for the study were sourced from Central Bank of Nigeria (CBN) statistical bulletin for 2023. Following preliminary analysis that covered descriptive analysis and ADF unit root test, the study adopted the Johansen cointegration analytical technique, granger causality test and ECM estimation for further analysis. The validity and reliability of results were checked using multicollinearity, serial correlation and heteroscedasticity tests. Basically, the study revealed that there is a long run relationship between private sector deposits and economic growth in Nigeria. Also, results showed that private sector's demand, time and foreign currency deposits have positive insignificant effects on real GDP which the sector's savings deposits have negative but also insignificant influence on real gross domestic product. On this note, the study concluded that the effect of private sector deposits on economic growth in Nigeria is insignificant. This led to the suggestion that there is need for banks to offer competitive lending rates that will be attractive to the public so as to be able to attract more deposits for onward lending to the deficit

unit of the economy. Also, the regulatory authorities on their part should scale down lending rate by bringing down monetary policy rate. This will help in pushing more funds from the public into the banking system.
Keywords: Private Sector, Deposits, Economic Growth.

Introduction

Economic growth is a major macroeconomic concept that signals the health status of a country's economy. It is a major indicator that is used to gauge the performance of the managers of an economy. It is basically seen as a sustained increase in the output of an economy over a given period of time. The output here refers to the production of goods and services. According to Mankiw (2017), the growth of an economy, on one hand, is said to be extensive when it is generated through increased inputs like labour, capital and resources. Intensive growth on the other hand entails growth through increased productivity and efficiency. International bodies monitor the growth of a country via indicators like real gross domestic product (GDP), GDP per capita etc. However, the growth level of a country is determined by quality of human resources, volume of natural resources, technological development, political and social factors, and capital formation (Usoro, 2018). Capital formation is the process of creating and accumulating capital assets such as physical and financial capital like buildings, machinery, equipments, infrastructure and financial instruments. Thus, capital formation drives economic growth by increasing productivity, expanding existing businesses and creating new jobs.

However, the beginning point of capital formation is saving men and material resources from their use in consumer goods and transforming them into producer good. In order words, savings and investment are the catalysts of capital formation/accumulation (Mankiw, 2017). Financial institutions make savings and investment possible in every economy via their intermediation role. The intermediation process in a typical financial system can be broadly classified into short and long term intermediation. Intermediation in the long term involves savers and users of funds in the medium to long terms and the capital market plays the intermediation role here. Intermediation in the short term involves savers of funds who can afford to lend their savings for a short period and users of funds who are in need of funds for a short period. In this case, Deposit Money Banks play the lead role. Thus, these banks are unique institutions that facilitate the act of saving and investing in the short to medium term in every economy. These banks in the course of their daily operations facilitate savings and investment by intermediating between the surplus and deficit economic units of the economy (Odimgbe, Ogoke & Ogueze, 2024). Those in the surplus economic unit, who do not have immediate needs for their funds, save their funds with banks in various accounts like demand, saving, time or foreign currency deposit accounts. These banks as corporate entities that are established to make profit, and as well authorized to create money, end up giving out part of these mobilized deposits as loans to those in the deficit unit of the economy that have pressing needs for these funds. These funds end up being channeled into productive ventures that enhance the output of a country over time. As intermediaries between the surplus and units, DMBs compensate those in the surplus units for parting with their funds while those in the deficit unit pay interest to the bank for using customers' funds (Akinola, 2018).

In Nigeria, bank deposits are categorized along different lines. One categorization is based on duration and from this angle, there are 3 Months deposits, 6 Months deposits, 12 Months deposits, and Over 12 Months deposits (CBN, 2023). There is also sectorial classification of

deposits into private and public sector deposits. According to CBN (2023), private sector deposits are demand deposits, time deposits, savings deposits and foreign currency deposits that emanate from individuals, small and micro business outlets and corporate entities. The volume of deposits attracted by banks determines their loan volume and portfolio.

Existing growth theories like the Neoclassical and Harrod-Domar theories emphasized the importance investment towards the growth of an economy. This has forced policies and other well-orchestrated plans by the Nigerian government to encourage investments in the real sector of the Nigerian economy. One of the notable policies is the $50 million investment in the Nigeria Wholesale Impact Investment Fund (WIIF) in June 2025 to support critical sector sectors like agriculture, infrastructure and digital economy with a goal to unlock significant financing for micro, small and medium scale enterprises and to generate millions of jobs. Another notable move is the Investment and Securities Act (ISA) 2024 which was signed into law to modernize Nigeria's financial landscape, bolster investor confidence, and enhance regulatory oversight (**The Guardian, June 10, 2025**). The government over time has also encouraged Deposit Money Banks to lend to preferred sector in order to boost growth of the Nigerian economy.

Given that these DMBs do not print or mint money but they only rely on deposits from customers to lend to these sectors, it follows that bank deposits directly or indirectly affects the performance of the Nigerian economy. Accordingly, studies related to bank deposits and the growth of the Nigerian economy are few and far between (Odimgbe, Ogoke & Ogueze, 2024; Abdullah, Tsauni, & Shuaibu, 2022). Most of the existing studies have focused on bank deposits and banks performance (Nwaguru, Okafor & Anukam, 2025; Banke & Yitayaw, 2022; Upadhaya, 2021; Akinola, 2018; Akuma, Doku & Awer, 2017; Tuyishime, Memba & Mbera, 2015; Okun, 2012). Hence, given that private sector deposits are important to banks, and bank lending contribute to the growth of an economy, the question remains: what is the effect of private sector deposits to economic growth in Nigeria?

