



Domestic Investment and Economic Growth Nexus in Nigeria: A Post Recession View

Onochie, Stanley Nwabuisi¹, Ozegbe, Azuka Elvis¹ and Nwani, Stanley Emife^{1*}

¹*Department of Economics, Lagos State University, Ojo, Lagos, Nigeria.*

Authors' contributions

*This work was carried out in collaboration with all authors without contradictions and disagreements.
All authors contributed their respective quota to ensure this work comes out well.*

Article Information

DOI: 10.9734/ARJASS/2019/v8i230096

Editor(s):

(1) Dr. Shiro Horiuchi, Faculty of International Tourism, Hannan University, Japan.

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Complete Peer review History: <http://www.sdiarticle3.com/review-history/47115>

Original Research Article

Received 12 October 2018
Accepted 03 February 2019
Published 20 February 2019

ABSTRACT

This study investigates the impact of domestic investment on economic growth in Nigeria, using annual secondary time series data spanning 37 years from 1981 to 2017 extracted from the CBN statistical bulletin. Real GDP was used to proxy economic growth, while the key explanatory variable is domestic investment with other control variables as capital expenditure, oil export earnings, exchange rate and inflation rate. The study embarked on pre-estimation test such as unit root test and the bounds co-integration test which informed our methodological choice of Autoregressive Distributed Lag (ARDL). The short run and long run estimates show that domestic investment has positive but insignificant impact on economic growth in Nigeria. This finding departs from those of previous writers due to the improved analytical framework employed in this study. On the basis of our findings, the study recommends a compulsory individual and national savings to boost the level of domestic investment in the country so as to achieve the much desired economic growth and development.

Keywords: Domestic investment; economic growth; ARDL.

1. INTRODUCTION

The concept of Investment has continued to occupy the front burner of economic literature from both empirical and theoretical angles. Investment is seen as one of the economic processes that countries attach great values to as an integral part of the economic growth. Essentially, investment could be domestically generated or could emerge from foreign sources. This study emphasizes on the former. However, both domestic and foreign investments have great implications for economic growth and development especially in an emerging market economy like Nigeria. From literature, authors in recent times have argued for domestic investment as key tool for economic expansion and development through capital formation. In the light of the above, [1] posits that domestic investment has a relationship with various economic variables, which made countries seek to guide the investment decision and create the appropriate climate for economic development and maximizing wealth, thus making researchers in the economy pay great attention to study investment in from several perspectives. Again, [2] domestic investment through the capital formation is not just paramount but serves as a prerequisite for the geometric acceleration of growth and development of every economy as it provides domestic resources that can be used to fund the investment effort of the economy. The essence of this economic growth is for the creation of economic and social overhead capitals (or costs), which leads to increase in national output and income through the creation of employment opportunities and reduction of the vicious circle of poverty both from the demand side and supply side. Furthermore, [3] disclose that Investment both private and public comes with a lot of benefits such as job creation, increase in per-capita income, reduction in the level of poverty, increase in standard of living, and ultimately leads to output expansion. The study by [4] reveals that the multiplier effect of domestic investment is greater on economic growth episodes than those of foreign direct investment. However, unlike other study, they were quick to point out the inherent problem of instability in the value of domestic investment. Beside instability as identified, domestic investments (public and private) are grossly inadequate in less developed economies which are largely responsible for capital gap, infrastructural deficit and inappropriateness, poor human capital development as reflected in

healthcare services and the quality of educational system.

Real Domestic investment could be linked directly with the capital spending on new projects in the sectors of public utilities and infrastructure such as roads projects, water connections, creation of urban plans and construction projects like housing and extensions of electricity and power generation, as well as social development in the areas of security, education, health and communication projects and tourism. These have tremendous implications for economic growth.

