

**FINANCIAL SECTOR DEVELOPMENT AND REAL SECTOR GROWTH IN
NIGERIA**

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ABSTRACT

This study examines financial sector development and Nigeria real sector output growth. The real sector is categorized into; services, industry and agriculture relative to GDP as dependent variables while financial sector development were proxied by; ratio of credit to the private sector to GDP, ratio of broad money supply to GDP and ratio of banking industry asset to GDP as independent variables. The purpose was to examine whether financial sector expansion influences output of the real sector in Nigeria. Within the correlational research design approach, the study utilized time series data covering the periods 1981-2023. The study explores the dynamic ordinary least square regression in the estimation of the models. The finding revealed that the key financial sector development indicators does not significantly impact the real sector in the long-run, the agricultural sector correlates with ratio of credit to the private sector negatively while it has a positive link with the total banking industry assets. The study confirms existence of the linkage between financial sector development and real sector output growth in Nigeria though not statistically strong enough. This revelation leads to the conclusion that development in the Nigeria's financial factor has not been transformational and substantial to influence growth of the real sector. Hence, the proposition that both the government and regulators of the financial system in Nigeria should thrive to ensure compliance to exiting policies to initiate sector-based credit allocation and credit guaranteed schemes favourable to boosting the real sector so as to reap the gains of financial sector expansion.

KEYWORDS: - Financial Development Real Sector, Output Growth, Broad money, Financial inclusion, exclusion, depth, stability etc.

1.0 INTRODUCTION

The link between financial sector development and economic still remain contentious. From the functional theory of financial development and output growth view point, a well-functional and developed financial sector will drive economic growth by facilitating economic activities, mobilizing savings for productive investment (World Bank). According to World Bank global economic prospective report, developing countries of which Nigeria is one in the second quarter

of the 21st century still face fierce headwinds, weak investment and productive growth (World Bank, 2025).

Financial sector development is defined in terms of the growth of the institutions and markets. It entails the depth, access, efficiency and stability of the sector. The monetary easing supports to economic activities that will accelerate growth in the real sector is desirable.

In Nigeria since the Covid-19 pandemic, there has been renewed **vigour** for financial inclusion to accelerate growth and development aimed at escalating investment and productivity, to cope with financial stability conditions, and enhancing macroeconomic stability. The Central Bank of Nigeria (CBN) policy initiatives has been directed to expanding financial sector improvement to narrow financial exclusion gap. Despite these measures or initiatives, the activities of the financial system in playing its supportive role appear to be setting at a low growth rate. This is considered insufficient to foster sustained economic development. Large body of evidence had suggested that financial sector development play huge role in economic development in different respect in **pooling** and mobilizing savings (deposits) for productive investment and in facilitating capital allocation (World Bank). Studies have proved that economies with better-developed financial system tends to grow faster over long periods of time, while suggesting that this effect(s) is causal; that financial development is not simply an outcome of economic development rather it contributes to economic growth.

Evidence from the global financial crisis has proven that the disastrous consequences of a weak, malfunction or failed financial sector has devastating effects for financial development and the economy at large. Financial sector development exemplified a robust and efficient financial system. Development in the financial sector is linked to output growth through mechanism like improved capital allocation, savings, investment, and enhanced risk management leading to productivity and economic growth (Mordi, 2010). According to World Bank financial sector development occurs when financial institutions, instruments, markets and intermediaries ease the effects of information, enforcement and transaction costs as well performing its key functions in the economy (World bank, 2025).

Finance as lubricant matters for development at both when the financial system functions well and also when it malfunctions (Global financial report, 2025). The importance and the role of the financial sector in economic growth had long been emphasized in the work of McKinnon and Shaw (1973) though was later built on in the works of Bagehot, Schumpeter, Gurley and Shaw. In this 21st century financial sector development is fueling technological innovations and economic growth. The Nigerian economy is one of the developing economies in the Sub Sahara Africa whose digital ecosystem is fast growing and expanding driven by technology. In Nigeria,

given the CBN policy initiatives targets for financial inclusion, development in the financial landscape has accelerated the adoption of non-physical payments especially during and after the pandemic. Mobile and internet penetrations is growing massively, people are enabled by digital provided financial services, people are comfortable with Fintech offering similar and seamless value propositions, the financial ecosystem is gaining popularity, more competitors, banks adopting partnership models, switching to holding company, diversifying their business, these are improvements or development and expansion that need to be assessed in the light of its impact on the real sector growth.

According to the International Monetary Fund (IMF) report of (2022), improving the Nigerian financial system could increase economic growth by up to 0.8 percent annually at the current rates (NDIC, 2025). An activity of the banking industry as a critical subsector of the Nigerian financial system has drastically improved. The financial market sector is not also exempted from this thrives; it is against this backdrop that this piece seeks to investigate the impact of development of the financial sector on the real sector growth. Based on the study objectives, financial development is looked at through institutional development in terms its depth and accessibility to financial intermediation.

2.0 LITERATURE REVIEW

Patrick (1960) in his financial development studies proposed that a well-functioning financial sector is crucial for channeling resources from the surplus units to deficit the units, enabling efficient allocation and driving economic growth. Patrick's theory emphasized that a strong financial system facilitates the efficient transfer of funds, allowing resources to be allocated to their productive uses, thereby stimulating economic growth.

Patrick viewed that a developed financial sector is evidence in a developed and efficient institutions and market that is of essence in developing economies of which Nigeria is one. Although after Patrick opinion, other works revealed divergent views leading to the two widely body of knowledge commonly referred to as the supply leading and demand following hypotheses (Akintola et al 2020). Schumpeter (1911) developed the pioneered work of the significant role of financial sector development in economic growth in his theory of development and the monetary transmission mechanism in (Akintola 2021).

