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EFFECT OF SECTOR-SPECIFIC DOMESTIC INVESTMENTS ON ECONOMIC GROWTH IN NIGERIA: A COMPARATIVE ANALYSIS OF AGRICULTURE, MANUFACTURING, AND SERVICES

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This paper investigates the relative contributions of industry, services, and agriculture to Nigeria's economic growth. The research study covers a period of 24 years, from 2000 to 2023. Data are obtained from the Central Bank Statistical Bulletin and World Development Indicators. The estimation technique employed shall be the Autoregressive Distributed Lag. These results make it clear that if economic development is to be witnessed in Nigeria, the country needs investments in domestic agriculture. On one hand, industry significantly negatively impacts economic growth in the long run while being insignificant in the short run, according to this research. Investment in local manufacturing negatively influences economic development in Nigeria; this suggests inefficiency or a structural bottleneck that may stand in the way of the capacity of the country for growth. However, the service industry is a major determinant of economic growth in the country because of its positive influence on the economic development of Nigeria. The findings of this study suggest that such policies aimed at increasing domestic investments in services and agriculture while tackling the challenges of manufacturing industries would be critical for long-term economic growth, considering the proportionate importance of each sector. Based on this, the report calls for an investment approach that is more sophisticated, taking into consideration the needs of individual sectors and their linkages to the Nigerian economy in general.

Keywords: Domestic Investments, Economic Growth, Agriculture, Manufacturing, Services.

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Introduction

Sustained economic growth remains the most important factor for governments and policymakers worldwide since it constitutes the bedrock of macroeconomic stability, ensures lower unemployment, tames inflation, and enhances living standards (Adewale & Adeyemo, 2025). The need to do so in Nigeria has come at a time when there is an interaction of structural challenges and changing policies. The country has been grappling with foreign exchange shortages aggravated by the CBN's restriction of access to FX, constraining both imports and investment inflows (Adewale, 2025). The removal of fuel subsidies in 2023 exacerbated the inflationary pressures (Adewale, 2025). Headline inflation rose to as high as 34% in mid-2024 and then receded to 23.7% y-o-y by April 2025, partly on account of the recent stabilization in the naira, alongside improved food production. Similarly, the AfCFTA, effective since 2021, has opened up opportunities for the expansion of intra-African trade but simultaneously present some competitive pressures on the domestic industries. And the mixed impacts include a 15% increase in non-oil exports in 2024 (Adewale, 2025). These are bound to reinforce the need for targeted investments in surmounting volatility and realizing growth potential. Conventionally, GDP embodies economic growth, reflecting a rise in national output over time and often associated with higher employment and welfare gains (Adewale, 2025; Saleem & Zaheer, 2018).

Both classical and modern growth theories identify investment as playing a prime role in the course of economic growth. The Harrod-Domar model defines capital accumulation as an indispensable component of the sustenance of growth rates, stating that growth in output is proportional to the savings rate and the capital-output ratio, while the neo-classical growth model of Solow-Swan builds on this with the introduction of diminishing returns to capital, hence suggesting that in the absence of technological change, growth stagnates. The so-called endogenous growth theories focus on human capital and institutional factors as long-term productivity drivers. Going by these theories, dependency on oil raises fears over responsiveness, since in a country like Nigeria where oil products constitute about 90% of exports, its share of GDP during recent years has been only about 6-8%, leaving the rest of the economy vulnerable to external shocks. Against this backdrop, domestic investment represents the sum of actual capital expenditures made by local firms, entrepreneurs, and public initiatives and is usually encouraged through policies involving tax incentives, infrastructure provision, and access to credit facilities (Adewale, 2025).

Traditionally, Nigeria has relied on foreign direct investment to fill capital gaps, but domestic investments are much more stable and conform to the local economy. Other recent strategies put in place by the government under the Tinubu administration include infrastructure, such as the Renewed Hope Infrastructure Fund; industrialization through special economic zones; and agro-modernization through initiatives such as the National Agricultural Growth Scheme. This, thus, recognizes the heterogeneities of the sectors that investments in agriculture can enhance food security and rural employment, while manufacturing enhances value addition and exports, and services drive innovation in fintech and telecommunications. The interesting thing is that the CBN's FX reforms allowed for the unification of the exchange rate in 2023-2024, clearing $4.2 billion in FX backlogs by early 2025 and improving liquidity and investor confidence, though at first, it devalued the naira from N460/$ to over N1,500/$, fuelling cost-push inflation. Savings in subsidy removal were estimated at N5.4 trillion of fiscal space by 2024, while its removal had disproportionately raised the rates of poverty in low-income households by 40%. While the reduction of AfCFTA tariffs has seen agricultural exports increase by 20%, they have challenged manufacturing with import competition.

Empirically, Nigeria's domestic investment, proxied by GFCF, increased from 12.93% of GDP in 2018 to 25.5% in 2022, and improved further to about 28% in 2023, 30% in 2024, and an estimated 32% in 2025, buoyed by inflows due to reforms. In parallel, GDP growth quickened from 2.74% in 2023 to 3.43% in 2024 and up to 4.23% in Q2 2025, the fastest in four years. By sectoral decomposition, services contributed 58.76% of GDP in Q2 2025, agriculture 26.17%, and industry-including manufacturing at approximately 12.68%-17.31%. Oil output rebounded to 1.68 million barrels per day in Q2 2025, buoying industry by 20.42%. The major contributors to these were 18.28% from trade and agriculture, underlining non-oil diversification. And yet, the nagging questions remain: To what extent does investment growth reflect inclusive growth, and what are the differential impacts on sectors where reforms have taken place?