The debate on the roles of domestic investment in economic growth and development is an age long exercise starting from the classical, neo-classical and the neo-keynesians from the theoretical angle. However, the recent years, empirical evidence have re-generated a hit debates among scholars as regards its vitality in economic progress of nations, see [1,2,3,4,5]. The quest for the attainment of economic growth and development has prompted the government to embark on massive reconstruction and public-sector investments. However, records of the past three decades have generated a lot of concern over the slow pace of industrial and infrastructural development which is directly determined by the volume of domestic investment. Though Nigeria has experienced an unprecedented increase in her revenue profile through oil exports, she has equally enjoyed cycles of an oil boom with successive governments harnessing the resources of the nation to execute its budget. Ironically, there has been an increase too in her expenditure pattern overtime. Paradoxically, it does not appear as if the increase in capital expenditures has translated into the increased capital formation and consequently economic growth and development. The problem becomes that Nigeria domestic investment as well as capital accumulation has not been growing and has declined by over 30% between 2000 and 2017 [6]. This is the crux of this study. Furthermore, Nigeria macroeconomic indicators show the pitiable performance of a Domestic investment for the period 1986 till date [7]. For example, domestic investment declined from 12.3% of GDP in 1991 to 8.3% of GDP in 1992, this may be partly due to the reduced public investment, which fell during the same period. Domestic investment then increased to 12.5% in 1993 and to 16% in 1994. Later, it fell continuously to 8.9% in 1996. Between 2001 and 2010, the ratio averaged 13%; it peaked at 16.2% in 2002 but

fell again to 15.2% in 2010 [7]. The trends have continued to decline till date.

While previous studies [5,3,4,1,2] employed the Ordinary Least Square approach, this study proposes the utilization of the Autoregressive Distributed Lag (ARDL) technique so as to simultaneously estimate unbiased and efficient short run coefficients and the long run dynamics. These would be the contribution to knowledge by this study.

In the face of this problem, this study attempts to investigate the impact of domestic investment on economic growth in Nigeria with the objectives of ascertaining the trends in domestic investment, its effects on economic growth and elicit other variables that have significant effects on economic growth in the country. The study is structured into five distinct sections. Section one contains the introduction of the study. Section two reviews the literature while section three discusses the theoretical framework and empirical literature review. Section four presents and analyzes the data and section five details out conclusion and recommendations.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Review of Relevant Empirical Literature on Domestic Investment and Economic Growth

A flurry of literature exists on domestic investment and economic growth. Though most of these studies are done for the developing countries, its applications in developed is not obvious negligible. This, amongst several studies includes [8,9,10,11,12,13,14]. The flurry of literature on the relationship between domestic investment and economic growth in developing countries is attributed to the fact that developing countries are characterized by attractive but inconsistent investment policies. This is obvious in Nigeria as we moved from the era of regulatory control to deregulation and to guided deregulation. These array of empirical studies agreed that there is equilibrium between the growth proxy and the independent variables including domestic private investment. Two major events seem to have dimmed the relevance of the debate carried out in the different studies. The first is the array of estimation techniques and test procedures available to researchers. The second is the development in the Nigerian

economy vis-à-vis, investment policies in the country. These events are precisely responsible for the resurgence in interest among researchers. The preceding events have led to the further consideration of the relationship between domestic private investments and economic by the authors using the error correction methods. From the literature reviewed, the authors argues that a slump in general economic activity will compel private investors to postpone their investment decision giving room for the boosting of foreign investment in the tradable sector while shrinking the non-tradable sector.

A recent perusal of empirical literature review that for Malaysia, [1] investigates the relationship between domestic investment and economic growth in that country, with the objective of ascertaining if domestic investment bears significant impact on RGDP. The study analysed annual data for the periods between 1960 and 2015 using Correlation analysis, Johansen co-integration analysis of Vector Error Correction Model and the Granger-Causality tests. The study found that there is a positive effect of domestic investment, exports and labors on economic growth in the long run, however, there is no relationship between domestic investment and economic growth in the short run. It is obvious from this study that in addition to domestic investment, exports and labour constitute major sources of economic growth in Malaysia.

From the Nigerian perspective, [3] examines the impact of domestic investment on economic growth in Nigeria using annual time-series data from 1970-2013. Multiple regression and co-integration methods were employed to analyze the data. The objectives of this study includes: to examine the impact of private and public investment on economic growth and to analyze the trends of private investment, public investment and economic growth in Nigeria from 1970- 2013. The study divided government expenditure into productive and protective expenditures, and found out the crowding in and crowding out impact of government investment on private investment. The result of the analyzed data illustrated that private investment and government productive investment had positive but insignificant impact on economic growth; while government protective investment had negative as well as insignificant impact on economic growth within the period under study. In addition, the study illustrated that government

investment on administration, economic, social and community services crowded in private domestic investment but only investment on economic services was statistically significant for the period under study. Based on the results, the recommends that government should improve on its budget implementation, rationalization and give more priority to expenditures on economic and social services that make up for private investment, rather than expenditures on national assembly expenses as well as transfers that replaces private investment. In addition, deposit money banks should be encouraged to provide more long-term loans to the real sector of the economy.