Review of Related Literature

Bank deposit generally refers to the money or assets a bank holds for a customer. When a customer makes a deposit, they place money in the bank. The bank holds the money for the customer for a set amount of time under certain conditions. If the funds are removed earlier than the agreed time, a fee must be paid to the bank (Houston, 2012). Bank deposits work through a system of agreements and regulations. The bank sets guidelines for deposit amounts and time limits. While holding the deposit, the funds become the bank's asset. This means the bank can use the funds while they have the asset. For example, they use funds to pay for other customer withdrawals; though the customer's deposit account is part of a bank's liability. This means the bank is responsible for the funds in the customer's account. At a set date, they need to return the funds and pay any interest agreed by both parties (Ambe, 2017).

Private sector deposits are deposits are deposits made by individuals and corporate entities in a bank for a given period of time under stated conditions. According to Ajibola (2017), such deposits manifest in the following ways:

  a. In-person: A situation where a customer can visit a bank branch and deposit cash or cheque directly into his/her account.
  b. Through an Automated Teller Machine (ATM): For some classes of accounts, customers can deposit funds through an ATM.
  c. By Mail: Some banks accept paper cheque through mail. They deposit the funds from the cheque into the customer's account.

d. Electronically: Customers can also deposit funds online. This includes direct deposits and e-payments. For example, when a customer uses direct deposits, their employer sends paychecks directly to the bank. The bank takes the electronic funds from the employer and places them into the customer's account.

Demand deposits are funds held in current accounts that can be withdrawn at any time without prior notice to the bank (Andrew & Osuji, 2018). Basically, this type of deposits are considered liquid assets because they can be easily converted to cash or used for transactions. Thus, account holders of demand deposits can withdraw funds without giving advance notice to the bank. One major feature this class of deposit is that they typically earn little or no interest, as they are designed for frequent transactions (Ajibola, 2017). On a macroeconomic level, demand deposits are part of a country's narrowly defined money supply, along with currency. This is the reason why it is generally believed that the common types of demand deposits are chequing accounts, savings accounts, and money market accounts. The part of demand deposits that come from individuals and corporate entities are called private sector demand deposits (CBN, 2023).

According to Houston (2012), a time deposit is an interest-bearing bank account that has a pre-set date of maturity. This implies that the money in a time deposit account must remain in the account for the fixed term in order to earn the stated interest rate. A certificate of deposit is the best known example of a time deposit. Basically, time deposits generally pay a slightly higher rate of interest than a regular savings account; thus, the longer the time to maturity, the higher the interest payment will be. Nevertheless, the owner of a time deposit can withdraw the money out if necessary but will lose some or all of the promised interest and may pay penalty fees in extreme cases. Just like private sector demand deposits, owners of private time deposit accounts are individuals and businesses organizations (Akuma, Doku & Awer, 2017).

Savings deposits according to Tuyishime, Memba and Mbera (2015) refers to funds held in a savings account, which is a type of bank account designed to help individuals save money. Savings deposits are designed for savings purposes; they typically earn low rate of interest; liquidity here is high, which means savings account holders can access their money at will, though they are subjected to some restrictions on withdrawal; and they may require a minimum balance to avoid fees or to earn interest (Ajibola, 2017). Savings deposit account is the most popular account in Nigeria and it is owned by individuals and business organizations, (CBN, 2023).

Unlike demand, time and savings deposits, foreign currency deposits refer to special class of deposit that is dominated by currencies outside the local currency of a country. Put differently, foreign currency accounts are accounts maintained in foreign currencies like the United States dollar ($), British Pound Sterling and the rest (Manyo, George and Ojeaburu, 2023). Thus, it is the practice of depositing foreign currencies in a bank account. The essence is that investors use foreign currency deposits to diversity or hedge against foreign currency fluctuations. These investors as such can earn higher interest rates and as well diversify their portfolios. The downside nonetheless, is that this class of deposits comes with foreign exchange risks. According to Akinola (2018), there are two major types of foreign currency deposits and they are foreign currency fixed deposits and foreign currency demand deposits; but in Nigeria, foreign currency deposits consist of private sector foreign currency deposit (domiciliary accounts), Federal Government foreign currency deposit, State Government foreign currency deposit, and Local Government foreign currency deposit (CBN, 2023) but emphasis here is on private sector foreign currency deposits.

Economic growth is a macroeconomic concept that connotes continuous or persistent increase in the overall output (goods and services produced) of a country over a given period of time. In essence, for economic growth to be genuine, the increase in output must be sustained over a long period of time. Thus, short-run increase followed by a similar decrease in the output of a country does not translate to economic growth (Dwivedi, 2008). Also, seasonal, occasional and cyclical increases in output do not satisfy the conditions of sustained economic growth. Economic growth can be measured using percentage increase in gross domestic product (GDP) or gross national product (GNP) on year-to-year basis. It can also be gauged using sustained increase in per capita national output or net national product (NNP) over a long period of time. This implies that the rate of increase in total output must be greater than the rate of population growth (Mankiw, 2017). Uwakaeme (2017) defined Gross Domestic Product as the money value of goods and services produced in an economy during a period of time irrespective of the nationality of the people who produce the goods and services. According to OECD (2014) Gross Domestic Product is an aggregate measure of production equal to the sum of the gross values added of all resident institutional units engaged in production (plus taxes minus any subsidies on products not included in the value of their output).

However, there are so many reasons why the growth rates of countries are not the same. Some of these reasons are the quality of human resources, availability of natural resources, level of capital formation, level of technological advancement, political and social factors (Mukhtar, Abdullahi, Yusuf & Yusufu, 2021).

Theoretical Review
Bank-Led Theory

The bank-led model offers an offbeat alternative to traditional branch-based banking whereby customer's financial transactions are done by a whole range of retail agents instead of at bank branches or via bank employees (Akinola, 2018). Retail agents have one-on-one interaction with customers and perform cash-in/cash-out functions much as a branch-based teller would take deposits and process withdrawals. Virtually any outlet that handles cash and is located near customers could potentially serve as a retail agent. Thus**,** Kazi (2012) submitted that in the banking sector, deposit mobilization is a scheme designed to spur customers to deposit more cash with the bank which, in turn, will be used by the bank to give out more loans and generate additional revenue for them. The primary business that banks do is accepting deposits and granting credits. The more the credits the banks give out, the more the revenue they generate. Banks do not have a lot of their own money to give as loans and quite clearly depend on customers' deposits to create funds for granting loans to other customers.