While a body of literature establishes links between aggregate domestic investment and growth, such as Ewubare and Worlu 2020, Ogunjinmi 2022, and Amade et al. 2022, these studies often fail in terms of capturing sectoral nuances. Sectoral-focused studies, such as Ijirshar et al. 2019 and Kukaj & Ahmeti 2016, utilize data from well before 2023, when the removal of subsidies inflated costs as much as 200% in the transport and food segments, and unification of FX subsequently stabilized reserves at US$32.7 billion by 2024. The resulting temporal chasm in understanding post-reform dynamics means, for instance, that such research misses how agriculture remained resilient, up 3.5% in 2024 despite floods, or the contraction of manufacturing due to high energy costs. Very few studies have looked at inter-sector complementarities, such as service-sector fintech supporting agricultural value chains, or trade-offs, like diverting funds away from manufacturing to services in light of AfCFTA competition.

This research responds to these lacunae by disaggregating domestic investments in agriculture, manufacturing, and services; evaluating their respective contributions to GDP growth; quantifying long-run complementarities (e.g., through cointegration analysis); and identifying policy-relevant trade-offs. It thus presents evidence-based recommendations on the optimization of investment allocations with a view toward furthering sustainable development in the changing economic environment of Nigeria.

Literature Review

Conceptual Literature

Concept of Domestic Investment

A cost associated with increasing the economy's total capital stock is real domestic investment. This is done through acquiring additional assets that produce capital as well as assets that couldgenerate income inside the local economy (Adewale, 2025). The whole capital stock is mostly made up of physical assets. Savings cannot deliver the higher economic growth rates needed for economic development. Bank loans and personal savings account for the remaining two-thirds of investment funding provided in part by the corporate sector. As a consequence, savings no longer operate as a barrier to investment demand.

When interest rates are low, more individuals will invest in and purchase such assets as their prices always reflect their discounted worth, increasing aggregate demand (Adewale & Ozabeme, 2025). Therefore, domestic interest rates affect investment more than total savings. Investment money is equivalent to savings plus freshly developed funds that are available for deposit. In the new investment equation, banks play a part. Efforts to reduce spending have affected savings, investment performance, and slow and sluggish growth (Oyedokun & Ajose, 2018). Investment has also been impacted by these policies.

Concept of Economic Growth

Economic growth is the increase over time in the market value of the goods that an economy generates, after accounting for inflation (Adewale, 2025). It is often determined using the real GDP growth rate, which is frequently reported as a percentage of the total population (Adewale & Adeyemo, 2024). Economic development is frequently defined as an improvement in an economy's capacity to generate goods and services when compared across historical periods (Adewale, 2025). It is often represented in nominal or real terms, with real terms taking inflation into account. Economic growth is simply an increase in an economy's total production (Adewale, 2025). Overall productivity increases are often, but not always, followed by increases in average marginal productivity. This depicts how workers in a given economy may typically boost their output. Increased immigration or birth rates may result in overall economic growth without an increase in average marginal productivity (Adewale & Adeyemo, 2024).

Theoretical Literature

Neoclassical Theory of Investment

The neoclassical investment theory, which explains the behavior of investment and its relation to economic growth, was developed in the 19th and 20th centuries during industrialization. It postulates that under perfect competition, economic agents optimize resource allocation; thus, investment is determined by the expected return less costs (Solow, 1956). In the neoclassical theory, much emphasis has been put on the role of capital accumulation toward explaining growth-where savings translate into investment that leads to increased output per worker (Barro & Sala-i-Martin, 1995). In the Solow-Swan model, economic growth emanates from capital deepening but suffers from diminishing returns in the absence of technological progress, hence a steady-state equilibrium (Solow, 1956). Implicitly suggested to Nigeria is that the increase in domestic savings and efficiency of investment determines growth, although the quality of institutions amongst other exogenous factors may enhance the multiplier effect of such variables (Aghion & Howitt, 1992). Therefore, domestic investment and capital formation are indispensable prerequisites for sustained economic growth.

Structural Change Theory

The theory of structural change, pioneered by Lewis (1954), is concerned with the transformation of the economic structure of underdeveloped countries from agrarian to industrialized. It assumes that growth consists of shifting labor and capital out of low-productivity sectors such as subsistence agriculture and into high-productivity modern sectors such as manufacturing and services. According to Lewis, 1954; Chenery & Syrquin, 1975, under this dual-sector model, labor surplus emanating from agriculture feeds the expansion of industry, which gradually bids up wages, raising productivity over time. This readjustment leads to overall growth through higher productivity and spillovers of technological improvements. According to Kuznets, this can be traced in 1966. For a country like Nigeria, where agriculture employs 35% of the workforce but contributes only 23% to its GDP as of 2024, structural shifts into manufacturing-12-16% of GDP-and services, 58%-are fundamental for diversification away from oil dependency. This is according to the African Development Bank, 2024. The serious impediment to such reallocation brought about by barriers such as skill mismatches and deficits in infrastructural endowments implies that targeting investments in these vital areas becomes important. (Herrendorf et al., 2014).

Empirical Literature

Abdulkarim (2023) analyzed investment strategies' impact on Nigeria's growth from 1981-2020 using ARDL, finding short-term positive links with portfolio investments and private finance but negative effects from inflation and FDI. Amade et al. (2022) applied ARDL

to 1981-2022 data, revealing short-term GDP influences from interest rates and FDI, with stronger long-term effects from domestic investment and exchange rates. Ogunjinmi (2022) examined 1981-2019 data via ARDL, identifying short-term negative correlations between investment and growth, with no significant long-term ties. Nnamocha and Anyanwu (2022) used OLS for 1980-2020, showing positive growth impacts from public and private sector investments, contrasted by negative effects from portfolio investments. Ewubare and Worlu (2020) investigated 1990-2017 using OLS and ECM, finding no significant short- or long-term GDP effects from sectoral investments in agriculture, manufacturing, and services. Umar and Zakari (2020) employed ARDL on 1996-2017 quarterly data, noting negative impacts on domestic investment from corruption and FDI, but positive from interest rates. Oyedokun and Ajose (2018) assessed 1980-2016, confirming long-term positive and causal links from domestic investment to growth via Granger tests. Okafor et al. (2024) used ARDL on 1981-2022 data, confirming long-term positive domestic investment impacts on growth, outweighing FDI.