Furthermore, [4] re-consider the empirical investigation of the link between domestic private investment and economic growth in Nigeria, using the Cob-Douglas model framework, the study estimated the model using Error Correction Modeling (ECM) approach with annual data covering 1970 to 2012. The study shows a significant relationship between domestic investment and real gross domestic product (RGDP) both in the long-run and short-run. The study thus recommends that foreign direct investment has a complimentary role to play in driving economic growth in Nigeria. This result though corroborates the findings of [3], it departs from it by documenting a short-run significant relationship between domestic investment and growth in Nigeria which clearly contradicts the report of the former.

Within the same discussion, [2] evaluates Nigerian domestic investment and its impact on Economic Growth. With Objective of ascertaining why domestic investment has remained stunted over the years, the study modeled economic growth as a function of domestic investment and government expenditure. By adopting the Co-integration test to determine the long run relationship between domestic investment and economic growth in Nigeria for the period of 1980-2016. The Granger causality test was utilised to determine the causality between domestic investment, and economic growth within the same period. The results reveal that a long run significant relationship exists between the domestic investment and growth. Under the period of investigation, Domestic Investment Granger cause economic growth in Nigeria and from the regression result, domestic investment positively influences real gross domestic product. The study thereby recommends that government should create an enabling environment for

domestic investment to increase through the adoption of macroeconomic policies that will boost investment opportunities in Nigeria.

2.2 The Harrod-Domar Growth Theory

The H-D model is popularly known as the two gap model in development literature. This theory was postulated by Sir Fredrick Harrods and Evsey Domar who attributed economic growth to total national savings, capital efficiency (MEC) and depreciation in capital stock. In their earlier analysis, the model for growth was limited to the closed economy [15].

$$\text{Thus: } Y_g = f(s, k, \delta) \quad (1)$$

$$Y_g = \beta(s) - \delta \quad (2)$$

In review of this theory, the early model of Harrod and Domar was built on the assumption of exogeneity of variables under consideration. Furthermore, technical progress was neglected as a key determinant of growth and finally, the assumption of fixed factor intensity which does not allow factor substitution is unrealistic.

In a revised work by the authors, the model was extended to the external sector where foreign capital inflow plays an amplifying role in achieving economic growth. This version of H-D model proves relevant to less developed countries (LDCs) like Nigeria which lacks the required savings capacity to stimulate the required minimum investment for growth. But, the extension of the scope to external sector opens up opportunities for LDCs to obtain funds from the international market for domestic investments to attain the desired growth rate.

The H-D model with international sector is:

$$Y_g = \beta(s + f) - \delta \quad (3)$$

Where β MEC

s savings

fforeign capital inflow ($\frac{f}{y}$)

δ depreciation

This theory has become relevant to developing economies after the extension to international trade which serves as an integral source of foreign exchange inflow for LDCs to compliment domestic Investment. This theory provides the framework for your model specification.

3. METHODOLOGY OF THE STUDY

3.1 Data Source and Definition

The time series data on domestic investment, real gross domestic products, exports, exchange rate and inflation rate and government capital investment were collected between 1981 and 2017 from the Central Bank of Nigeria (CBN) online statistical publication, World Bank (WB) Data, and Index Mundi.

3.2 Methods of Data Analysis

The method of data analysis involves both descriptive and analytical procedures. The descriptive tools entail the use of graphs and tables. The analytical tools are based on econometric analyses. The empirical analyses involve the use of diagnostic tests such as unit root tests for stationarity of each of the variables and co-integration to examine the long-run relationship among the variables. The parameters were estimated using Autoregressive Distributed Lag (ARDL) technique. The choice of ARDL method of regression is based on its ability to simultaneously estimate the long run and short run dynamics of the model. In addition, so long as the variables are integrated of order zero and one, the result of the ARDL estimates possesses the idea properties of unbiasedness, efficiency, consistency and sufficiency. The analyses were carried out using E-view 10.