Theory of Deposit Expansion

The theory of deposit expansion was put forwards by Pennington (1963). The theory states that with fractional reserve, bank cash deposits produce excess reserves, and such excess reserves lead to loans, the proceeds of the loans when re-deposited in the system augment the volume of deposits in the system. They theory further states that if banks receive cash deposits, half would be held in reserve, the other half would be used for purchasing earnings yielding assets such as loans and investments. The sellers of these assets upon receiving the cash redeposit it in their banks, thereby increasing the volume of deposits (Manyo, George & Ojeaburu, 2023).

The Harrod-Domar Growth Theory

The Harrod-Domar theory of economic growth was separately developed by R.F. Harrod and E. Domar in the 1930s and 1940s (Dwivedi, 2008). The theory which considers capital accumulation as a key factor in the process of economic growth is also referred to as the capital accumulation growth theory. Basically, the theory emphasized that capital accumulation, which implies net investment, has a double role to play in economic growth. It generates income on one hand and increases production capacity of the economy on the other hand (Dwivedi, 2008). For example, establishment of a new factory generates income for those who supply labour, bricks, steel, cement, machinery, equipments etc., and at the same time, it increases the total stock of capital and thereby the production capacity of the economy. The newly generated income creates demand for goods and services. Nevertheless, a necessary condition for economic growth, according to the theory, is that the new demand (spending) must be adequate enough to absorb the output generated by the new investment, else there will be excess or idle production capacity (Tily, 2015).

Neo-Classical Growth Theory

This theory is associated with the Neo-classical school of economic thought. Thus, the theory is associated with the classical economists like R.M. Solow and T.W. Swan. According to Solow and Swan (1956), the theory (model) has it that economic growth is the result of three factors, which are labour, capital, and technology. The model attempts to explain long-run economic growth by looking at capital accumulation, labour or population growth and increase in productivity commonly referred to as technological progress. In other words, the theory explains long-run economic growth by looking at productivity, capital accumulation, population growth and technological progress (Solow & Swan, 1956). Hence, the model shows how an increase in capital, labour force and advancement in technology can influence the growth of an economy. Thus, the relationship between national output and these variables can be expressed as thus:

$$Y = F (K, L, T) \quad \text{……………………………………………. (2.1)}$$

Where:

Y	=	National Output (at constant price)
K	=	Stock of Capital
L	=	Labour Supply
T	=	Scale of Technological Progress
F	=	Functional Notation

In essence, there is a direct relationship between economic growth and each of capital stock, labour supply and technological advancement (Mankiw, 2017).

The theoretical underpin of this study is the neoclassical theory of economic growth that related the growth of an economy to capital stock (capital formation), labour supply and advancement in technology. These three propellants of growth require huge capital which can be obtained from Deposit Money Banks (DMBs) in form of overdraft, loans and advances. These banks on their part do not print or mint money but depend on deposits from customers in savings, current, time and foreign currency accounts. The success of deposit mobilization from customers is tied mainly to the prevailing economic situation of a country and the lending rate these banks offer individuals and corporate bodies at a given time.

Empirical Leterature Review

Specific studies on private sector deposits and economic growth are scarce in the literature but a few related studies will suffice. Odimgbe, Ogoke and Ogueze (2024)

examined the effect of demand deposit on economic growth in Nigeria between 1994 and 2019 using data sourced from Central Banks of Nigeria Statistical Bulletin. These data are on real gross domestic product (proxy for economic growth), and private sector demand deposit, state government demand deposit, and local government demand deposit as representatives of demand deposits. The Ordinary Least Squares (OLS) multiple regression technique was basically used for data analysis and results showed that 99% of changes in real Gross Domestic Product can be explained by the classes of deposits. Also, it was revealed that private sector demand deposit has a significant nexus with real GDP while state and local government demand deposits have insignificant associations with real GDP. The study concluded that demand deposits have significant effects on economic growth in Nigeria.

Ogbuji and Lawal (2024) examined the role of Deposit Money Banks' operations in enhancing economic growth in Nigeria for the period 2008 to 2022. The operations of DMBs was represented using loan to deposit ratio, credit to the private sector, liquidity ratio, cash reserve ratio, inflation rate, interest rate, and monetary policy rate; while Gross domestic product was adopted as a measure of economic growth. The Ordinary Least Squares (OLS) regression model was employed to analyze the data gathered and findings revealed that loan to deposit ratio has a positive and significant contribution to economic growth in Nigeria while credit to the private sector, inflation rate and interest rate exhibit negative effects on growth rate in Nigeria. However, monetary policy rate has a positive but insignificant effect on growth. Furthermore, liquidity ratio and cash reserve ratio were found to constrain the lending capacity of banks, thereby hindering growth in Nigeria.

Manyo, George and Ojeaburu (2023) investigated the association between private sector deposits and the performance of deposit money banks in Nigeria for the period 1990 to 2019. Private sector deposit was proxied by demand deposits, savings deposits and time deposits, while bank performance was proxied by return on assets. Adopting the ARDL (Autoregressive Distributed Lag) analytical technique that incorporated short run, long run, bunds and ECM tests/estimation, the study revealed negative relationship at some lag periods, and there is no significant relationship private sector deposits and performance of deposit money banks in Nigeria. Also, it was revealed that there is a weak long run relationship between private sector deposits and bank performance which demonstrated the fact that private sector funds such as demand deposits, savings deposits, time deposits with banks do not significantly influence the performance of these banks.