Comparative international evidence provides context. Bakari and El Weriemmi (2022) found no long-term ties between domestic investment and growth in Arab countries from 1990-2020 using VECM. Anwar and Elfaki (2021) reported positive growth effects but negative environmental impacts in Indonesia (1965-2018). Aslan and Altinoz (2021) noted negative growth influences in emerging economies (1980-2018). Zamilur and Ferdaus (2021) identified positive investment effects in Pakistan (1973-2018). Fakraoui and Bakari (2019) saw no enduring links in India (1960-2017). Saleem and Zaheer (2018) found negative investment impacts in unspecified contexts (1980-2016). Bakari (2017) confirmed long-term positive effects in Malaysia (1960-2015).

Empirical results on domestic investment and growth are heterogeneous. Nigerian studies largely show positive long-run relationships (Oyedokun & Ajose, 2018; Okafor et al., 2024), but the short-run results are mixed, with negatives coming from inflation or policy shocks (Ogunjinmi, 2022; Abdulkarim, 2023). Sectoral analyses, such as that by Ewubare and Worlu (2020) show muted or positive effects as a result of sectoral allocation, thus seeming to contrast with aggregate perspectives. International comparisons show this outcome to be context-specific; it is positive in Asia (Bakari, 2017; Anwar & Elfaki, 2021) but absent or negative in other context (Bakari & El Weriemmi, 2022; Aslan & Altinoz, 2021). From a methodological standpoint, ARDL is mostly dominant for cointegration, while OLS/ECM captures dynamics. Overall, evidence does indeed support investment's role in fostering growth, but it points toward needs for stability and efficiency.

Despite advances, there are still gaps in sectoral disaggregation in Nigeria in light of recent reforms. Most existing studies rely on data before 2023 and do not, therefore, capture changes brought about by subsidy removal, the unification of FX rates, and AfCFTA impacts, which have changed investment landscapes. Indeed, very few of them dwell on the sectoral impacts of agriculture, manufacturing, and services. This study bridges such gaps by estimating the contributions made by these sectors through the application of an ARDL approach using annual data for 2000-2023 and by modeling the dynamics of long-run relationships for policy insights.

Methodology

The ex-post facto research design has been adopted for this study, drawing on secondary time series data from the Central Bank of Nigeria Statistical Bulletin and World Development Indicators. The period 2000-2023 was selected because it represents the beginning of coherent sector-level investment data in Nigeria and captures the major structural and macroeconomic transitions that shaped sectoral investment behavior, such as the 2004 banking consolidation, the post-2014 oil shock, the recession in 2016, and COVID-19 disruptions.

Measurement of Variables

DAG, DMA, and DSA are proxies of domestic investments in agriculture, manufacturing, and services, respectively. These were proxied with sector-specific Gross Fixed Capital Formation reported in the CBN Statistical Bulletin. These series were deflated to constant prices with the GDP deflator to remove distortions induced by inflation. Real GDP growth rate (GDPGR) was employed to proxy economic growth, while the control variable considered was inflation (INF) measured by an annual consumer price index.

Model Specification

Following Ewubare and Worlu (2020), the study begins with a general functional form:

$$\text{GDPGR} = f(\text{DAG, DMA, DSA, INF}) \quad (1)$$

To capture sector-specific effects, the model was disaggregated into three ARDL equations.

$$\Delta\ln GDPGR_t = \beta_0 + \sum_{i=1}^{n} \alpha_1 \Delta\ln \text{GDPGR}_{t-1} + \sum_{i=1}^{n} \alpha_2 \Delta\ln \text{DAG}_{t-1} + \\ + \sum_{i=1}^{n} \alpha_3 \Delta \text{INF}_{t-1} + \beta_1 \ln \text{DAG}_{t-1} + \beta_2 \text{INF}_{t-1} + \varepsilon_t \quad (2)$$

$$\Delta\ln GDPGR_t = \beta_0 + \sum_{i=1}^{n} \alpha_1 \Delta\ln \text{GDPGR}_{t-1} + \sum_{i=1}^{n} \alpha_2 \Delta\ln \text{DMA}_{t-1} + \\ + \sum_{i=1}^{n} \alpha_3 \Delta \text{INF}_{t-1} + \beta_1 \ln \text{DMA}_{t-1} + \beta_2 \text{INF}_{t-1} + \varepsilon_t \quad (3)$$

$$\Delta\ln GDPGR_t = \beta_0 + \sum_{i=1}^{n} \alpha_1 \Delta\ln \text{GDPGR}_{t-1} + \sum_{i=1}^{n} \alpha_2 \Delta\ln \text{DSA}_{t-1} + \\ + \sum_{i=1}^{n} \alpha_3 \Delta \text{INF}_{t-1} + \beta_1 \ln \text{DSA}_{t-1} + \beta_2 \text{INF}_{t-1} + \varepsilon_t \quad (4)$$

Δ is the first difference notation, are the long run coefficient of the explanatory variables, $\alpha 1$–$\alpha 4$ will be the short run slope coefficients

ARDL was chosen because the variables exhibit a mixture of I(0) and I(1) integration orders, and the sample size is relatively small, which makes ARDL more reliable than other cointegration methods.

Inflation was included as the control variable because it captures macroeconomic stability conditions that directly influence investment productivity and aggregate demand.

To ensure model reliability, the study conducted serial correlation tests, heteroskedasticity tests and normality tests. The ARDL bounds test was used to establish long-run cointegration.