3.3 Model Specification

$$RGDP = f(DIN, KEXP, OX, EXRT, INF) \quad (5)$$

$$RGDP = b_0 + b_1DIN + b_2KEXP + b_3OX + b_4EXRT + b_5INF + u \quad (6)$$

$$\ln RGDP = b_0 + b_1 \ln DIN + b_2 \ln KEXP + b_3 \ln OX + b_4 \ln EXRT + b_5 \ln INF + u \quad (7)$$

$$\ln RGDP_t = b_0 + b_1 \ln RGDP_{t-1} + b_2 \ln DIN_t + b_3 \ln KEXP_t + b_4 \ln OX_t + b_5 \ln EXRT_t + b_6 \ln INF_t + u \quad (8)$$

Equation 3.4 above depicts the Autoregressive Distributed Lag Model to be estimated in the long run. However, in the short run, the error correction variable is incorporated to reflect the adjustment speed back to equilibrium in the short run. Therefore, the short run model is thus:

$$\ln RGDP_t = b_0 + b_1 \ln RGDP_{t-1} + b_2 \ln DIN_t + b_3 \ln KEXP_t + b_4 \ln OX_t + b_5 \ln EXRT_t + b_6 \ln INF_t + \text{ect}_{t-1} + e_t \quad (9)$$

A priori expectation

$b_0 > 0$: The intercept term is expected to be positive

$b_1 > 0$: RGDP in previous year is expected to have a positive effect on economic growth

$b_2 > 0$: Domestic Investment is expected to have a positive effect on economic growth

$b_3 > 0$: Government Capital Expenditure is also expected to have positive impact on inclusive growth

$b_4 > 0$: Oil Export is expected to have negative impact on inclusive growth

$b_5 < 0$: Exchange Rate is expected to have a positive impact on inclusive growth

$b_6 < 0$: Inflation is expected to have a negative impact on inclusive growth

4. RESULTS AND DISCUSSION

4.1 Descriptive Analysis

Real gross domestic product fluctuated between 1981 and 1990, however, it became stable from 1991 to 1996 and thereafter maintains a positive trend up to 2015 when the trend reversed due to the economic recession recorded as an aftermath of crude oil price fall, poor economic planning, high inflation, high interest rate, huge debt burden and policy conflicts between previous and current administrations [16]. Though this trend has reversed weakly but not convincingly.

The observed trend in Domestic Investment is similar to that of RGDP as earlier espoused. From Figs. 4.2, though unlike RGDP, exhibits a stable trend from 1981 to 1996, and the trend started rising from 1997 and got to its peak in 2014, thereafter, the trend reversed. This is very similar in cause as that of RGDP as earlier observed.

Capital expenditure of the Nigerian government has continued to vary with the variation in the value of export earnings and crude prices overtime. Periods of oil price stability is usually associated with stability in government's capital expenditure as volatility in oil price also makes capital expenditure fluctuates in the country. In this vain, from 1981 to 1989 capital expenditure was stable in the country, however, from 1990 to 1996 capital expenditure rose tremendously reaching its first peak, afterwards, it fluctuated enormously up to 2004 and thereafter started rising till 2014 when due to economic recession and dwindling revenue inflow capital expenditure witnessed another stagger till date.

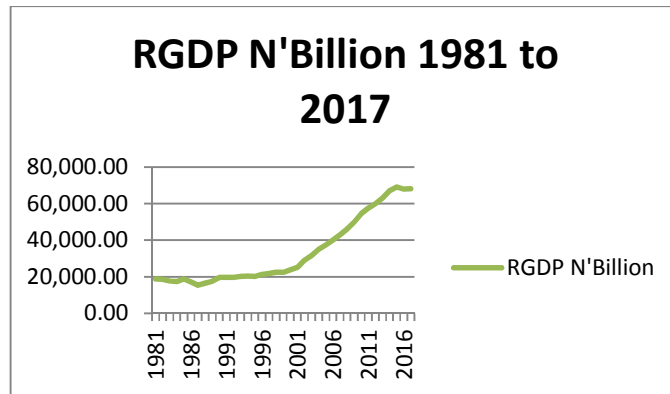


Fig. 4.1. Trends in Real Gross Domestic Product (RGDP)
 Source: Author's computation using CBN data