Abdullah, Tsauni and Shuaibu (2022) studied the variables that influence bank deposits and how bank liabilities (bank deposits), growth in banks' branches and developments in microfinance banking affect economic growth between 1989 and 2019. Autoregressive Distributed Lag (ARDL) error correction method and granger causality tests were analytical tools employed for data analysis and a positive relationship between physical capital and bank deposits was found. This showed that boost in physical capital increases people ability to save and banks' ability to attract deposits. The findings also show that consumption, dependency ratio and interest rate move in the same direction as bank deposits. Similarly, an increase in bank assets boosts gross domestic product (GDP) in Nigeria.

Upadhaya (2021) examined the extent to which deposit mobilization of commercial banks in Nepal affect their financial performance by using two samples, which are Sanima and NABIL Banks Limited, out of a total of 27 commercial banks in Nepal. The purposive sampling technique was adopted and the total number of observations was ten having five years' annual financial data. Descriptive and causal comparative research designs were

employed and the statistical tools used consisted of mean, standard deviation and correlation. Results revealed that loans and advance has positive and significant relationship with both net profit and total deposit mobilization. The position of profitability in commercial banks was satisfactory and found to be increasing per year. Similarly, the effect of both net profit and loan and advance over total deposit mobilization was significant and positive. However, loans and advances also have positive effects on deposit mobilization of commercial banks which indicates proper maintenance of loan and advance out of total deposit mobilization would increase profitability of banks.

Gunasekar and Kumari (2018) examined the factors affecting deposit mobilization in Sri Lanka. The main objective of this study was to examine the most effective factors affecting deposit mobilization, followed by a random sampling method, in which 120 deposit account holders were selected as a sample from three different convenient sample areas. The Questionnaires used were equipped with questions to obtain primary data. The data were analyzed using descriptive and regression analyses. The study revealed that there is a significant and positive relationship between deposit mobilization and deposit interest rate, security, branch expansion, services, technology and awareness. Also, there is a significant relationship between living area and amount of deposits; and demographic variables, such as gender, occupation, education level and income significantly affect deposit mobilization.

Orok, Okoi and Essien (2018) estimated the impact of inflation on deposit mobilization in deposit money banks in Nigeria. The broad objective of the study was to critically examine inflation rate in Nigeria with the view of ascertaining its effect on deposit mobilization in Nigerian banks. The study which was ex-post facto based, relied mostly on secondary data which were collected from the Central Bank of Nigeria (CBN) statistical bulletin, Nigeria Interest Research Library Research, textbooks, journal and report from 1994 - 2014. The population of this study included selected numbers of banks i.e. deposit money bank in Nigeria from 1994-2014. The study revealed that all variables used in the construct were stationary at 1st difference, and at least one co-integrating equations exited in the model. Also, inflation has a negative impact on deposit mobilization ability of Nigerian banks.

Akuma, Doku and Awer (2017) investigated the relationship between deposit mobilization, credit risk and profitability of Ghanaian banks from 2002 to 2011. Secondary data for the study were obtained from financial statements of 17 Ghanaian banks that operated consistently within the study period. Panel regression analysis was used in the estimation of a function relating to return on assets (ROA) to measures of credit risk and deposit mobilization as well a few control variables. The results revealed a significantly positive relationship between credit risk, deposit mobilization, growth in interest income, capital adequacy ratio and profitability of Ghanaian banks. However, a significantly negative relationship between year-on-year inflation and return on assets (ROA) was found. Regarding the relationship between bank size and profitability, the study found no significant association between the two. The research suggests that profitable banks in Ghana depend more on bank deposits as one of their main financing options. In the Ghanaian case, a high proportion (64.33%) of total liabilities is represented by bank deposits; attesting to the fact that Ghanaian banks largely depend on deposits for financing their operations.

Ambe (2017) investigated the determinants of deposit mobilization in commercial banks in Ethiopia. The main aim was determine the factors that determine customer deposit mobilization by commercial bank in Ethiopia by using data for 20 years. Both descriptive and econometric analyses were applied in order to investigate the factors. As determinants of customer deposit mobilization, five explanatory variables which are loan, existence of

competitors, interest rate, and branch expansion were considered. The result of the econometric analysis indicated that loan provision, branch expansion and number of customers have significantly impacted the growth of deposit mobilization. However, the emergence of new competitors and interest rate were not found to have positive impact to induce deposit mobilization in the banks.

Tuyishime, Memba and Mbera (2015) examined the effects of deposit mobilization on the financial performance of commercial banks in Rwanda with emphasis on Equity Bank Limited. The target population of the study was the bank managers involved in deposit mobilization namely the marketing and branch management teams in the study organization. Thus, they used a census to study a population of 27 staff. The documentary method and questionnaire were used for data generation. These data were analyzed using descriptive, Pearson and Spearman's correlation analyses. Findings indicated that 85% of the respondents confirmed that the brand name of the Equity Bank is recognized in the public which has made it able to overcome challenges like high competition from other banks. Secondly, the marketing strategy used made the bank to increase in terms of customers and it has led to increase in deposits over the years. Thirdly, a positive change in deposits interest rate affects the level of deposits received and later on the profitability of the bank. Fourthly, the introduction of innovative banking technology has led to the increase in deposits at a low cost as opposed to the usual way of getting deposits through term deposits and made financial services accessible to the unbanked people. This also made ROA, ROE and net profit to increase as the loans volume increases. Finally, there is a positive relationship between deposits mobilization and financial performance of commercial banks in Rwanda.

Gyamfi (2015) examined deposit mobilization as the role of commercial banks in Ghana. The purpose of investigation was to identify the most effective and efficient ways commercial banks in Ghana should employ to maximize the volume of domestic deposits in the environment of high rural population, dominant informal sector employment and macroeconomic instability. Analyses mainly had an explanatory research purpose since it aimed to establish the effect of methods used by commercial banks on deposits mobilization. The population of the study was commercial banks in Ghana. Out of the twenty-seven commercial banks, nine were selected as the sample size because of access to readily available data. It was found that the amount of domestic funds that commercial banks receive was far below the level sustainable for self-sufficiency. Huge volumes of loanable funds are left out of the banking system and it needs the efforts of the commercial banks to tap them into productive uses. The finding also indicated that deposits mobilization of commercial banks in Ghana though, has an upward trend, it increases at a decreasing rate.