Galbis and Roubirii work emphasized the crucial role of financial develop at fostering economic growth and the impact of financial institutions in facilitating the process. Their work aligns with the widely accepted view that a well-developed financial sector is key engine of economic growth. Creane et al (2003) research also supported the thesis that financial sector development boosts economic growth. In a wide range of research, financial development is shown to be a

good predictor of subsequent rates of economic growth, through its impact on economic activities, financial development stimulates economic growth. In a related work, financial development is seen to benefited economic growth up to certain threshold Yizhou and Hwan (2024). King and Levina (1993) hold that financial development stimulates economic growth by increasing the rate of capital accumulation as they identified ways financial development affects growth. Beck et al (2000) concluded that financial intermediaries exert a large positive impact on the total factor of productive growth, which feeds through to the overall GDP growth. The endogenous model argued that financial intermediaries affect growth by altering savings (Benci Veriga & Smith, 1991; Levine 1997; Pagano; 1993). Gerschen Kron (1962) in Jagadish (2018) argued that economically backward countries require an active financial system to support growth whereas the developed does not. In a more recent research, Oluranti (2022) carried out to examined financial development and real sector growthof the Nigerian economy spanning the periods 1970-2022,**within** the correlational research design approach, the study affirmed the theory of Mackinnon and Shaw of (19173) adding that financial development exert statistical influence on the real sector of the Nigerian economy. Choa, G (2022) Analyzed the relationship between financial development and sustainable economic growth, with evidence from China cities. The study explored Panel data from 253 prefecture level and above cities in China. The results showed that financial development is conducive to improving sustainable economic growth through capital deepening and technological innovation mechanism.

Arthur et al (2024) holds that financial development may hamper economic growth by spurring financial crimes and illicit activities. This therefore suggests that the influence of financial sector development on economic growth is less obvious. (Brain & Gisele2025). On the other hand, Abubakar (2020) opined that the quality of institutions significantly impacts economic growth, implying that poorly constructed institutions can hinder economic progress. This opinion was similarly contemplated by Adulla et al (2019), Shahn et al (2021) and Akinlo (2024), who in their separate views underscored that the role of institutions in financial development is crucial for enhancing economic growth. They contended that either in facilitating domestic or international transactions, effectiveness of financial institutions can boost productivity by enabling transfers and resource mobilization via technology. Ustanz and Fanta (2021) **explored from** a sectoral perspective the nexus between financial developments an economic growth in Sub-Saharan Africa. The study used the GMM over the period 1990 to 2018, with the results indicating a positive impact of financial development on certain sectors notably the agricultural and services sector. A number of researches have confirmed the positive impact of financial sector development on economic growth such as the works of (Kim, et al. 2018, Cheng, et al 2021, Mhadhbi & Tcrzi, 2022, Sghaler, 2023) in Brain and Gisele (2025). These studies had maintained and emphasized the crucial role of financial sector development in advancing

economic growth by improving liquidity, broadening access to financial services, and improving capital market efficiency.

Given the contention on the impact of the financial development on economic growth and looking from the other spectrum regarding the negative link between financial sector development and economic growth as reported in other research, during the last two decades, for example the work of Arthur (2024), Audi et al (2022) of which both contended and found a negative link between financial sector development and economic growth in a panel data of 58 countries over the period 2000-2020. The results of this study confirmed the views of Gerchen & Krom (1960) as reported in the study of Jagadish (2018) who argued that economically backward countries require an active financial system to support its growth process than the developed countries. He maintained that developing countries are not fully realizing the benefits of financial development, resulting in poor economic growth. This revelation is in tandem with the view of Al-Malkawi et al (2012) who also confirmed a negative link between financial sector development and economic growth in the United Arab Emirates attributing it to the country's transitioning financial system. In a similar opinion, Singh et al (2023) also observed a negative relationship between finance and growth in a sampled of selected countries. Opoku et al (2019) examined the finance-growth nexus and found a neutral result in a study of sample of African countries. He therefore concluded that financial sector development and growth evolve independently of each other. The researcher cautioned on drawing conclusion on the causal relationship between financial sector development and economic growth given the variability across periods and frequencies.

The study of Dutta and Mkhherjee (2018) concluded that financial sector development through institutions can have an indirect positive impact on economic growth. Their view agrees with that of Haini (2020) who proposed that the quality of the institution play significant role in the relationship between the finance-economic growth relationships. Chinoda and Kapingura (2024) also confirmed that institutional quality and governance positively impact financial inclusion which spurs economic growth. This position was based on the outcomes of the finance-economic nexus within the Sub-saharan African (SSA) countries. Oncel et al (2024) carried out analysis of the relationship between financial sector development, exports and economic growth for the common wealth nations. Utilizing the panel data set from 1995 to 2020 within the analytical frame work of GMM in a Panel Vector Auto regression (PVAR) FMoLs and DoLs methods, the authors found a positive impact of financial development and economic growth. The study revealed a robust connectivity between gross capital formations a means by which financial development influences growth. Ohorogun (2023) estimated the impact of Private-sector financial development on economic growth within the sub-Saharan African within the periods, 1978-2019; the results indicated that private-sector financial development spurs sustainable

economic growth in the region. In a similar study by Kuman and Singh (2023) who examined the impact and the joint impact of financial development, information communication technology infrastructure and trade **openness** on economic growth using a panel data set comprising 85 countries of which results confirmed a positive link between financial development and economic growth.

Pham et al (2024) using cross-sectional augmented Autoregressive Distributed lag model (S-ARDL) which addresses cross-sectional dependences confirmed a positive association between financial development and economic growth in Asia. Rahman and Khan (2023) applied the quadruple and quintuple helix model to examine the relationship between financial development and economic growth in Pakistan. Their findings revealed that high spurts of the GDP growth are achievable through consistency in financial and real sector policies complemented by strong institutions that promote democracy. The study concluded that financial sector innovation with democracy is crucial factors that influence the finance-growth relationship. Suleman and Dramani (2022) conducted a comparative analysis on the relationship between financial sector development and economic growth while assessing the role of institutions in regional blocs such as SADC (Southern African Development Community) and the ECOWAS. Their findings revealed a positive nexus between financial sector development and growth in both regional blocs, from the results, there exists a strong statistical effect of institutional development on the relationship between financial development and growth in economic community of West African States (ECOWAS).