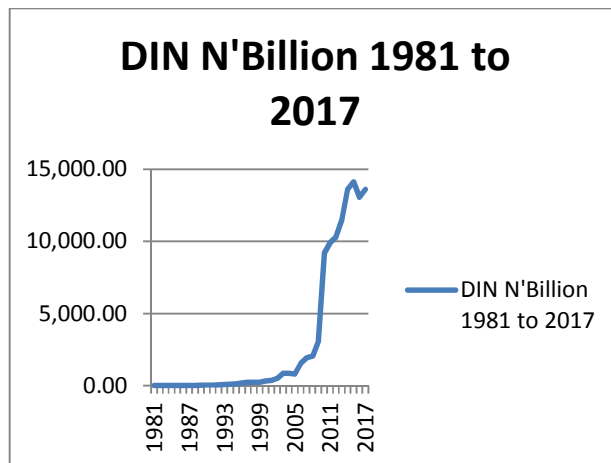


Fig. 4.2. Trends in Domestic Investment (DIN)
 Source: Author's computation using World Bank data

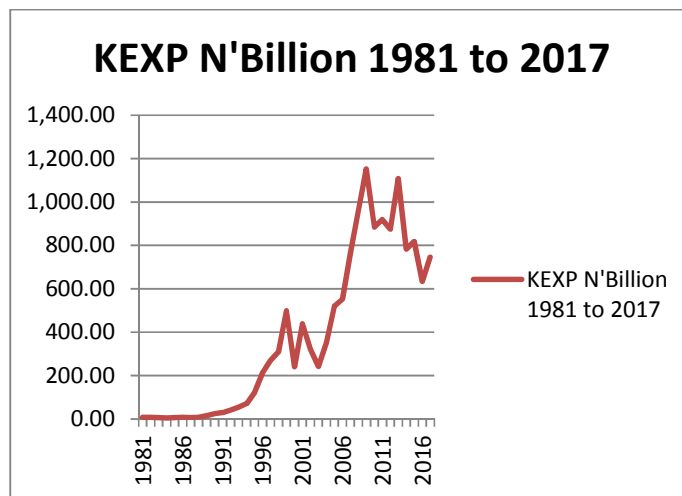


Fig. 4.3. Trends in Capital Expenditure (KEXP)
 Source: Author's computation using World Bank Data

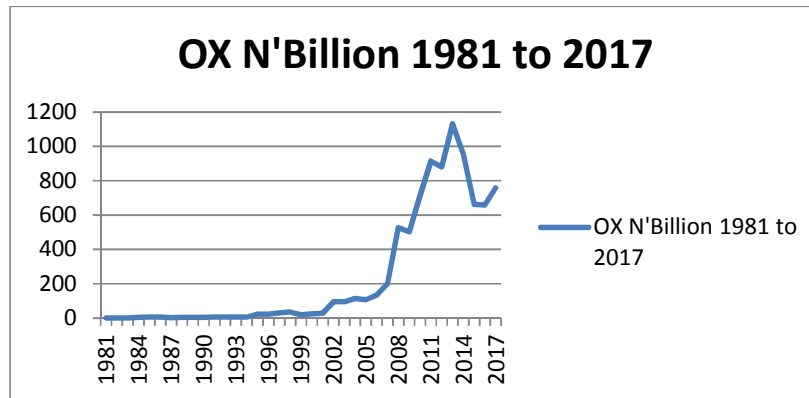


Fig. 4.4. Trends in Oil Exports (OX)

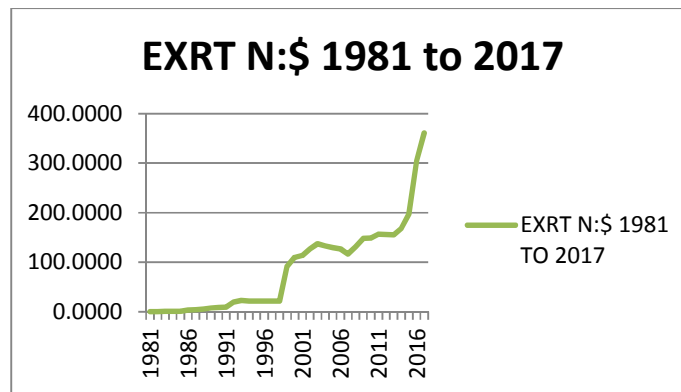


Fig. 4.5. Trends in Exchange Rate (EXRT)
Source: Author's computation using CBN data