RESULTS

Table 1

Summary Statistics

	GDP	AGR	MAN	SER	INF
Mean	5.050559	529.4256	1746.318	738.0742	13.15093
Std. Dev.	3.630260	617.4811	1853.853	573.7389	4.495604
Skewness	0.430121	1.668690	1.818227	0.488318	0.500142
Kurtosis	4.287476	4.939208	6.026573	2.012451	3.137941
Jarque-Bera	2.397611	14.89863	22.38394	1.929072	1.019595
Probability	0.301554	0.000582	0.000014	0.381160	0.600617
Observations	24	24	24	24	24

Source: Authors' Compilations, 2025

Summary statistics give an overview of the variables under study: Gross Domestic Product Growth Rate, domestic investments in agriculture, manufacturing, and services, and the inflation rate. Such statistics will be important in showing the distribution, variability, and central tendencies of the data.

The average of GDPGR stands at about 5.05%, while the standard deviation is 3.63%. This suggests moderate fluctuation in economic growth during the period analyzed. For investments in agriculture, the average stands at 529.43, though with a very high value for its standard deviation-617.48-skewing the distribution very highly. Besides, investments in manufacturing have an average of 1,746.32 and a standard deviation of 1,853.85, which means the variable presents very high volatility. In contrast, investments in services, DSA, have a lower mean of 738.07 and a standard deviation of 573.74, showing moderate variability. The inflation rate, INF, averages 13.15% with a relatively low variability as evidenced by a standard deviation of 4.50%.

Skewness: For most variables, the skew is positive. GDPGR and DSA have a right-skewedness of 0.43 and 0.49, respectively, indicating moderate asymmetry, while DAG and DMA are more strongly positively skewed at 1.67 and 1.82, respectively, due to the higher values of investments in these sectors. Also, the inflation rate shows mild positive asymmetry at 0.50 for INF.

In terms of kurtosis, GDPGR (4.29), DAG (4.94), and DMA (6.03) display leptokurtic distributions, characterized by sharper peaks and heavier tails compared to a normal distribution. Conversely, DSA (2.01) is platykurtic, indicating a flatter distribution, while INF (3.14) is close to the threshold of a normal distribution.

Further results from the Jarque-Bera test assess the normality of the variables. GDPGR, DSA, and INF all have probabilities greater than 0.05, considered not to deviate from normal distribution significantly. However, the DAG and DMA have a probability of 0.000582 and 0.000014, respectively; this shows that their distributions are significantly different from normality. Each variable has a total of 24 observations, enough for any form of analysis.

Table 2

Stationarity Test

At Level					
	LGDP	LAGR	LMAN	LSER	LINF
t-Statistic	-4.3828	-3.5856	-2.4823	-1.8102	-2.5318
Prob.	***0.0107***	***0.0547***	***0.3326***	0.6666	0.3113
	**	*	n0	n0	n0
At First Difference					
	d(LGDP)	d(LAGR)	d(LMAN)	d(LSER)	d(LINF)
t-Statistic	-6.1221	-4.9132	-4.7728	-7.3516	-4.6461
Prob.	***0.0003***	***0.0041***	***0.0050***	***0.0000***	***0.0087***
	***	***	***	***	***

Source: Authors' Compilations, 2025

Stationarity test results in Table 2 illuminate the time-series properties of the concerned variables: GDP as LGDP, agricultural investment as LAGR, manufacturing investment as LMAN, service investment as LSER, and inflation as LINF. It identifies whether the variables at levels or after differencing either contain unit roots, indicating non-stationarity, or are otherwise stationary.

Results are mixed at their original levels. Also, from the result of the augmented Dickey-Fuller test, one observes that LGDP is stationary at 5% significance level with a t-statistic of -4.3828 and a probability of 0.0107. It therefore implies that in LGDP, there is no unit root. LAGR, though stationary, was significant only at 10%, having obtained a t-statistic of -3.5856 with a probability of 0.0547. However, the LMAN, LSER, and LINF are not stationary at their levels, since their respective probabilities of 0.3326, 0.6666, and 0.3113 are greater than the conventional thresholds of significance. It means that unit roots exist in these variables, and thus they are not suitable for direct analysis in their level forms.

After taking the first difference, all the variables are stationary at a 1% significance level. First difference of GDP, d(LGDP), is stationary with a t-statistic of -6.1221 and a probability of 0.0003. Also, the first difference of agricultural investment, d(LAGR), is stationary with the t-statistic of -4.9132 and a probability of 0.0041. Other variables like manufacturing investment (d(LMAN)), service investment (d(LSER)), and inflation (d(LINF)) are also found to be stationary with probabilities of 0.0050, 0.0000, and 0.0087, respectively. These results

confirm that all the variables, after transformation, meet the stationarity criteria and hence are suitable for econometric modelling.

From the result of the stationarity test, the importance of changing non-stationary variables into stationary ones is again realized. GDP and agricultural investment are stationary at levels while manufacturing investment, service investment, and inflation are stationary after differencing. All series, after differencing, exhibit strong stationarity; hence, any subsequent analysis will be robust. This also confirms the suitability of ARDL as the main estimation technique.

Table 3

Domestic Investments on Agriculture and Economic Growth

Bound Test for Cointegration				
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	11.99115	5%	3.1	3.87
Long Run Effects				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LAGR	3.250172	0.453448	7.167678	0.0000
LINF	0.342345	0.134843	2.538844	0.0275
C	13.86307	2.335147	5.936702	0.0001
Short Run Effects				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LAGR)	3.457138	1.081762	3.195839	0.0085
D(LINF)	-0.155791	0.085509	-1.821934	0.0957
CointEq(-1)*	-0.890855	0.114019	-7.813185	0.0000
Diagnostic Tests				
R-squared = 0.823500			Autocorrelation Test (p-value) = 0.052	
Adjusted R-squared = = 0.760464			Normality Test (p-value) = = 0.827255	
Durbin-Watson stat = = 2.927988			Heteroskedasticity Test (p-value) = 0.7914	

Source: Authors' Compilations, 2025

Using a limits test for cointegration and the short- and long-term impacts, Table 3 examines the potential association between domestic agricultural investment and economic growth as measured by the GDP growth rate.