DEVELOPMENT IN THE NIGERIAN FINANCIAL SECTOR

The Nigerian financial sector has transcended notable development and advancements in recent past. The requirements that guaranteed sound banking system, institutions, increased regulatory oversight to support the system stability is hitherto desirable with growing massive trend in financial inclusion through financial technology. With the Central Bank Nigeria mandate for banks and their categorization; International, National and Regional with varying capitalization base of N500 billion, N200 billion and N50 billion respectively expected to be effective 2026. This again intends to strengthen healthy balance sheet of banks to enhance resilient to market volatility to which they are prone to. Not losing sight of the various regulatory reforms aimed at ensuring efficient and effective risk measurement, assessment and management toward promoting financial stability are measures for solid financial sector advancement in the Nigerian financial landscape.

The Central Bank of Nigeria financial inclusion initiatives are major strides towards expanding the Nigerian financial ecosystem via mobile banking and digital payment platforms. The improvement in the financial market performance within the period is as well massive reflecting

significant digital and investor's friendly and confidence which have resulted to increased return's activities measured by volume of transactions and market capitalization. For example, as at the beginning of 2025 the main stock market index in Nigeria (NGX-All share index) ASI increased to 2706 points or 2.63% (trading economics.com), in the bank subsector, there hyper-personalization, real time payments, digital innovative products, credits, services among others **has actually** led to increasing consummation of financial services setting the pace for more seamless and intuitive banking experience. According to the financial sector 2024 round-up and 2025 forecast, the Nigerian financial sector soar by 3.7% growth in 2024 fueled by \$6 billion in foreign investments. The Central Bank of Nigeria (CBN) regulations mandate for **higher** bank capital bases by 2026 promote reforms like mergers and partnerships Obasi (2025).

3.0 METHODOLOGY AND DATA

This section details on how the research is being conducted taking into account data set collected, procedures its estimation as well the rationale among other things. The study adopts the correlational research design **technique** considered appropriate to investigate the relationship between financial sector development and real sector growth as a cause and effect study. This technique enables us to examine whether there exist a statistical association between our studied variables, strength and direction of the relationship within a non-experimental predictive research approach. The secondary time series data on our studied variables from official gazette of the Central Bank of Nigeria (CBN) statistical bulletin is employed in the analysis. The secondary time series quantitative data set spanned the periods 1981 to 2023 is found appropriate and utilized in the study because away from its ease of accessibility it's readily available and less time consuming as well cost effective. The quantitative data analysis approach is applied as it allows for both descriptive and regression analysis useful for examining relationship and predictive outcomes. The data collected is analyzed using the Dynamic Ordinarily Lest Square approach (DOLS). The DOLS estimation mechanism is considered appropriate for estimating cointegration relationships among others leading to more accurate and efficient estimates of long-run relationships – which is advantageous over the OLS. The estimation is done using **eviews** version 9.0.

Definition of variables used in the study, Dependent variable; Real Sector output growth, the widely considered real sectors include, services, agriculture and industry. The real sector output growth qualifies increase productive capacity of the real sector. Here we consider three (3) sector's contributions to the Nigeria's GDP (i.e. services, Agriculture and industry) by summing the different sectors value added to the final productions (GDP) and also by the different sectors' contribution to GDP, thus $SGDP = \text{services sector contribution to GDP} + \text{trade, transportation, tourism and finance}$ which often accounts for a significant portion of GDP in many countries. In Nigeria the services sector accounted for almost half of the total. In 2023 it was 42.77%, in 2004

58.04% to the GDP. The service sector contribution to the Nigeria's GDP grew with a year-on-year growth of 6.3% in the first quarter of 2025 (National Bureau of Statistics, 2025).

ASGDP; Agriculture sector is a vital part of the Nigerian economy contributing significantly to the GDP and employing a large percentage of the workforce in 2023. The sector contributed 22.72% to Nigeria's GDP, 17.22% in 2024 and cools to 1.8% in the first quarter of 2025(Businessday.ng).

ISGDP:- In 2023 THE INDUSTRIAL SETOR CONTRIBUTED 32.58% to Nigeria's GDP the major activities within the industrial sector as oil and gas (9%), manufacturing (7%) and construction (5%) the sector contribution to Nigeria's GDP ranked second to the services sector. In 2024 the sector contributed 17.19%, according to the Statista and nairametrics the National GDP is projected to grow by 3.6% in 2025 and the industrial sector to contributed 6%.

M3/GDP: - This provides insights into the availability of money for transactions and investments used in gauging the efficiency of the financial system and its impact on economic growth. Showing how much money is available for every naira of output or production.

BAGDP:- Ratio of total bank assets to GDP measures the size of the banking sector relative to the overall economy, providing insights into the financial system's depth and the extent to which banks are involved in financing economic activities, a higher ratio shows potentially greater financial deepening. Financial depth assesses how financial institutions provide loans, investments and other financial resources.

OPS/GDP:- Ratio of credit to private sector relative to GDP measures the levels of lending provided by financial sector to the private sector as it reflects financial development of a country and the level of credit available to private businesses in the forms of loans, mortgages, and other forms of credit extended to individuals and private entities. A larger ratio suggests a robust developed and accessible financial system where private concerns can have access to operational finance easily and grow.

Model:- in order to estimate the empirical association between financial sector development and the real sector output growth, the descriptive statistics, the correlational analysis relied on in demonstrating the relationship between the studied variables. The stationarity test, the Augmented Dicky-Fuller unit root test was conducted to identified the order of integration. The Johansen cointegration estimation using the trace statistics and maximum Eigenvalue statistic to investigate existence of long-run equilibrium relationship among the variables were conducted. The dynamic least squares (DoLs) regression used to examine the long-run relationship between

the contribution of the real sectors to the GDP and the chosen financial sector development indicators. The DoLs method was employed to correct for potential endogeneity and serial correlation given the cointegration among the variables revealed by the unit root test.