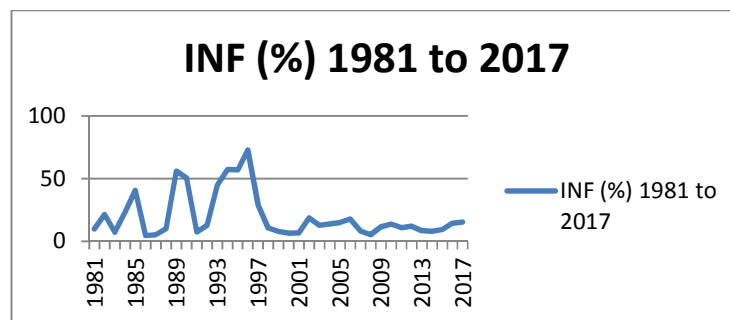


Fig. 4.6. Trends in Inflation Rate (INF)
Source: Author's computation using World Bank data

Inflation rate in Nigeria has exhibited irregular trends over the years as shown in Figs. 4.6. In 1985 inflation stood at 40.7%, declined tremendously to 4.7% in 1986, rose again to 56% in 1989, but declined enormously to 7.5% in 1991. The irregular trend continued and got to its all-time zenith in 1996 recording about 72.6%. In recent years, inflation rate has consistently declined as seen in the trends, with frequently fluctuations.

4.2 Summary Statistics

From the summary statistics, the measures of central tendency: mean, median and mode are computed as well as the measure of spread-standard deviation. The values of the means and standard deviation of each variable are compared to reveal the degree of spread in the data points. The result reveals that RGDP, KEXP and INF have mean values greater than their

respective standard deviations, which indicates a less spread. However, the standard deviations of DIN, OX and EXRT are larger than their respective means. This implies a wider degree of spread for the latter series than the former. Again, the result reveal that all the variables are positively skewed within the range of 0.5816 and 1.5311, while the kurtosis values indicate that DIN, OX, EXRT and INF are not normally distributed since their kurtosis values are at least 3 and implies that the data are peaked, however, RGDP and KEXP have kurtosis values less than 3, this also indicates that the data are flat [17]. An extension to Jarque-Bera statistics as shown by the value of its probability at show that the P-Values are < 0.10 for all other variables except KEXP, as such we reject the null hypothesis that the variables are normally distributed but KEXP. The above statistics help us to conclude that the data are good enough for further analysis in their natural logarithm form. We therefore progress to the pre-estimation analysis by testing for stationarity or otherwise of the data.

The unit root test shows that the variables are integrated of order zero and one. For instance, while LnOX and INF are stationary at levels,

LnRGDP, LnDIN, LnKexp and LnEXRT are stationary at first difference. This therefore indicates that since the variables are integrated of different orders, a Co-integration test is required. However, since the stationarity test justifies the ARDL model, the bounds test approach for long run association is embarked upon.

4.3 Co-integration Test (Bounds Test Approach)

Pesaran [18] recommends bounds for the critical value for the asymptotic distribution of the F-statistic. For various situation (e.g. different numbers of variables, (k+1)), they give lower and upper bound on the critical values. In each case, the lower bound is based on the assumption that all the variables are I(0), and the upper bound is based on the assumption that all the variables are I(1). If the computed F-statistic falls below the lower bound we would conclude that the variables are I(0), so no co-integration is possible, by definition. If the F-statistics exceeds the upper bound, we conclude that we have co-integration. Finally if the test statistic falls between the bounds, the test is inconclusive.

Table 4.1. Summary statistics

	RGDP	DIN	KEXP	OX	EXRT	INF
Mean	33313.81	2948.180	378.3383	233.9489	86.68251	19.98541
Median	22472.94	242.8998	269.6517	28.00000	92.52838	12.70000
Maximum	69023.93	14112.17	1152.796	1130.200	360.9660	72.80000
Minimum	15242.63	8.799480	4.100100	0.200000	0.636900	4.700000
Std. Dev.	18340.17	4887.702	372.3189	347.5131	88.61160	18.00978
Skewness	0.851749	1.423089	0.581649	1.260486	1.084005	1.531115
Kurtosis	2.182752	3.260826	1.961219	3.050491	4.118095	4.099847
Jarque-Bera	5.503439	12.59351	3.749836	9.801684	9.173541	16.32150
Probability	0.063818	0.001842	0.153368	0.007440	0.010186	0.000286
Sum	1232611.	109082.7	13998.52	8656.110	3207.253	739.4600
Sum Sq. Dev.	1.21E+10	8.60E+08	4990369.	4347553.	282672.6	11676.68
Observations	37	37	37	37	37	37