Since the F-statistic of 11.99115 is more than the upper limit critical value (I(1)) of 3.87 at the 5% significance level, Table 3 demonstrates a long-term link between domestic agriculture investment, inflation, and economic growth. Consequently, the aforementioned series are cointegrated and develop in tandem throughout time.

AGR, or domestic agricultural investment, has a major and favorable long-term impact on GDPGR. A unit increase in agricultural investment results in a 3.25 unit increase in the GDP growth rate, according to the coefficient value of 3.2502 (p = 0.0000), demonstrating the critical role that agriculture plays in the economy. Additionally, INF has a substantial and beneficial effect (p = 0.0275, coefficient value of 0.3423). This suggests that growth is supported by modest inflation.

With a coefficient of 3.4571 (p = 0.0085), AGR continues to be positive and significant in the short term for explaining economic growth. But with a coefficient of -0.1558 and p = 0.0957, inflation has a negative but hardly noticeable impact. With a coefficient of -0.8909 and a p-value of 0.0000, the error correction term CointEq(-1) is both negative and highly significant, ensuring that the model will converge to the long-run equilibrium after a shock. This indicates that within any given time, around 89% of any disequilibrium from the long-run equilibrium is rectified.

With an R-square of 0.8235, the explanatory power is quite great, accounting for 82.35% of the fluctuations in GDPGR caused by the independent variables. The strength of the model is supported by an adjusted R-square of 0.7605. In this instance, the Durbin-Watson value of 2.93 indicates that there is no residual autocorrelation. The autocorrelation test, p = 0.052, supports this claim. The heteroskedasticity test shows that there is no heteroskedasticity since the p-value is 0.7914, yet the normality test also shows that the residual is normally distributed with p = 0.8273.

Table 4

Domestic Investments on Manufacturing and Economic Growth

Bound Test for Cointegration				
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	5.439918	5%	3.1	3.87
Long Run Effects				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LMAN	-2.759799	0.722964	-3.817337	0.0017
LINF	0.184837	0.190223	0.971685	0.3466
C	19.96960	5.476145	3.646653	0.0024
Short Run Effects				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LMAN)	2.925165	2.769126	1.056349	0.3075
D(LINF)	-0.168312	0.132242	-1.272759	0.2225
CointEq(-1)*	-0.885698	0.173328	-5.109952	0.0001
Diagnostic Tests				
R-squared = 0.657640			Autocorrelation Test (p-value) = 0.887	
Adjusted R-squared = = 0.600580			Normality Test (p-value) = = 0.819842	
Durbin-Watson stat = = 1.772069			Heteroskedasticity Test (p-value) = 0.9556	

Source: Authors' Compilations, 2025

By using the limits test for cointegration to determine the long-term and short-term impacts, Table 4 below illustrates the link between domestic investment in the manufacturing sector (MAN) and economic growth (GDPGR).

The variable vector exhibits a stable long-term connection because F-Statistic 5.4399 is more than the upper limit critical value I(1) 3.87 at 5%, indicating that the three variables domestic investment in manufacturing, inflation INF, and GDPGR do in fact cointegrate.

The long-term domestic manufacturing investment (MAN) has a negative coefficient estimate of -2.7598 (p-value=0.0017) in comparison to GDPGR. This suggests that for every unit drop in the growth rate of industrial investment, the GDP growth rate rises by 2.76 units. It could also point to structural difficulties, inefficiencies, and other reasons that limit the industrial industry. GDPGR is insignificantly favorably impacted by inflation-INF, with a coefficient estimate of 0.1848 at p = 0.3466.

With a coefficient estimate of 2.9252 and a p-value of 0.3075, the domestically invested manufacturing sector, or MAN, has a short-term positive but negligible impact on GDPGR. Additionally, LINF, or inflation, has a negative but negligible impact (coefficient = -0.1683; p = 0.2225). With a coefficient of -0.8857 and a p-value of 0.0001, the error correction term, CointEq(-1), is negative and highly significant. This demonstrates the model's capacity to converge to the long-term equilibrium. In each interval, around 88.57% of any divergence from equilibrium is rectified.

The adjusted R-squared of 0.6006 shows its strength, while the R-squared of 0.6576 is reasonably explanatory in GDPGR. This would suggest potential autocorrelation at a Durbin-Watson statistic of 1.77, however an autocorrelation test result of p = 0.887 would prove otherwise. The normality test also demonstrated the residuals' normality at p = 0.8198, while their lack at p = 0.9556 demonstrated heteroskedasticity.

Table 5

Domestic Investments on Service and Economic Growth

Bound Test for Cointegration				
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	4.910720	5%	3.1	3.87
Long Run Effects				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LSER	2.454302	0.730018	3.361975	0.0035
LINF	0.010500	0.174703	0.060104	0.9527
C	18.70061	5.152290	3.629572	0.0019
Short Run Effects				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LSER)	6.320736	1.898410	3.329490	0.0037
CointEq(-1)*	-0.699208	0.146060	-4.787138	0.0001
Diagnostic Tests				
R-squared = 0.620267			Autocorrelation Test (p-value) = 0.492	
Adjusted R-squared = = 0.602184			Normality Test (p-value) = = 0.788062	
Durbin-Watson stat = = 1.715225			Heteroskedasticity Test (p-value) = 0.5655	

Source: Authors' Compilations, 2025

The examination of domestic investment in the service sector (SER) and its connection to GDPGR (economic growth) is shown in Table 5 using the limits test for cointegration to examine both the short- and long-term dynamics.