Based on the above, the functional and econometric models showing the relationship between financial sector development and real sector output growth are specified thus;

$$SGDP = f(M3/GDP, BA/GDP, CPS/GDP) \text{ ----- 1}$$

$$ASGDP = f(M3/GDP, BA/GDP, CPS/GDP) \text{ ----- 2}$$

$$ISGDP = f(M3/GDP, BA/GDP, CPS/GDP) \text{ ----- 3}$$

Econometrical, the linear functional regression model is derived;

$$SGDP = @ + \beta_1 M3/GDP_{it} + \beta_2 BAGDP_{it} + \beta_3 CPS/GDP_{it} + \mu \text{ ----- 1}$$

$$ASGDP = @ + \beta_1 M3GDP_{it} + \beta_2 GDP_{it} + \beta_3 CPSGDP_{it} + \mu \text{ ----- 2}$$

$$ISGDP = @ + \beta_1 M3GDP_{it} + \beta_2 BAGDP_{it} + \beta_3 CPS/GDP_{it} + \mu \text{ ----- 3}$$

Where;

SGDP = Services Sector contribution to GDP

ASGDP = Agricultural Sector Contribution to GDP

ISGDP = Industrial Sector Contribution to GDP

M3GDP = Ratio of broad money supply relative to GDP

BAGDP = Ratio of total bank assets relative to GDP

CPSGDP = Ratio of Credit to private sector relative to GDP

@ = Constant term

μ = error term or disturbance

$\beta_1 + \beta_2$ = Coefficients of independent variables

4.0 EMPIRICAL RESULT AND DISCUSSION

4.1 Descriptive Statistic

	ASGDP	SGDP	ISGDP	CPS_GDP	GDP	M3_GDP	BA_GDP
Mean	22.88157	46.30145	29.73109	11.91185	45962.28	15.89097	24.17359
Median	22.72494	46.22248	29.36369	8.108599	11501.45	13.01977	22.21286
Maximum	36.96508	59.78510	39.24509	22.75484	234425.9	27.09274	44.31054

Minimum	12.24041	35.35823	18.17313	5.806165	139.3105	8.464230	11.22786
Std. Dev.	4.480568	5.553126	5.175840	5.770229	62607.66	5.661930	8.406536
Skewness	0.450135	0.247167	-0.175495	0.574867	1.417348	0.479426	0.462188
Kurtosis	4.957350	2.809796	2.237650	1.579647	4.058115	1.599323	2.251070
Jarque-Bera	8.316385	0.502642	1.262000	5.982901	16.40290	5.162316	2.535867
Probability	0.015636	0.777773	0.532059	0.050215	0.000274	0.075686	0.281413
Sum	983.9073	1990.963	1278.437	512.2096	1976378.	683.3117	1039.464
Sum Sq. Dev.	843.1705	1295.163	1125.152	1398.413	1.65E+11	1346.413	2968.133

Source: Extract from Eviews 9.0

Table 4.2 Correlation Analysis showing the relationship between SGDP and CPS/GDP, BA/GDP, GDP and M3/GDP

Probability	SGDP	CPS_GDP	BA_GDP	GDP	M3_GDP
SDGP	1.000000				
CPS_GDP	0.596515	1.000000			
	0.0000	----			
BA_GDP	0.487833	0.911670	1.000000		
	0.0009	0.0000	----		
GDP	0.341958	0.829597	0.796833	1.000000	
	0.0248	0.0000	0.0000	----	
M3_GDP	0.587895	0.970221	0.917485	0.880856	1.000000
	0.0000	0.0000	0.0000	0.0000	----

Source: Extract from Eviews 9.0

Table 4.3 Correlation Analysis showing the relationship between ISGDP and CPS/GDP, BA/GDP, GDP and M3/GDP

Probability	ISGDP	CPS_GDP	GDP	M3_GDP	BA_GDP
ISGDP	1.000000				
CPS_GDP	-0.653106	1.000000			
	0.0000	----			
GDP	-0.379785	0.829597	1.000000		
	0.0120	0.0000	----		
M3_GDP	-0.633238	0.970221	0.880856	1.000000	
	0.0000	0.0000	0.0000	----	
BA_GDP	-0.646182	0.911670	0.796833	0.917485	1.000000
	0.0000	0.0000	0.0000	0.0000	----

Source: Extract from Eviews 9.

Table 4.4 Correlation Analysis showing the relationship between ASDP and CPS/GDP, BA/GDP, GDP and M3/GDP

Probability	ASGDP	BA_GDP	CPS_GDP	GDP	M3_GDP
ASGDP	1.000000				
BA_GDP	0.114290	1.000000			
	0.4655	-----			
CPS_GDP	-0.010959	0.911670	1.000000		
	0.9444	0.0000	-----		
GDP	-0.017203	0.796833	0.829597	1.000000	
	0.9128	0.0000	0.0000	-----	
M3_GDP	-0.023207	0.917485	0.970221	0.880856	1.000000
	0.8826	0.0000	0.0000	0.0000	-----

Source: Extract from Eviews 9.0

Table 4.5 Augmented Dickey-Fuller Test

Variable	Level	1 st Difference	Critical value @5%	Order of integration
SGDP		5.066856***	2.935001	I(1)
M3/GDP		5.706805***	2.935001	I(1)
CPS/GDP		5.866151***	2.935001	I(1)
GDP		8.252894***	2.935001	I(1)
BA/GDP		4.228118***	2.935001	I(1)

Note that ***, **, * indicates significance at 1%, 5% and 10% respectively

Source: Extract from Eviews 9.0

Table 4.6 Johansen Cointegration Test

Series: SGDP, CPS/GDP, GDP, M3/GDP, BA/GDP

Unrestricted Cointegration Rank Test (Trace)

Hypothesized	Trace	Statistic	0.05 Critical Value	Prob.**
No. of CE(s)	Eigenvalue	Statistic	Value	Prob.**
None *	0.578666	93.96527	69.81889	0.0002
At most 1 *	0.498860	58.52777	47.85613	0.0036
At most 2 *	0.356201	30.20207	29.79707	0.0449
At most 3	0.187249	12.14693	15.49471	0.1500
At most 4	0.085096	3.646361	3.841466	0.0562

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized	Max-Eigen	Statistic	0.05 Critical Value

No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.578666	35.43750	33.87687	0.0323
At most 1 *	0.498860	28.32569	27.58434	0.0401
At most 2	0.356201	18.05514	21.13162	0.1278
At most 3	0.187249	8.500574	14.26460	0.3301
At most 4	0.085096	3.646361	3.841466	0.0562