It is crystal clear from empirical literatures reviewed, that specific studies on the area of private sector deposits and economic growth are lacking in the literature and that makes this study peculiar and unique. The most current of the related studies was done in 2024 (Odimgbe, Ogoke & Ogueze, 2024; Ogbuji & Lawal, 2024), which is another plus to this study as it was executed in 2025.

Methodology

The research settled for the quasi-experimental research design. Secondary data sourced from Central Bank of Nigeria (CBN) statistical bulletin, were used in the study. The data were solely on private sector demand deposits, time deposits, savings deposits and foreign currency deposits.

Methods of Data Analysis

The data set generated for this study was first subjected to descriptive analysis which was centered on determining the descriptive characteristics of the variables used in the study. These characteristics were mainly the mean, median, maximum and minimum values of the variables.

Next, the data for each variable was exposed to unit root test via the ADF (Augmented Dickey Fuller) approach. This test was executed with the mindset to ensure that all the variables were stationary in order to avoid coming up with spurious misleading results.

Given the results of unit root test, the data was subsequently subjected to co-integration analysis and the Johansen approach was followed for this analysis. The Johansen system cointegration test utilizes two test statistics to determine the number of co-integrating vectors. These are trace and maximum eigenvalue test statistics. The essence of this test is to find out if there is co-integration among variables, to determine the number of co-integrating equation and finally to define normalization of equation (Granger & Newbold, 2012).

In addition, there was ECM estimation, granger causality test and diagnostic tests. Diagnostic tests covered multicollinearity, serial correlation, heteroscedasticity, normality, and Ramsey RESET tests. The whole analytical procedure was aided by E-Views 10 software.

Model Specification

$$rgdp = F\ (psdd,\ pstd,\ pssd,\ psfd) \qquad \text{............................ (1)}$$

$$rgdp = \beta_0 + \beta_1 psdd + \beta_2 pstd + \beta_3 pssd + \beta_4 psfd + \mu_t \qquad \text{................ (2)}$$

Where:

rgdp	=	Real Gross Domestic Product
psdd	=	Private Sector Demand Deposits
pstd	=	Private Sector Time Deposits
pssd	=	Private Sector Savings Deposits
psfd	=	Private Sector Foreign Currency Deposits
β_0	=	Intercept term
$\beta_1 - \beta_4$	=	Slopes of the variables psdd, pstd, pssd and psfd respectively
μ_t	=	Error stochastic term

A Priori Expectations

$\beta_1,\ \beta_2,\ \beta_3 > 0$ i.e. the study expected private sector demand, time and savings deposits to have positive effects on real GDP in Nigeria.

Data Estimations and Results

Table 1: Data of Real Gross Domestic Product (RGDP), Private Sector's Demand Deposits (PSDD), Time Deposits (PSTD), Savings Deposits (PSSD) and Foreign Currency Deposits (PSFD) in Nigeria (1994 – 2023)

YEAR	RGDP (₦'Billion)	PSDD (₦'Billion)	PSTD (₦'Billion)	PSSD (₦'Billion)	PSFD (₦'Billion)
1994	21,676.85	63.53	25.11	49.30	1.70

1995	21,660.49	75.97	28.99	61.25	7.39
1996	22,568.87	93.25	43.28	68.47	5.68
1997	23,231.12	122.46	50.78	83.86	5.51
1998	23,829.76	131.97	58.68	100.89	9.41
1999	23,967.59	185.58	107.30	127.81	35.07
2000	25,169.54	308.26	145.87	163.96	38.07
2001	26,658.62	425.63	230.77	216.26	47.20
2002	30,745.19	467.97	289.86	242.79	109.04
2003	33,004.80	546.51	313.08	311.19	122.59
2004	36,057.74	680.26	390.42	358.72	172.54
2005	38,378.80	886.88	486.63	400.39	188.51
2006	40,703.68	1,411.98	838.63	586.21	302.38
2007	43,385.88	2,188.53	1,443.02	748.25	474.40
2008	46,320.01	3,290.97	2,254.91	1,083.84	924.11
2009	50,042.36	3,014.32	3,074.24	1,165.58	1,444.33
2010	54,612.26	3,335.70	2,753.43	1,587.10	1,506.29
2011	57,511.04	4,208.87	1,299.66	1,859.57	1,965.52
2012	59,929.89	4,291.84	3,277.24	2,016.07	2,726.98
2013	63,218.72	4,184.06	2,797.10	2,347.77	3,402.22
2014	67,152.79	4,764.17	4,722.16	2,672.09	3,961.88
2015	69,023.93	5,220.93	4,494.11	3,044.30	3,393.68
2016	67,931.24	5,563.41	3,866.78	3,670.85	4,160.61
2017	68,490.98	5,766.75	4,445.87	3,944.41	4,075.09
2018	69,799.94	4169.65	4169.65	4169.65	4169.65
2019	71,387.83	4700.06	4700.06	4700.06	4700.06
2020	70,014.37	6291.39	6291.39	6291.39	6291.39
2021	72,393.67	7522.61	7522.61	7522.61	7522.61
2022	74,639.47	9062.54	9062.54	9062.54	9062.54
2023	76,684.94	9062.54	9062.54	9062.54	9062.54

Source: CBN Statistical Bulletin (2023)