Source: Author's computation using CBN and World Bank Data

Table 4.2. Augmented Dickey Fuller (ADF) unit root result

Variable	Method	At Level			At First Difference			Order
		T-statistics	5% critical value	Prob	T-statistics	5% critical value	Prob	
LnRGDP	ADF	-2.6242	-3.5403	0.2725	-3.9301	-3.5443	0.0211	I ₁
LnDIN	ADF	-0.8186	-3.5403	0.9543	-5.0845	-3.5443	0.0012	I ₁
LnKEXP	ADF	-0.6747	-3.5403	0.9675	-6.2782	-3.5443	0.0000	I ₁
LnOX	ADF	-4.0602	-3.5443	0.0156	-	-	-	I ₀
INF	ADF	-3.8043	-3.5443	0.0282	-	-	-	I ₀
LnEXRT	ADF	-1.5930	-3.5403	0.7760	-5.6204	-3.5443	0.0003	I ₁

Source: Author's computation using data extracted from CBN and WDI (Using eviws 10)

Table 4.3. ARDL bound co-integration test

Estimated Model: $LnRGDP_t = f(LnDIN_t, LnKEXP_t, LnOX_t, LnEXRT_t, INF_t)$		
Optimal Lags: (1, 0, 0, 0, 1, 1)		
F- Statistics: 7.89684*		
Level of significance	Lower bound	Upper bound
10%	2.08	3
5%	2.39	3.38
2.5%	2.7	3.73
1%	3.06	4.15

Source: Author's Computation using CBN and World Bank Data (Eviews10)

Table 4.3 shows that the F-statistics 7.215 is greater than the 1%, 2.5%, 5% and 10% lower and upper bound test and we can therefore conclude that there is a long run equilibrium relationship between economic growth, domestic investment and other determinants of growth as modeled in this study.

4.4 ARDL Estimation of Result

In this section, the study utilizes appropriate software to estimate the parameters of the model and the result is presented in Table 4.4.

4.5 Discussion of Results

The estimation result in Table 4.4 reveals that the estimated ECT coefficient in the short run is -0.12 (ECTt-1 = -0.1262) and significant at 1% level, thus indicating that over 12 percent of the dis-equilibrium due to the previous year's shocks is adjusted back to the long-run equilibrium in the current year. This also indicates that, there is a significant long run relationship among the variables. The coefficient of DIN in the short run model at current period conforms to the expectation of positive relationship but it is not significant at 5%. Again, RGDP at previous period also conforms to theoretical expectation with positive sign and it is significant at 1% level. OX also conforms to a priori expectation with positive sign and it is also statistically significant at 10%. KEXP conforms to theoretical expectation but it is not significant in the short run. EXRT at current period conforms to a priori expectation with negative sign, but in previous period EXRT does not conform to theoretical expectation with positive signs. Both are statistically significant at 10% level. The alternate in signs between the coefficients of the current and previous exchange rate could be adduced to high rate of volatility in exchange rate of Naira. For the coefficients of INF, at current and

previous periods, the former negates the expectation at showing a positive insignificant relationship between INF and RGDP, but the latter is in conformity with theoretical expectation with a negative sign that is significant at 10%. In summary, the short run estimates shows that all the variables are at one point or the other conform to theoretical expectation, while some were significant at one time, others were at another time.

In the long run, Domestic Investment (DIN) has a positive value of 0.0531 but not significant, showing that increase in domestic investment leads to increase in economic activities capable of promoting economic growth. The sized of the impact is as such, for every one percent rise in DIN, RGDP rises by 0.053 percent. This conforms to the a-priori expectation of a positive relationship. Though domestic investment have a positive impact on growth, it has failed to be significant as a result of the fact that domestic savings which translates into capital expenditure are low due to low income and low productivity(vicious circle). Within the same discussion, capital expenditure has a positive impact on economic growth in Nigeria, but it is not statistically significant. For every one percent point increase in KEXP, RGDP increases by 0.046 percent. The reasons for this variable not having a significant impact on growth are due to the fact that a small proportion of the budgetary provision for is for capital expenditure against the large size of recurrent expenditure and the preponderance of corrupt practices in executing capital projects. Oil export (OX) has a positive impact on growth but is statistically insignificant, with a 0.155 percent partial impact for every one percent rise in oil export earnings, while exchange rate (EXRT) indicates a positive effect on growth as rationalized by the J-Curve hypothesis and finally, inflation (INF) is negatively related to economic growth (RGDP).