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: Extract from Eviews 9.0

Table 4.7 Dynamic Least Squares (DOLS)

Dependent Variable: SGDP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CPS_GDP	0.181612	1.100404	0.165041	0.8704
BA_GDP	-0.451141	0.650899	-0.693104	0.4952
GDP	-0.000170	0.000183	-0.930314	0.3619
M3_GDP	3.020762	1.756815	1.719454	0.0990
C	14.95407	10.68006	1.400186	0.1748
R-squared	0.780839	Mean dependent var		46.24946
Adjusted R-squared	0.628379	S.D. dependent var		5.687935
S.E. of regression	3.467406	Sum squared resid		276.5268
Long-run variance	24.95939			

Table 4.8 Augmented Dickey-Fuller Test for Model 2

Variable	Level	1 st Difference	Critical value @5%	Order of integration
ISGDP		6.229685***	2.935001	I(1)
M3/GDP		5.706805***	2.935001	I(1)
CPS/GDP		5.866151***	2.935001	I(1)
GDP		8.252894***	2.935001	I(1)
BA/GDP		4.228118***	2.935001	I(1)

Note that ***, **, * indicates significance at 1%, 5% and 10% respectively

Source: Extract from Eviews 9.0

Table 4.9 Johansen Cointegration Test

Series: ISGDP, CPS/GDP, GDP, M3/GDP, BA/GDP				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.563190	88.91864	69.81889	0.0007
At most 1 *	0.503193	54.96013	47.85613	0.0093
At most 2	0.311706	26.27843	29.79707	0.1206
At most 3	0.146161	10.96332	15.49471	0.2138
At most 4 *	0.103615	4.484792	3.841466	0.0342
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.563190	33.95850	33.87687	0.0489
At most 1 *	0.503193	28.68170	27.58434	0.0361
At most 2	0.311706	15.31511	21.13162	0.2674
At most 3	0.146161	6.478532	14.26460	0.5526
At most 4 *	0.103615	4.484792	3.841466	0.0342
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: Extract from Eviews 9.0

Table. 4.10 Dynamic Least Squares (DOLS)

Dependent Variable: ISGDP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CPS_GDP	0.799457	1.067447	0.748943	0.4615
GDP	9.17E-05	0.000177	0.517141	0.6100
M3_GDP	-2.096668	1.704200	-1.230295	0.2310
BA_GDP	-0.390596	0.631405	-0.618614	0.5422
C	57.26683	10.36020	5.527580	0.0000
R-squared	0.699050	Mean dependent var		29.29495
Adjusted R-squared	0.489694	S.D. dependent var		5.046192
S.E. of regression	3.604783	Sum squared resid		298.8726
Long-run variance	23.48675			

Source: Extract from Eviews 9.0

Table 4.11 Augmented Dickey-Fuller Test for Model 3

Variable	Level	1 st Difference	Critical value @5%	Order of integration
ASGDP		7.054653***	2.935001	I(1)
M3/GDP		5.706805***	2.935001	I(1)
CPS/GDP		5.866151***	2.935001	I(1)
GDP		8.252894***	2.935001	I(1)
BA/GDP		4.228118***	2.935001	I(1)

Note that ***, **, * indicates significance at 1%, 5% and 10% respectively

Source: Extract from Eviews 9.0

Table 4.12 Johansen Cointegration Test

Series: ASGDP, CPS/GDP, GDP, M3/GDP, BA/GDP

Unrestricted Cointegration Rank Test (Trace)

Hypothesized	Trace	0.05		
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.574079	95.27119	69.81889	0.0001
At most 1 *	0.451931	60.27765	47.85613	0.0022
At most 2 *	0.346802	35.62210	29.79707	0.0095
At most 3 *	0.266831	18.16121	15.49471	0.0194
At most 4 *	0.124165	5.435688	3.841466	0.0197

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized	Max-Eigen	0.05		
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.574079	34.99354	33.87687	0.0367
At most 1	0.451931	24.65555	27.58434	0.1134
At most 2	0.346802	17.46089	21.13162	0.1513
At most 3	0.266831	12.72552	14.26460	0.0863
At most 4 *	0.124165	5.435688	3.841466	0.0197

Max-eigenvalue test indicates 1 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: Extract from Eviews 9.0

Table 4.13 Dynamic Least Square

Dependent Variable: ASGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BA_GDP	0.827165	0.887518	0.931999	0.3610

CPS_GDP	-1.014481	1.500428	-0.676127	0.5057
GDP	7.74E-05	0.000249	0.310673	0.7588
M3_GDP	-0.871747	2.395461	-0.363916	0.7192
C	26.70043	14.56253	1.833502	0.0797
R-squared	0.330002	Mean dependent var		23.38598
Adjusted R-squared	-0.136084	S.D. dependent var		4.024830
S.E. of regression	4.289956	Sum squared resid		423.2855
Long-run variance	46.40453			

Source: Extract from Eviews 9.0

Descriptive statistics, the descriptive statistic was computed to shed light on the critical variables. The results from each analysis were tested for significance at alpha (α) – 0.05 level of significance and of interpretations followed. From the descriptive results, the mean values showed average of each variables as ASGDP (22.88%), SGDP (46.30%), ISGDP (24.73%), CPSGDP (11.91%), M3GDP (15.89%), and BAGDP (24.17%). The median values are quite close to the mean for most variables, suggesting fairly symmetric distributions except for GDP (mean = 45,962; Median = 11,501) indicating strong right skewness. The standard deviations are moderate for percentage variables ranging between 4 – 8 % but extremely large for GDP (62,608) indicating high variability and the presence of large outliers. Again, GDP showed strong positive skewness of – (1.42) and is leptokurtic (kurtosis > 4). This imply heavy right tail and outliers. On the other hand, ASGDP is moderately positive and skewed as well leptokurtic; others such as SGDP, ISGDP, CPS, GDP, M3GDP, BAGDP were near – normal with mild skewness and moderate kurtosis. Finally, the statistical summary indicates that the majority of the estimated parameters; CPS, ISGDP, M3GDP and BAGDP exhibits relatively symmetric distributions, as evidenced by the proximity of their mean and median values and a non-significant Jarque-Bera test results. In **contrast**, ASGDP and GDP displayed significant departures from normality ($p < 0.05$), with GDP in particular showing pronounced positive skewness and high kurtosis, reflecting the influences of extreme values. The findings underscored the importance of assessing distributional properties prior to econometric modeling. The correlational matrix reveals several patterns. The results of correlation examine the relationship between financial sector development variables and real sector output growth. Results showed that SGDP and CPSGDP are positively correlated ($r = 0.597$, $P < 0.01$), indicating that greater credit to the private sector is associated with higher economic development or growth performance. These findings align with the theory that financial sector development can stimulate economic activity by improving resource allocation and investment. SGDP and BAGDP also displayed a positive correlation ($r = 0.488$, $P < 0.01$), suggesting that an expansion of banking system assets relative to GDP is associated with improvement in the real sector output. This highlight the role of the banking sector depth in supporting macroeconomic

