

**DOMESTIC INVESTMENT AND ECONOMIC GROWTH NEXUS: A Re-visit for Nigeria**

**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, we recommend 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.*

**Key Words: Domestic Investment, Economic Growth, ARDL**

**1.0 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, [3] 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, [23] 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, [13]

39 disclose that Investment both private and public comes with a lot of benefits such as job creation,  
40 increase in per-capita income, reduction in the level of poverty, increase in standard of living,  
41 and ultimately leads to output expansion. The study by [15] reveals that the multiplier effect of  
42 domestic investment is greater on economic growth episodes than those of foreign direct  
43 investment. However, unlike other study, they were quick to point out the inherent problem of  
44 instability in the value of domestic investment. Beside instability as identified, domestic  
45 investments (public and private) are grossly inadequate in less developed economies which are  
46 largely responsible for capital gap, infrastructural deficit and inappropriateness, poor human  
47 capital development as reflected in healthcare services and the quality of educational system.  
48 Real Domestic investment could be linked directly with the capital spending on new projects in  
49 the sectors of public utilities and infrastructure such as roads projects, water connections,  
50 creation of urban plans and construction projects like housing and extensions of electricity and  
51 power generation, as well as social development in the areas of security, education, health and  
52 communication projects and tourism. These have tremendous implications for economic growth.  
53 The debate on the roles of domestic investment in economic growth and development is an age  
54 long exercise starting from the classical, neo-classical and the neo-keynesians from the  
55 theoretical angle. However, the recent years, empirical evidence have re-generated a hit debates  
56 among scholars as regards its vitality in economic progress of nations, see [14; 13; 15; 3; & 23].  
57 The quest for the attainment of economic growth and development has prompted the government  
58 to embark on massive reconstruction and public-sector investments. However, records of the past  
59 three decades have generated a lot of concern over the slow pace of industrial and infrastructural  
60 development which is directly determined by the volume of domestic investment. Though  
61 Nigeria has experienced an unprecedented increase in her revenue profile through oil exports,  
62 she has equally enjoyed cycles of an oil boom with successive governments harnessing the  
63 resources of the nation to execute its budget. Ironically, there has been an increase too in her  
64 expenditure pattern overtime. Paradoxically, it does not appear as if the increase in capital  
65 expenditures has translated into the increased capital formation and consequently economic  
66 growth and development. The problem becomes that Nigeria domestic investment as well as  
67 capital accumulation has not been growing and has declined by over 30% between 2000 and  
68 2017 [28]. This is the crux of this study. Furthermore, Nigeria macroeconomic indicators show  
69 the pitiable performance of a Domestic investment for the period 1986 till date [4]. For example,  
70 domestic investment declined from 12.3% of GDP in 1991 to 8.3% of GDP in 1992, this may be  
71 partly due to the reduced public investment, which fell during the same period. Domestic  
72 investment then increased to 12.5% in 1993 and to 16% in 1994. Later, it fell continuously to  
73 8.9% in 1996. Between 2001 and 2010, the ratio averaged 13%; it peaked at 16.2% in 2002 but  
74 fell again to 15.2% in 2010 [4]. The trends have continued to decline till date.

75 While previous studies [14; 13; 15; 3; & 23] employed the Ordinary Least Square approach, this  
76 study proposes the utilization of the Autoregressive Distributed Lag (ARDL) technique so as to  
77 simultaneously estimate unbiased and efficient short run coefficients and the long run dynamics.  
78 These would be the contribution to knowledge by this study.

79 In the face of this problem, this study attempts to investigate the impact of domestic investment  
80 on economic growth in Nigeria with the objectives of ascertaining the trends in domestic  
81 investment, its effects on economic growth and elicit other variables that have significant effects

82 on economic growth in the country. The study is structured into five distinct sections. Section  
83 one contains the introduction of the study. Section two reviews the literature while section three  
84 discusses the theoretical framework and analytical procedures. Section four presents and  
85 analyzes the data. Section five details out the summary, conclusion and recommendations.

86

## 87 **2.0 EMPIRICAL EVIDENCES AND THEORIES**

### 88 **2.1 Review of relevant empirical literature on domestic investment and economic** 89 **growth**

90 A flurry of literature exists on domestic investment and economic growth. Though most of these  
91 studies are done for the developing countries, its applications in developed is not obvious  
92 negligible. This, amongst several studies includes [16; 11; 10; 26; 1; 17; & 25]. The flurry of  
93 literature on the relationship between domestic investment and economic growth in developing  
94 countries is attributed to the fact that developing countries are characterized by attractive but  
95 inconsistent investment policies. This is obvious in Nigeria as we moved from the era of  
96 regulatory control to deregulation and to guided deregulation. These array of empirical studies  
97 agreed that there is equilibrium between the growth proxy and the independent variables  
98 including domestic private investment. Two major events seem to have dimmed the relevance of  
99 the debate carried out in the different studies. The first is the array of estimation techniques and  
100 test procedures available to researchers. The second is the development in the Nigerian economy  
101 vis-à-vis, investment policies in the country. These events are precisely responsible for the  
102 resurgence in interest among researchers. The preceding events have led to the further  
103 consideration of the relationship between domestic private investments and economic by the  
104 authors using the error correction methods. From the literature reviewed, the authors argue that  
105 a slump in general economic activity will compel private investors to postpone their investment  
106 decision giving room for the boosting of foreign investment in the tradable sector while  
107 shrinking the non-tradable sector.