The table above contains yearly time series data of the variables used for the study. The graphical version of the said data is given below;
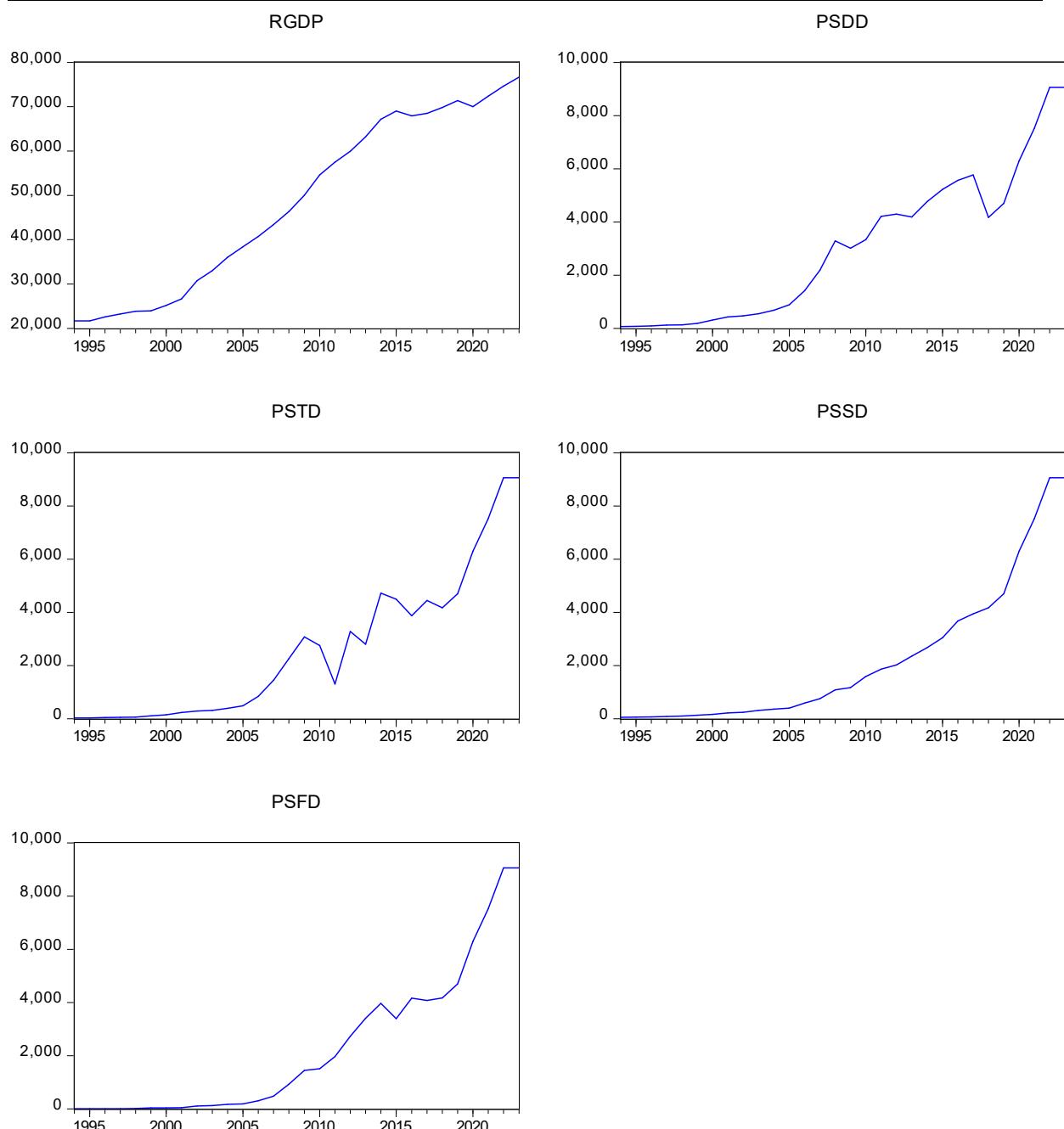
Fig. 1: Graphical Presentation of Data
Source: e-views Output , 2025

Table 2: Descriptive Analysis

	RGDP	PSDD	PSTD	PSSD	PSFD
Mean	48339.75	3067.953	2608.224	2257.324	2329.633
Median	48181.19	3152.645	1848.965	1124.710	1184.220
Maximum	76684.94	9062.540	9062.540	9062.540	9062.540
Minimum	21660.49	63.53000	25.11000	49.30000	1.700000
Std. Dev.	19817.85	2787.259	2747.150	2703.995	2796.054
Skewness	-0.049182	0.576424	0.949252	1.334065	1.109354
Kurtosis	1.417884	2.325560	2.975393	3.755116	3.215548
Jarque-Bera	3.140959	2.229912	4.506152	9.611396	6.211411
Probability	0.207945	0.327930	0.105076	0.008183	0.044793
Sum	1450192.	92038.59	78246.71	67719.72	69888.99
Sum Sq. Dev.	1.14E+10	2.25E+08	2.19E+08	2.12E+08	2.27E+08

Observations	30	30	30	30	30

Source: e-views Output, 2025

The above contains the descriptive statistics of the variables used for the study. The table shows that between 1994 and 2023, the average value of RGDP is ₦48339.75 billion; while the means of private sector demand deposits (PSDD), time deposits (PSTD), savings deposits (PSSD) and foreign currency deposits (PSFD) are: ₦3067.953 billion, ₦2608.224 billion, ₦2257.324 billion and ₦2329.633 billion respectively. The table subsequently shows that the variables RGDP, PSDD and PSTD are normally distributed as the probability values of Jarque-Bera statistic for these variables are greater than 0.05 while the variables PSSD and PSFD are not normally distributed as their probability values of Jarque-Bera statistic are less than 0.05 (5%).