outcomes. Again SDGDP and GDP are positively correlated ($r=0.342, P<0.05$), though the association is weaker than those with financial sector development indicators. This suggests that while GDP levels are associated with growth or (its proxies), financial sector variables showed even stronger relationships with development measures. Finally, SGDP and M_3 GDP exhibited a moderately strong positive relationship ($r=0.588, P<0.01$). Broad money supply (M_3) relatively associated with SGDP reflecting the importance of financial system or monetary depth in economic performance. Correlation between the industrial sector relative to GDP and variants financial sector development indicators of CPSGDP, BAGDP, GDP and CPSGDP analysis revealed important relationships relevant for understanding the dynamics between financial development and the real sector output growth. ISGDP negatively correlated with all other financial and economic indicators. With CPSGDP negative correlation of $-0.653 (P<0.01)$, indicating that higher levels of credit to the private sector are associated with lower agricultural output. Similarly, with GDP correlation of $-0.380 (P<0.05)$ implying that as the overall size of the economy increases, the proportion of output growth in agriculture decreases. Again, with M_3 GDP, the correlation standing at $-0.633 (P<0.01)$ showed that greater liquidity (money supply relative to GDP) is associated with a reduction in agricultural productivity or output and finally, with BAGDP correlation of $-0.646 (P<0.01)$, suggesting that as total banking assets expands relative to GDP contribution of the agricultural sector to GDP drops or declines.

The correlation analysis showing the relationships between ASGDP and CPSGDP, BAGDP, GDP and M_3 GDP, which examined how financial sector development relates to the performance of the agricultural sector within the overall economy. From the results, ASGDP and BAGDP showed a weak positive correlation ($r=0.14, P=0.4655$), which is statistically not significant. This suggests that changes in the size of bank assets relative to GDP do not have a strong or reliable relationship with agricultural sector's contribution to the overall economy. In the same vein, ASGDP and CPSGDP showed a near-zero correlation ($r=0.011, P=0.9444$), meaning that private sector credit growth has virtually no association with agricultural sector output. This is an indication that apparently most of the credit extended to the private sector is directed toward sectors other than the agricultural sector. Also, ASGDP and GDP also exhibits a very weak negative link ($r=-0.017, P=0.9128$). This outcome could be interpreted within the context of structural transformation, whereas economies grow, the share of agriculture in GDP typically decline. On the other hand, ASGDP and M_3 GDP ($r=-0.023, P=0.8826$) showed a similarly not significant negative correlation, suggesting that the growth in money supply relative to GDP has no meaningful influence on agriculture's share of GDP.

Stationarity Test

According to Granger and Newbold (1974) and Engel and Granger (1987), to ascertain the non stationary nature of time series econometric models or integrated variables, the unit root test on

the univariate time series to confirm their stationarity series using the augmented Dickey-fuller test, from the results for each series were tested at level and at first difference, with the null hypothesis being the presence of a unit root (ie non-stationarity). All the variables; SGDP, ASGDP, LSGDP, M3GDP, BAGDP and CPSGDP were nonstationary at levels but became stationary at first differencing. The ADF statistics at first difference 1(1) are highly significant at 1% levels in all cases. The absolute value of the ADF statistic is greater than the 5% critical value (-2.93500001), thus suggests rejection of null hypothesis of unit root at first difference. The implications of the integrations order one include to validates the use of cointegration analysis of Johansen tests or Engel-Granger Procedures for test of long-run relationships among the studied variables.

Johansen Cointegration Test:

Johansen cointegration results using both the trace and maximum Eigenvalue statistics to investigate the existence of long-run equilibrium relationships among the variables (SGDP, CPSGDP, GDP, M3GDP, and BAGDP) the trace test reject the null hypothesis of no cointegration at 5% levels of significance, with a trace statistic value of 93.96527 exceeding the critical value of 69.81889 (P-Value -0.0002).

The null hypothesis of at most one cointegrating equation is rejected, with the trace value of 58.5277 c(critical value = 47.856113, P-value = 0.0006. The test also rejected the null hypothesis at most two cointegration equations, truce 30.20207 slightly above the critical value of 29.79707 (P –value = 0.0449). However, the null hypothesis of at most three was not rejected, suggesting that there are almost three (3) meaningful long-run relationships. The maximum Eigenvalue also rejected hypothesis of no cointegration of max-eigen = 35.43750, critical – 33.87687, P-Value = 0.0323). The result further rejected the null hypothesis of two cointegration equations is not rejected indicating a maximum of two long-run relationships. Based on both trace and maximum Eigen statistics, there is a strong evidence of at least two cointegration relationships between SGDP, CPSGDP, GDP, M3GDP and BAGDP at 5% level of significance. The pressure of cointegration suggests that the variables shared a common stochastic trend, implying that they are more together in the long-run despite possible short-term deviation.