At the 5% significance level, the F-statistic of 4.9107 is higher than the upper limit critical value I(1) of 3.87. This demonstrates that there is a long-term correlation between GDPGR, inflation INF, and domestic investment in services. To put it another way, these variables move together over time due to cointegration.

With a p-value of 0.0035 and a long-term coefficient of 2.4543 for domestic investment in the service sector to GDPGR, this relationship is statistically significant. This demonstrates the significance of the service sector as one of the development engines by demonstrating that for every unit increase in investment, GDP growth grew by 2.45 units. Nonetheless, with a coefficient of 0.0105 and a p-value of 0.9527, INF has a negligible positive impact, indicating that inflation has no discernible impact on GDP growth in this model.

With a coefficient of 6.3207 (p = 0.0037), short-term domestic investment in the service sector has a positive and significant relationship with GDPGR, indicating that service sector investments contribute to economic growth in the short term. With a negative and very significant coefficient (= -0.6992, p = 0.0001) for the error correction term CointEq(-1), the model ultimately corrects short-term shocks to return to its long-term equilibrium. Throughout every period, around 69.92% of any departure from the long-run equilibrium is restored.

The R-squared value of 0.6203 indicates the model explains a significant amount of the variance in GDPGR. With an adjusted R-squared of 0.6022, the model's strength is shown. An autocorrelation test of p = 0.492 also revealed that there is extremely little possibility of autocorrelation, as shown by the Durbin-Watson statistic of 1.72. Additionally, the results of the normality test at p = 0.7881 show that the residuals are normally distributed, and p = 0.5655 shows that there is no heteroskedasticity.

Discussion of Findings

These findings confirm the positive contribution of agricultural investment to the long-run growth of the Nigerian economy, consistent with neoclassical theory, which stresses capital accumulation in productivity gains (Solow, 1956). In a Nigerian setting, such resilience by this sector arises out of its role in structural transformation through the shifting of surplus labour from subsistence farming into value addition activities, hence promoting gainful employment, poverty reduction, and food security in the face of persistent challenges such as climate variability and insecurity (Lewis, 1954). A case in point is the 3.5% sectoral growth, with agricultural investments supporting this growth against floods and disruption to supply chains in 2024-2025, while overall GDP expanded by 3.9% in H1 2025. This corroborates Abdulkarim (2023) and Amade et al. (2022), who reported the role of sectoral investments in long-term growth through spillovers, like improved rural infrastructure leading to better non-farm activities. On the other hand, the short-

run negative effects, as shown in some models, resonate with Ogunjinmi (2022), probably due to inefficiencies in policy, as was the removal of subsidies in 2023, when initially input costs surged before stabilizing. In theory, this underpins the caveat by endogenous growth models that investment needs supportive institutions and human capital to avoid diminishing returns (Romer, 1986).

In contrast, the negative impact of manufacturing investment on growth challenges neoclassical expectations, where capital deepening should propel industrialization and output (Harrod, 1939; Domar, 1957). This divergence from Nnamocha and Anyanwu (2022), who found positive private sector effects, may arise from data vintage pre-2023 studies overlooked recent reforms like FX unification, which devalued the naira and exacerbated import-dependent costs. Instead, our results align with Ewubare and Worlu (2020) and Bakari and El Weriemmi (2022), revealing no long-run ties in contexts plagued by structural barriers. In Nigeria, manufacturing's underperformance is analytically rooted in chronic issues: unreliable power supply causes losses equivalent to 10% of sales, forcing reliance on costly generators amid lending rates hovering at 35% in 2025. Insecurity, bleeding the economy $15 billion annually, disrupts northern supply chains, while logistics bottlenecks at ports create N14 trillion raw material deficits in H1 2025. Policy instability and FX volatility further deter investments, leading to premature deindustrialization with the sector's GDP share declining despite a 20.42% oil rebound in Q2 2025. From a structural change perspective, these frictions hinder resource reallocation from agriculture to manufacturing, trapping the sector in low-productivity cycles (Chenery & Syrquin, 1975). Regarding inflation's dual role supportive in short-run models (e.g., lubricating wage adjustments) but harmful long-term (eroding purchasing power) this reflects Phillips curve dynamics, where moderate inflation (eased to 21.9% by July 2025) aids growth via demand stimulus, but spikes from FX shocks (48.9% of businesses cite as top concern) amplify uncertainty and costs, justifying targeted CBN interventions.

The innovations within telecommunications and fintech, in general, spur knowledge spillovers, due to the positive service sector effects emanating from endogenous growth theory. Contributing 58% to GDP in 2025, despite broader challenges, services have fared well, reflecting global trends and studies like that by Bakari (2017) and Amade et al. (2022). This dominance again points to the potential for leapfrogging, whereby digital transformation skips over manufacturing hurdles, although it remains vulnerable to policy shifts.

These sectoral disparities underline the complexities of investment and growth, determined by governance and external shocks, not capital alone. Policies to tap the potential should focus on infrastructure upgrading-smart grid expansion to increase current power generation of 4,000 MW, security enhancements through regional cooperation, FX stability through the accumulation of reserves to $32.7 billion in 2024, and consistent regulations attractive to investments. Such reform could reconcile the contradictions with the earlier findings and achieve a balanced structural transformation with sustained growth projections of 3.4-4% in 2025.

5. Conclusion

This paper analyzed the impact of domestic investments in agriculture, manufacturing, and services on the economic growth of Nigeria, using an ARDL modeling approach on annual data from 2000 to 2023. The empirical results indicated a positive long-run relationship between agricultural investment and GDP growth, serving to enhance productivity and rural development. On the other hand, a negative long-run effect was reported by manufacturing investment, proving inefficiency in the use of capital amidst structural bottlenecks. The investment in the service sector was strongly positive, influenced by innovation and digital growth. These findings highlight the heterogeneous dynamics across sectors in the Nigerian economy, masked by aggregate investment trends. These results therefore imply that shifting resources from low-yielding sectors to high-yielding sectors may accelerate growth, while resolving the obstacles in the manufacturing sector is of prime importance for balanced development.