Table 3: Unit Root Test

Variables	ADF Statistic	5% Critical Value	P-Value	Remark
RGDP	-3.150502	-2.971853	0.0342	I(1)
PSDD	-3.987608	-2.971853	0.0049	I(1)
PSTD	-5.865081	-2.971853	0.0000	I(1)
PSSD	-5.554055	-2.971853	0.0099	I(1)
PSFD	-3.385797	-2.971853	0.0202	I(1)

Source: Summary of e-views Output, 2025

Adopting the Augmented Dickey Fuller (ADF) approach to unit root test, the above table shows that the variables RGDP, PSDD, PSTD, PSSD and PSFD were stationary at first level of differencing. In essence the variables have no unit root and they can be used for further analysis. However, given the solo order of integration, I(1); the Johansen cointegration approach was adopted for data analysis.

Table 4: Cointegration Test
Date: 08/18/25 Time: 13:34
Sample (adjusted): 1996 2023
Included observations: 28 after adjustments
Trend assumption: Linear deterministic trend
Series: RGDP PSDD PSTD PSSD PSFD
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.856124	104.3729	69.81889	0.0000
At most 1 *	0.657106	50.08650	47.85613	0.0304
At most 2	0.336929	20.11719	29.79707	0.4150
At most 3	0.254158	8.612728	15.49471	0.4024
At most 4	0.014254	0.401980	3.841466	0.5261

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**

None *	0.856124	54.28643	33.87687	0.0001
At most 1 *	0.657106	29.96931	27.58434	0.0242
At most 2	0.336929	11.50446	21.13162	0.5970
At most 3	0.254158	8.210748	14.26460	0.3577
At most 4	0.014254	0.401980	3.841466	0.5261

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: e-views Output, 2025

Results of Johansen cointegration test revealed that there is cointegration between the variables as there is at least one cointegration equation using either the Trace or Maximum Eigen value criterion. In essence, there is a long run relationship between private sector deposits and economic growth in Nigeria.

Table 5: Granger Causality Test

Pairwise Granger Causality Tests
Date: 08/18/25   Time: 13:41
Sample: 1994 2023
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
PSDD does not Granger Cause RGDP	28	0.48249	0.6234
RGDP does not Granger Cause PSDD		2.89728	0.0755
PSTD does not Granger Cause RGDP	28	0.78452	0.4682
RGDP does not Granger Cause PSTD		0.74945	0.4838
PSSD does not Granger Cause RGDP	28	1.93286	0.1675
RGDP does not Granger Cause PSSD		0.98272	0.3895
PSFD does not Granger Cause RGDP	28	7.79344	0.0026
RGDP does not Granger Cause PSFD		0.98492	0.3887
PSTD does not Granger Cause PSDD	28	2.92367	0.0739
PSDD does not Granger Cause PSTD		1.62509	0.2187
PSSD does not Granger Cause PSDD	28	2.15957	0.1382
PSDD does not Granger Cause PSSD		0.06610	0.9362
PSFD does not Granger Cause PSDD	28	1.55747	0.2321
PSDD does not Granger Cause PSFD		0.30986	0.7366
PSSD does not Granger Cause PSTD	28	3.20638	0.0591
PSTD does not Granger Cause PSSD		0.11380	0.8929
PSFD does not Granger Cause PSTD	28	8.22480	0.0020
PSTD does not Granger Cause PSFD		0.49233	0.6175
PSFD does not Granger Cause PSSD	28	0.00446	0.9956
PSSD does not Granger Cause PSFD		1.17874	0.3256

Source: e-views Output, 2025.

Granger causality test revealed that there is a unidirectional relationship between private sector foreign currency deposits and real GDP; and there is also a one-ay directional relationship between private sector foreign currency deposits and private sector time

deposits. In essence, private sector foreign currency deposits granger causes real GDP and time deposits from the private sector respectively.

Table 6: ECM Estimation
Dependent Variable: D(RGDP)
Method: Least Squares
Date: 08/18/25 Time: 13:57
Sample (adjusted): 1995 2023
Included observations: 29 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2034.922	369.0803	5.513495	0.0000
D(PSDD)	0.534933	0.683764	0.782335	0.4420
D(PSTD)	0.228383	0.458782	0.497802	0.6233
D(PSSD)	-1.767419	1.447066	-1.221381	0.2343
D(PSFD)	0.573792	1.173318	0.489033	0.6294
ECM(-1)	-0.620181	0.060201	-0.335225	0.0045

R-squared	0.497988	Mean dependent var		1896.831
Adjusted R-squared	0.398102	S.D. dependent var		1463.723
S.E. of regression	1533.841	Akaike info criterion		17.69093
Sum squared resid	54111361	Schwarz criterion		17.97382
Log likelihood	-250.5185	Hannan-Quinn criter.		17.77953
F-statistic	0.499708	Durbin-Watson stat		1.110405
Prob(F-statistic)	0.773239			

Source: e-views Output, 2025

ECM (Error Correction Model) estimation revealed that private sector demand deposits (PSDD), private sector time deposits (PSTD) and private sector foreign currency deposits (PSFD) have positive insignificant effects on real GDP while private sector savings deposit (PSSD) has a negative insignificant influence on real GDP. Also, joint test of hypotheses revealed that the variables have a joint insignificant effect on real GDP in Nigeria. However, the absolute value of ECM(-1) terms showed a 62 percent speed of convergence to equilibrium in event of any distortion to the equilibrium relationship between the variables.

Diagnostic Tests
Table 7. Multicollinearity Test
Variance Inflation Factors
Date: 08/18/25 Time: 14:21
Sample: 1994 2023
Included observations: 29

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	136220.2	1.679110	NA
D(PSDD)	0.467534	2.605681	2.050744
D(PSTD)	0.210481	1.742060	1.490093
D(PSSD)	2.094000	7.159769	4.666438
D(PSFD)	1.376676	5.684752	4.028181
ECM(-1)	0.003624	1.370004	1.367015

Source: e-views Output, 2025
The above result indicated absence of multicollinearity as the centered VIF (Variance Inflation Factor) values of the variables are less than 5. This implies that there is no

correlation between the explanatory variables. In essence, the explanatory variables did not influence one another.