The Dynamic Ordinary Least Square DOLS; the results of the DOLS regression was used to examined the long-run relationship between contribution of the service sector to GDP (STDP) and the selected financial sector development indicators (M3GDP, BAGDP and CPSGDP). The model explains 78% of the variation in the service sector's contribution to GDP (SGDP) indicating a strong overall fit. However, based on a 5% significance level, nonofthe independent variables were significantCPSGDP has a positive with no significant relationship with SGDP P-value of 0.8704 greater than 0.05, this suggests that CPS does not have significance influence on

the service sector's performance or its contribution to GDP. This may be due to inefficient intermediation or that credit favours non-service sectors. The result of BAGDP and SGDP showed a negative association but not significant with a R value of 0.4953 greater than 0.05. This again means that a rise in total bank assets does not necessarily enhance service sector's performance; this may be connected to the fact that assets accumulation by banks does not translate into productive investment in service-driven industries.

On the other hand, the relationship between SGDP and CPSGDP and GDP showed a negative association, but statistically not significant. Probably because of transformation or measurement limitations, where GDP performance is being driven by the non-service sector. M3GDP showed a positive association at the long-run with the service sector contribution to GDP (SGDP) however the relationship is found not significant at 5% level. The positivism of this relationship suggests substantially that greater liquidity in an economy may support service sector expansion, possibly by easing access to funds for operations.

Model 2; industrial sector contribution to GDP and the selected financial development indicators. The ADF test showed that all the variables were not stationary at level rather at first difference 1(1) which satisfies the cointegration test. The Johansen cointegration results from the table above, using both the trace and maximum Eigen values, in examining the long-run relationships between the industrial sector contribution with the selected financial development indicators at 5% significance level. The trace rejects the null hypothesis of no cointegration of trace-statistics of $= 88.91864 > 69.81889$; $P = 0.0007$ At most one; $54.96013 > 47.85613$; $P = 0.000(3)$. At most two: the null hypothesis is not rejected ($P = 0.1206$) showed that at least there exist two cointegration relationships at 5% level. While maximum Eigen value rejects the null hypothesis of no cointegration Maxi-eigen statistics $> 23.95850 > 38.668170 > 27.58434$; $P = 0.0361$) confirming the presence of at most two cointegration relationships. This finding implies that the industrial sector and the selected financial development parameters employed in the study shared long-run equilibrium association despite short-term fluctuations. Given that all the variables were previously shown to be cointegrated at order 1(1), and found to be cointegrated, this again validates the use of the dynamic Ordinary Least Square to estimate the long-run dynamics and short-run adjustments of industrial sector performance in response to financial development variables. The DOLS result of model again, showed existence of long-run equilibrium relationships between industrial sector's contribution to GDP and financial development indicators. As such the model explains 69.9% of variation in ISGDP ($R^2 = 0.6991$), with adjusted Rs-square of 48.97% indicates a moderate strong fit. The CPSGDP to ISGDP showed a positive but no significance relationship with P-value of 0.4615 greater than 0.05. The positive sign indicates a potential positive relationship between credit expansion and industrial output while lack of statistical significance implies that credit does not have meaningful long-run influence on

the industrial sector in the sample context. The GDP and ISGDP present a weak but no significant positive associations suggesting that overall economic growth may not be directly reflected in industrial sector expansion, possibly due to structural imbalance or concentration in non-industrial sectors. The negative link between M3GDP and ISGDP suggest that broad money supply relative to GDP may be associate with decrease in industrial sector output though not statistically significant which may be attributed to inefficiencies in monetary transmission or mal-allocation of credit that does not favour the industry sector. Bank assets to GDP and ISGDP indicates a P- value of 0.5422 and a coefficient of -0.3906 , this means absent of statistical association between banking sector assets accumulation. This may reflect that financial deepening in Nigeria has not been accompanied by targeted lending in favour of the productive industrial sectors. It is observed that nonof the financial development indicators have a statistically significance long-run effect on ISGDP. The model explains a moderate portion of ISGDP variation. It also suggests that financial development alone is not sufficient to drive the industrial sector growth in Nigeria. Future policy must focus on quality, accessibility and sectoral targeting of financial resources alongside broader industrial policy reforms.

Model, Results of ADF unit root test for the variables included model 3, which investigates the relationship between the agricultural sector's contribution to GDP (ASGDP) and selected financial development indicators. From the results, all variables were non stationary at level but became stationary at first differencing, indicating there are integrated at order/one 1(1). The ADF test statistics for all the variables are significantly greater in absolute value than the 5% critical value of -2.935001 , with each variable being significant at 1% level thereby confirming rejection of the null hypothesis of the unit root. This again justifies the test of cointegration of whether a long-run equilibrium relationships between the agricultural sector's contribution to GDP and the selected financial development indicators.

From the Johansen cointegration test results of the series ASGDP, CPSGDP, GDP, M3GDP and BAGDP, the trace and maximum Elgen value statistics to determine the number of cointegration equations, evaluated at 5% level significance. The trace test rejects the null hypothesis of no cointegration and also the presence of at most one, two, three and four cointegration equations. The maximum-Elgen test indicates one cointegration equations at 5% significance level. Both the trace and max. Elgen tests provide strong evidence of cointegration among the variables, indicating the presence of at least one stable long-run equilibrium relationship between the agricultural sector and the financial development indicators (CPSGDP, M3GDP, BAGDP and GDP). This is a confirmation that though the variables are individually non-stationary 1(1), they move together in the long-run, maintaining a consistent economic relationship.

Dynamic Ordinary Least Square (DOLS) result of ASGDP and variables of financial development in assessing the long-run impact of financial development on agriculture GDP. The result showing the relationship between ASGDP and its repressors (CPSGDP, M3GDP and BAGDP). The DOLS model indicates a weak fit, with an R – Square of 33.0% and a negative adjusted R-square of (-13.6%), suggesting that the included financial development variables explain only a small and statically unreliable portion of the long-run variation in agriculture GDP (i.e agriculture contribution to GDP). Bank Assets to GDP (BAGDP) has a positive coefficient (0.8272), implying that increased bank assets relative to GDP could enhance agricultural sector output. However, with a P- value of 0.3610. This effect is not statistically significant credit to the private sector (CPSGDP) showed a negative coefficient (-1.0145), suggesting an inverse relationship with ASGDP. Nonetheless, the relationship is weak and statically not significant (P= 0.5057), possibly indicating inefficiencies or malallocation of credits within the sector. GDP though positively signed (7.74E-05), exerts a negligible and not statistically significant implying it does not have any effect on ASGDP (P=0.7588), suggesting that the overall economic growth does not necessarily translate into growth within the agricultural sector. Broad money supply (M3GDP) to GDP is negatively associated with ASGDP (-0.87.17), but the effect is not significant (P = 0.7192), suggesting that monetary expansion may not directly benefit the agricultural subsector in the long-run.