Table 4.4. ARDL Long and Short Run Result Dependent Variable: RGDP

Long Run Estimates				Short Run Estimates			
Variable	Coefficient	t-stat	Prob	Variable	Coefficient	t-stat	Prob
D(LnDIN) _t	0.0531	0.2740	0.7861	Δ (LnRGDP) _{t-1}	0.8737*	8.9867	0.8194
				Δ (LnDIN) _t	0.0067	0.2305	
D(LnKEXP) _t	0.0463	0.2880	0.7755	Δ (LnKEXP) _t	0.0058	0.3318	0.7426
LnOX _t	0.1557	1.2953	0.2062	Δ (LnOX) _t	0.019**	1.7548	0.0906
D(LnEXRT) _t	0.0085	0.0653	0.9484	Δ (LnEXRT) _t	-0.050**	-1.9648	0.0598
INF _t	-0.0022	-0.5612	0.1065	Δ (LnEXRT) _{t-1}	0.051**	1.9216	0.0653
C	9.5258	26.316	0.0000	Δ (INF) _t	0.0007	1.3559	0.1863
				Δ (INF) _{t-1}	-0.001**	-1.9267	0.0646
Statistical Properties of Results				CointEq _{t-1}	-0.1262*	-7.8569	0.0000
R ²	0.994						
Adj R ²							
F-statistic	0.993						
Prob(F-statistic)	627.83						
Durbin-Watson Stat							
Akaike Info Criterion	0.0000						
Schwarz Criterion	1.777						
	-3.2592						
	-2.8633						

* Implies significant at 10%; ** Implies significant at 5%

Source: Author's Computation using Data extracted from CBN 2016 Statistical Bulletin

The R² of 0.9946 for the model according to Table 4.4 shows overall goodness of fit of the model and that 99% variation in the economic growth can be explained by the changes in the independent variables while the Durbin Watson test figure of 1.777 signifies the absence of serial correlation. The probability value of 0.00000 with F-Statistic value of 627.83 shows that the model employed in the analysis is of good fit.

The overall empirical findings of this study when compared to domestic investment and growth relations, has great lessons for developing countries. For example, [1] reports similar result for Malaysia. The study identified domestic investment, exports and labour as economic growth determinants in Malaysia. The implication of these results for all developing economies is that growth and sustainability are ultimately stimulated through improved domestic investment, export base diversification, labour productivity and other factors which are country specific [see 1,3,4,2].

5. CONCLUSION

This study re-examines the effects of domestic investment on economic growth in Nigeria from 1981 to 2017. The study adapts the models of previous researchers in same field [1,2] by

incorporating other explanatory variables to make the model robust. With adoption of a modern technique of data analysis (ARDL), as favoured by the pre-estimation unit root test depicts as departure for the convention Ordinary Least Square (OLS) technique adopted by previous studies. From the estimated coefficients, the found that in short run and long run, domestic investment has positive effects on economic growth in Nigeria, this finding is an improvement of previous studies' findings, however, it must be noted that DIN accumulation has been slow due to incidence of vicious circle of poverty in the country. The positive but insignificant impact of domestic investment variable on economic growth in the country portrays the fact that domestic investment is necessary for growth but overtime has not been sufficient. The study found that significantly, for domestic investment to champion the propensity of growth required moving Nigeria to developmental paths; it requires complements from both foreign and public sectors in terms of direct investments. Beyond this, obviously, in addition to vicious poverty circle, high rate of inflation which erodes the value of domestic currency has accounted for major capital investment outflow which depletes domestic investment. Within the same discussion, other key variables in addition to domestic investment

which stimulate economic growth include: public capital expenditure, oil export earnings, and exchange rate, while inflation discourages growth.

This study which is significant on the basis of its policy implications to individuals, firms and the government of Nigeria recommends the following:

- The government and other corporate bodies should encourage investment of finances in the domestic economy which has profound ability to drive economic growth in the country rather than investing abroad.
- Oil exports should encourage since it provides the preponderance of funds required to build critical infrastructures that will promote domestic investment. This should be done with incremental efforts on economic diversification.
- The government should allocate more resources to capital expenditure as it provides the foundation on which the growth ambitions of nations are built.
- Anti-Inflationary policies should be formulated and implemented by government so as to discourage capital/financial outflow which could have constitute investment in the economy.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:
The peer review history for this paper can be accessed here:
<http://www.sdiarticle3.com/review-history/47115>