Table 8 Serial Correlation

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.546491	Prob. F(2,21)	0.1023
Obs*R-squared	5.660391	Prob. Chi-Square(2)	0.0590

Source: e-views Output, 2025

Since the probability values of F-statistic (0.1023) is greater than 0.05 (5% level of significance), it follows that there is no presence of serial correlation in the model. In other words, the errors were independent of each other. Thus, the error for one observation did not affect that of another observation.

Table 9: Heteroscedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.754894	Prob. F(5,23)	0.5912
Obs*R-squared	4.088209	Prob. Chi-Square(5)	0.5368
Scaled explained SS	1.884291	Prob. Chi-Square(5)	0.8649

Source: e-views Output, 2025.

Adopting the Breusch-Pagan-Godfrey approach to heteroscedasticity, the above table showed that the errors of the model are homoscedastic and not heteroscedastic. Put differently, the errors of the model have constant variances as expected for the OLS estimates to be valid and reliable.

Discussion of Findings

One of the major findings that emanated from the study is that private sector demand deposit has a positive insignificant effect on real GDP in Nigeria. This implies that an increase in the aggregate amount of demand deposits banks attract leads to an increase in the output of the country. This outcome, which aligns with the position expressed by Odimgbe, Ogoke and Ogueze (2024), was expected because the more deposits banks attract, the more loans and advances they will extend to customers in the deficit unit if the economy and such funds will be invested and given the multiplier effect of investment, there will be increase in the output of the country. However, the study did not expect the effect to be insignificant. One reason for this unexpected outcome may be because demand deposits do not stay long with banks as the owners can call for them at any time. Hence, the funds banks give out for investment purposes are funds that can stay with the banks for a reasonable period of time (Ambe, 2017; Gunasekar & Kumari, 2018).

The study also revealed that private sector time deposit has a direct insignificant influence on national output in Nigeria. In essence, an upward movement in the total time deposits in the banking system generates an upward increase in the aggregate output of the Nigerian economy. The first part of this result was expected due to the fact that banks rely so much on fixed deposits for their lending activities because such deposits last longer in the coffers of the banks (Ogbuji & Lawal, 2024). The banks on their part take advantage of the time duration such deposits will stay with them by lending them out to investors. Such investments end up having and indirect effects on the output of the country. Nevertheless, the second part of the result may be attributed to the fact that a very large part of the

country's money supply escapes the banking system, so the loan and advances banks give from time deposits end up being insignificant.

It was also observed that private sector savings has a negative insignificant effect on real GDP in Nigeria. This runs contrary to the study's a priori expectations of a positive and meaningful effect whereby an increase in banks' savings deposits should ordinary increase the loan portfolio of banks and such loans when invested will increase the national output of the country (Orok, Okoi & Essien, 2018). This can be attributed to the fact that deposit money banks as money market institutions do not lend on long term basis as they rely on depositors' funds and these depositors can call for their funds at any given times. Hence, banks by default cannot make long term funds available to investors. As such, investors mainly rely on the capital market for long term loans or funds.

Lastly, the study showed that private sector foreign currency deposits have a positive insignificant influence on real GDP in Nigeria. The study expected the effect to not only be positive but also significant as an increase in the inflows of banks has a tendency to increase the outflows of banks to the productive sector which ordinarily should have a multiplier effect on the output of the country. However, the insignificant outcome may be associated with the fact that private sector domiciliary deposits fall way short of private sector's demand, time and savings deposits (Abdullah, Tsauni, & Shuaibu, 2022; Gyamfi, 2015).

Conclusion and Recommendations

Economic growth theories have it that investment in capital and human are determinants of economic growth, and deposit money banks by their intermediation role make funds available for investment. Given that that these banks depend on deposits from customers, mainly the private sector, this study was undertaken to determine the extent to which private sector deposits affects the growth of the Nigerian economy between 1994 and 2023. The study as such used real gross domestic product to measure economic growth while private sector deposit was disaggregated into demand, time, savings and foreign currency deposits. Accordingly, the quasi-experimental design was adopted for the study and data on the aforementioned variables were sourced from Central Bank of Nigeria (CBN) statistical bulletin for 2023. Following preliminary analysis that covered descriptive analysis and unit root test, the study adopted the Johansen cointegration analytical technique for further analysis and this gave rise to granger causality test and ECM estimation. The validity and reliability of results obtained were tested using multicollinearity, serial correlation and heteroscedasticity tests options. Basically, results from the study revealed that;

1. Private sector's demand deposits have positive and insignificant effects on real gross domestic product (GDP) in Nigeria.
2. Private sector's time deposits have positive and insignificant effects on Nigeria's real gross domestic product (GDP).
3. Private sector's savings deposits have negative and insignificant influences on real gross domestic product (GDP) in Nigeria.
4. The effect of private sector's foreign currency deposits on Nigeria's real gross domestic product (GDP) is a positive insignificant one.

The study has shown that private sector's demand, time and foreign currency deposits have positive insignificant effects on real GDP which the sector's savings deposits have negative but also insignificant influence on real gross domestic product. On this note, the study concluded that the effect of private sector deposits on economic growth in Nigeria is insignificant.

Recommendations

1. There is need for banks to offer competitive lending rates that will be attractive to the public so as to be able to attract more deposits for onward lending to the deficit unit of the economy.
2. The regulatory authorities on their part should scale down lending rate by bringing down monetary policy rate. This will help is pushing more funds from the public into the banking system.
3. There is also need for more awareness about the benefits of keeping money with DMBs. This responsibility lies squarely on the shoulders of the Central Bank of Nigeria (CBN) and Nigeria Deposit Insurance Corporation (NDIC).
4. Deposit money banks on their part should be encouraged to channel a percentage of depositors' funds into the real sector of the Nigerian economy. This can be achieved using 'aggressive moral suasion' approach

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