Conclusion policy implications and recommendations it is widely acknowledged in economic literature that financial development enhance economic growth, though some argued that the effect of financial development is more is the developed countries than the developing economies others position favoured developing countries more. In view of this diversities, this study focus on investigating the impact financial development on the real sector output growth in Nigeria, a developing country. The real sectors service included in the study; services, industry and agriculture which the financial development indicators were proxied by credit to the Private Sector (CPS), broad Money Supply (MB) and bank asset (BA) all relative to GDP. Surprisingly, none of the financial development proxies exhibited a statistical significant long-run relationship with the three (3) sectors in Nigeria. This is a confirmation to that fact that financial development or expansion has not effectively translated into tangible growth or performance improvements in Nigeri’s real sectors. This outcome that.... Stands in partial contrast and partial alignment with earlier findings in empirical literature.

For example, results from the service sector model suggests that none of the financial indicators had a statistically significant impact on service’s sector contribution to the overall economic performance in Nigeria measured by GDP, this align with finding of Alashi (2016) and Nzoha and Okereke (2009). Their findings support the notion that financial development or deepening in its current form may not have effectively stimulated the service sector output growth and

contribution to GDP. However, this position contradicts findings by Hashim and Mamman (2014), who reported a positive and significant link between credit to the private sector and real sector growth. The divergence may be attributed to a number of factors in Nigeria's credit system as well policy direction of the monetary authorities.

Mode 2; the industrial sector result also like the service sector does not show any statistically significant impact of the financial sector expansion. The outcome is partial agreement with Oderiran (2010), who observed a weak causal link between financial development and economic output. However, this position contradicts Sampson (2010) and Kabir (2018) whose findings revealed a robust linkage between financial development and GDP growth. The situation in Nigeria could reflect structural issues in the Nigeria's industrial base, inadequate infrastructure, poor governance, and lack of access to affordable long-term financing. The results and our finding suggest that even where financial resources are available, they may not be directed towards productive investments within the industrial sector.

Mode 3; our findings in respect of the agricultural sector revealed lack of significance across the financial indicators and a negative coefficient for CPSGDP which indicates a potential adverse relationship. These findings are consistent with Alusi (2022) who highlighted capital constraint and the exclusion of the agricultural sector from formal financial system as a major challenge. This position also agreed with Jaul and Ma (2008), who reported in efficient credit allocation in China despite financial sector growth. Our finding contradicts that of Puative and Piabuo (2017) who contended that CPS positively influenced economic growth Cameroon. The negative coefficient on CPSGDP could reflect misallocation or underutilization of available credit in the agricultural sector due to neglect in favour of oil and gas or the informal nature of most agricultural enterprises.

Collectively, these findings suggest that Nigeria's financial sector expansion, though are expanding in normal terms, are not supportive or effectively integrated with the real sector economy. The absence of significant relationships across the three (3) sectors raises concerns about the quality of financial intermediary access to credit, and alignment of financial services with sector-specific development needs.

The findings revealed that financial sector growth proxied by domestic credit to the private sector, broad money supply and total bank assets does not have significant influence on the real sectors' output growth in the long-run. These outcomes underscored a fundamental disconnect between financial sector and the productive sectors of the Nigeria economy. Despite the various reforms, initiatives aimed at financial deepening amongst others. This is a clear perception that financial development in Nigeria have not translated into substantial growth or structural

transformation within the productive or real sectors. The weak intermediation between financial system and the real sector players negates the Nigeria (CBN) financial inclusive drive and sustainable economic development strategies. Among various reforms, sector specific targets and actions critical to repositioning the financing system as a catalyst for real sector development and for achieving Nigeria's long-term economic goals, including economic diversification have not yielded desired outcomes, have the need for policy focus enforcement monitoring alongside targeted interventions as well strong institutional frameworks to drive meaningful transformation in Nigeria is desirable recommendations; fact that in the light of the findings financial sector development indicators do not significantly impact performance of Nigeria's real sectors services, industry and agriculture in the long-run, these policy actions are proposed;

- That the Central Bank of Nigeria (CBN) and regulating authorities should ensure enforcement of existing targeted financial policies that address the unique needs of the real sector. That if possible, the monetary authority comes up with complimentary policy stands in the light of its sustainable economic growth agenda and diversification.
- That the Central Bank of Nigeria (CBN) and regulatory authorities should ensure enforcement of existing targeted financial policies that address the unique needs of the real sectors.
- The government of Nigeria should improve and ensure compliance with existing sector-based credit guarantee scheme like the ACGSF, SMECGS or otherwise come up with sectors oriented credit guaranteed schemes.
- The supervisory and regulatory authorities of financial institutions should prescribe stringent penalties for deviants on sectoral credit allocation directive via CBN role in influencing credit allocation through policies and initiatives in the form of LDR, like the real sector support facility (RSF).
- Though the Central Bank of Nigeria (CBN) has shifted away from the explicit mandatory sectoral allocation of credits as a primary monetary policy tool, it is imperative that the mandatory sectoral allocation of credit to the preferred sectors be reintroduced rather than the present market-based approach.
- The CBN's efforts to support key sectors such as agriculture and the manufacturing sectors aimed at diversifying the Nigerian economy away from reliance on a single oil and gas sector should not be mere policy on paper but be pursued vigorously to achieving its objectives as the government at all levels is called on to providing the necessary environment, intentional policy stands and economic support to realizing our economic diversification aspiration and yearnings of Nigerians and as it considered penitent given our snail pace economy.

- The government at all levels is by this study revelations encouraged to promote Public Private Partnerships (PPPs) initiatives that will motivate and mobilize private investment in the real sector especially the green economy.
- The study recommends that policy makers and financial regulators should support evidence-based policymaking by investing in regular data collection and sectoral performances and monitoring aimed at tracking the activities the real sectors.

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