Policies should be designed with empirical insight and Nigeria's post-reform environment. For agriculture, where positive changes are recorded, policymakers must magnify investments through increased budgetary allocations that attain the 10% Maputo Declaration threshold, while leveraging NATIP 2022-2027 for mechanization and stabilizing prices with export-enhancing initiatives. For manufacturing, the negative coefficient requires urgent reforms: placing tax incentives to ease fiscal burdens, trimming interest rates to alleviate access to credit, and infrastructure priority to avoid a shortage of power. Besides, enthroning FX stability through unification to cut import costs amidst AfCFTA competition. For services, build on positive impacts by advancing digital economy priorities, such as expanding fintech regulations and incentives, to sustain growth and foster linkages with agriculture via agritech platforms. Cross-sectorally, promote public-private partnerships to address insecurity and policy inconsistencies, aligning with efforts to attract investments.

Notwithstanding these contributions, the study has limitations. The reliance on annual data from 2000-2023 provides only 24 observations, limiting statistical power in ARDL estimations, particularly for short-run dynamics. Data frequency issues arise from potential inconsistencies in reporting, with measurement errors possible in informal sector activities, which dominate Nigeria's economy. Omitted variables, such as corruption, oil price volatility, and insecurity, could bias results, as these socio-economic constraints are

prevalent in Nigerian econometric studies. The issue of endogeneity between investment and growth was dealt with through the bounds test, but unmodeled external shocks may remain, perhaps arising from the effects of naira devaluation.

Future research could extend this by incorporating omitted factors, such as the effects of climate change on agriculture or global trade dynamics under AfCFTA, using vector autoregression for multi-equation analysis or panel data across the Nigerian states for regional insights.

REFERENCES

1. Abdulkarim, Y. (2023). A systematic review of investment indicators and economic growth in Nigeria. *Humanities and Social Sciences Communications, 10*(1), 1-13.

2. African Development Bank. (2025). *African economic outlook 2025*. https://www.afdb.org/en/documents/african-economic-outlook-2025

3. Adewale, A. A. (2025). Effect Of Monetary Policy Rates and Inflation on The Nigerian Exchange Group (NGX). *Kerbala International Journal of Management and Economics, 13*(48), 13–26. https://doi.org/10.63540/kijme.v13i48.3656

4. Adewale, A.A. (2025). Effects Of Budget Deficit and Money Supply on Inflation in Nigeria. Business Excellence & Management, 15(3), 21-39. https://doi.org/10.24818/beman/2025.15.3-02

5. Adewale, A. A. (2025). Capital Expenditure and Inflation: Is Government Spending Worsening Nigeria's Economic Crisis? *Indonesian Journal of Business and Economics*, *8*(1),1116-1137. https://ijbe.uniku.ac.id/pub/article/view/2

6. Adewale, A. A., & Adeyemo, A. A. (2024). Effect of unemployment and inflation on Nigerian economic growth: a time-series analysis. *The Journal of VN Karazin Kharkiv National University. Series: International Relations. Economics. Country Studies. Tourism*, (19), 47-56. https://doi.org/10.26565/2310-9513-2024-19-05

7. Adewale, A. A., & Ozabeme, L. S. (2025). Impact of Entrepreneurship Financing on Economic Growth in Nigeria (1996-2023). *Bayero University Journal of Finance, 2(1), 28–45. https://doi.org/10.5281/zenodo.17558158*

8. Aghion, P., & Howitt, P. (1992). A model of growth through creative destruction. *Econometrica, 60*(2), 323–351. https://doi.org/10.2307/2951599

9. Amade, M. A., Mohammed, I., Ibisanmi, E. V., Owolabi, A. T., & Joshua, U. (2022). Interaction between domestic investment, foreign direct investment, and economic growth in Nigeria. *Ömer Halisdemir Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 15*(2), 261-275.

10. Anwar, N., & Elfaki, K. E. (2021). Examining the relationship between energy consumption, economic growth, and environmental degradation in Indonesia: Do capital and trade openness matter?. *International Journal of Renewable Energy Development, 10*(4), 769.

11. Aslan, A., & Altinoz, B. (2021). The impact of natural resources and gross capital formation on economic growth in the context of globalization: Evidence from developing countries on the continent of Europe, Asia, Africa, and America. *Environmental Science and Pollution Research, 28*(26), 33794-33805.

12. Bakari, S. (2017). The impact of domestic investment on economic growth: New evidence from Malaysia. *Journal of Smart Economic Growth, 2*(2), 105-121.

13. Bakari, S., & El Weriemmi, M. (2022). Causality between domestic investment and economic growth in Arab countries. *MPRA Paper No. 113077*.

14. Bakari, S., & El Weriemmi, M. (2022). The nexus between domestic investment and economic growth in Arab countries: A VECM analysis (1990–2020). *International Journal of Economics and Finance*, *14*(5), 112–130. https://doi.org/10.5539/ijef.v14n5p112

15. Barro, R. J., & Sala-i-Martin, X. (1999). *Economic growth*. MIT Press.

16. Chenery, H., & Syrquin, M. (1975). *Patterns of development, 1950-1970*. Oxford University Press.

17. Ewubare, D. B., & Worlu, L. K. (2020). Effect of domestic investment on economic growth in Nigeria. *International Journal of Economics and Financial Management, 5*(1), 1-8.

18. Fakraoui, N., & Bakari, S. (2019). Tie among domestic investment, exports, and economic growth: Empirical analysis from India. *Journal of Smart Economic Growth, 4*(1), 1-15.

19. Harrod, R. F. (1939). An essay in dynamic theory. *The Economic Journal, 49*(193), 14–33. https://doi.org/10.2307/2225181

20. Herrendorf, B., Rogerson, R., & Valentinyi, Á. (2014). Growth and structural transformation. In P. Aghion & S. N. Durlauf (Eds.), *Handbook of economic growth* (Vol. 2, pp. 855–941). Elsevier. https://doi.org/10.1016/B978-0-444-53540-5.00006-9

21. Ijirshar, V. U., Anjande, G., Fefa, J., & Mile, B. N. (2019). The growth-differential effects of domestic investment and foreign direct investment in Africa. *CBN Journal of Applied Statistics, 10*(2), 139-167.

22. Kukaj, H., & Ahmeti, F. B. (2016). The importance of foreign direct investments on economic development in transitional countries: A case study of Kosovo. *European Scientific Journal, 12*(7), 288-305.

23. Lewis, W. A. (1954). Economic development with unlimited supplies of labour. *The Manchester School*, *22*(2), 139–191. https://doi.org/10.1111/j.1467-9957.1954.tb00021.x

24. Mohammed, B., Bunu, N. M., Bazza, A. H., Hassan, A. A., Adamu, M. B., Yahaya, S., Usman, A. B., & Abubakar, S. (2022). Structural change and economic growth in Nigeria. *Lafia Journal of Economics and Management Sciences*, *7*(2). https://lajems.com/index.php/lajems/article/download/228/178

25. Nnamocha, P. N., & Anyanwu, A. C. (2022). Domestic investment and economic growth in Nigeria, 1980-2020. *International Journal of Research and Scientific Innovation (IJRSI), 9*(8), 122-131.

26. Ogunjinmi, O. O. (2022). The impact of domestic investment on economic growth in Nigeria: Further evidence. *Asian Research Journal of Current Science*, 134-142.
27. Okafor, I. G., Eje, G. C., & Eja, M. E. (2024). Domestic investment and economic growth in Nigeria: An ARDL bounds testing approach (1981–2022). *Journal of African Contemporary Research*, *15*(2), 120–138.
28. Oyedokun, E. G., & Ajose, K. (2018). Domestic investment and economic growth in Nigeria: An empirical investigation. *International Journal of Business and Social Science, 9*(2), 130-138.
29. Romer, P. M. (1986). Increasing returns and long-run growth. *Journal of Political Economy, 94*(5), 1002–1037. https://doi.org/10.1086/261420
30. Saleem, M., & Zaheer, R. (2018). A study on the influence of domestic investment on economic growth during 1980-2016. *J Global Econ, 6*(3), 1-5.
31. Solow, R. M. (1956). A contribution to the theory of economic growth. *The Quarterly Journal of Economics, 70*(1), 65–94. https://doi.org/10.2307/1884513
32. Umar, A., & Zakari, J. (2020). Corruption and domestic investment relationship in Nigeria: An empirical investigation. *Gusau International Journal of Management and Social Sciences, 3*(1), 17-17.
33. World Bank. (2025). *Nigeria development update: Positive economic momentum in Nigeria, now time to bring home the gains*. https://www.worldbank.org/en/news/press-release/2025/10/08/positive-economic-momentum-in-nigeria-now-time-to-bring-home-the-gains
34. Zamilur, M., & Ferdaus, J. (2021). Impacts of domestic savings and domestic investment on economic growth: An empirical study for Pakistan. *Journal of Social Economics Research, 8*(1), 1-11.

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ВПЛИВ СЕКТОРНО-СПЕЦИФІЧНИХ ВНУТРІШНІХ ІНВЕСТИЦІЙ НА ЕКОНОМІЧНЕ ЗРОСТАННЯ В НІГЕРІЇ: ПОРІВНЯЛЬНИЙ АНАЛІЗ СІЛЬСЬКОГО ГОСПОДАРСТВА, ПРОМИСЛОВОСТІ ТА СФЕРИ ПОСЛУГ

У статті досліджено відносний внесок промисловості, сфери послуг та сільського господарства в економічне зростання Нігерії. Період дослідження охоплює 24 роки – з 2000 по 2023 рр. Емпіричні дані отримано зі Статистичного бюлетеня Центрального банку Нігерії та бази показників світового розвитку (World Development Indicators). Для оцінювання взаємозв'язків між секторальними інвестиціями та економічним зростанням застосовано методологію авторегресійної моделі з розподіленими лагами (ARDL). Отримані результати свідчать, що досягнення сталого економічного розвитку в Нігерії потребує насамперед активізації внутрішніх інвестицій у сільське господарство. Встановлено, що промисловий сектор у довгостроковій перспективі чинить статистично значущий негативний вплив на економічне зростання, тоді як у короткостроковому періоді його вплив є незначущим. Інвестиції у вітчизняне промислове виробництво негативно впливають на економічний розвиток країни, що вказує на наявність інституційної неефективності або структурних обмежень, які стримують реалізацію зростального потенціалу економіки. Водночас сфера послуг виступає ключовим детермінантом економічного зростання в Нігерії завдяки своєму позитивному впливу на динаміку валового внутрішнього продукту. Результати дослідження засвідчують, що державна політика, спрямована на нарощування внутрішніх інвестицій у сектор послуг і сільське господарство за одночасного подолання структурних проблем промисловості, є критично важливою для забезпечення довгострокового економічного зростання з урахуванням відносної ролі кожного сектора. На цій підставі обґрунтовано необхідність більш диференційованого та комплексного інвестиційного підходу, який враховує специфіку окремих секторів і характер їх взаємозв'язків у загальній структурі економіки Нігерії.

Ключові слова: внутрішні інвестиції; економічне зростання; сільське господарство; промисловість; сфера послуг.

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