108 A recent perusal of empirical literature review that for Malaysia, [3] investigates the relationship  
109 between domestic investment and economic growth in that country, with the objective of  
110 ascertaining if domestic investment bears significant impact on RGDP. The study analysed  
111 annual data for the periods between 1960 and 2015 using Correlation analysis, Johansen co-  
112 integration analysis of Vector Error Correction Model and the Granger-Causality tests. The study  
113 found that there is a positive effect of domestic investment, exports and labors on economic  
114 growth in the long run, however, there is no relationship between domestic investment and  
115 economic growth in the short run. It is obvious from this study that in addition to domestic  
116 investment, exports and labour constitute major sources of economic growth in Malaysia.

117

118 From the Nigerian perspective, [13] examines the impact of domestic investment on economic  
119 growth in Nigeria using annual time-series data from 1970-2013. Multiple regression and co-  
120 integration methods were employed to analyze the data. The objectives of this study includes: to  
121 examine the impact of private and public investment on economic growth and to analyze the  
122 trends of private investment, public investment and economic growth in Nigeria from 1970-  
123 2013. The study divided government expenditure into productive and protective expenditures,  
124 and found out the crowding in and crowding out impact of government investment on private

125 investment. The result of the analyzed data illustrated that private investment and government  
126 productive investment had positive but insignificant impact on economic growth; while  
127 government protective investment had negative as well as insignificant impact on economic  
128 growth within the period under study. In addition, the study illustrated that government  
129 investment on administration, economic, social and community services crowded in private  
130 domestic investment but only investment on economic services was statistically significant for  
131 the period under study. Based on the results, the recommends that government should improve  
132 on its budget implementation, rationalization and give more priority to expenditures on economic  
133 and social services that make up for private investment, rather than expenditures on national  
134 assembly expenses as well as transfers that replaces private investment. In addition, deposit  
135 money banks should be encouraged to provide more long-term loans to the real sector of the  
136 economy.

137 Furthermore, [15] re-consider the empirical investigation of the link between domestic private  
138 investment and economic growth in Nigeria, using the Cob-Douglas model framework, the study  
139 estimated the model using Error Correction Modeling (ECM) approach with annual data  
140 covering 1970 to 2012. The study shows a significant relationship between domestic investment  
141 and real gross domestic product (RGDP) both in the long-run and short-run. The study thus  
142 recommends that foreign direct investment has a complimentary role to play in driving economic  
143 growth in Nigeria. This result though corroborates the findings of [13], it departs from it by  
144 documenting a short-run significant relationship between domestic investment and growth in  
145 Nigeria which clearly contradicts the report of the former.

146  
147 Within the same discussion, [23] evaluates Nigerian domestic investment and its impact on  
148 Economic Growth. With Objective of ascertaining why domestic investment has remained  
149 stunted over the years, the study modeled economic growth as a function of domestic investment  
150 and government expenditure. By adopting the Co-integration test to determine the long run  
151 relationship between domestic investment and economic growth in Nigeria for the period of  
152 1980-2016. The Granger causality test was utilised to determine the causality between domestic  
153 investment, and economic growth within the same period. The results reveal that a long run  
154 significant relationship exists between the domestic investment and growth. Under the period of  
155 investigation, Domestic Investment Granger cause economic growth in Nigeria and from the  
156 regression result, domestic investment positively influences real gross domestic product. The  
157 study thereby recommends that government should create an enabling environment for domestic  
158 investment to increase through the adoption of macroeconomic policies that will boost  
159 investment opportunities in Nigeria.

## 160 **2.2. THE HARROD-DOMAR GROWTH THEORY**

161 The H-D model is popularly known as the two gap model in development literature. This theory  
162 was postulated by Sir Fredrick Harrods and Evsey Domar who attributed economic growth to  
163 total national savings, capital efficiency (MEC) and depreciation in capital stock. In their earlier  
164 analysis, the model for growth was limited to the closed economy [12].

$$165 \text{ Thus: } Y_g = f(s, k, \delta) \quad (1)$$

$$166 Y_g = \beta(s) - \delta \quad (2)$$

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

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

177 The H-D model with international sector is:

$$178 \quad Y_g = \beta (s + f) - \delta \quad (3)$$

179 Where  $\beta$  .....MEC

$s$  .....savings

180  $f$ .....foreign capital inflow ( $\frac{f}{y}$ )

$\delta$  .....depreciation

181  
182 This theory has become relevant to developing economies after the extension to international  
183 trade which serves as an integral source of foreign exchange inflow for LDCs to compliment  
184 domestic Investment. This theory provides the framework for your model specification.

### 185 **3.0 METHODOLOGY OF THE STUDY**

#### 186 **3.1 DATA SOURCE AND DEFINITION**

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

#### 191 **3.2 METHODS OF DATA ANALYSIS**

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

#### 203 **3.3 MODEL SPECIFICATION**

$$204 \quad \text{RGDP} = f(\text{DIN}, \text{KEXP}, \text{OX}, \text{EXRT}, \text{INF}) \quad (5)$$

$$205 \quad \text{RGDP} = b_0 + b_1 \text{DIN} + b_2 \text{KEXP} + b_3 \text{OX} + b_4 \text{EXRT} + b_5 \text{INF} + u \quad (6)$$

206  $\text{LnRGDP} = b_0 + b_1 \text{LnDIN} + b_2 \text{LnKEXP} + b_3 \text{LnOX} + b_4 \text{LnEXRT} + b_5 \text{INF} + u$  (7)

207  $\text{LnRGDP}_t = b_0 + b_1 \text{LnRGDP}_{t-1} + b_2 \text{LnDIN}_t + b_3 \text{LnKEXP}_t + b_4 \text{LnOX}_t + b_5 \text{LnEXRT}_t + b_6 \text{INF}_t + u$  (8)

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

211  $\text{LnRGDP}_t = b_0 + b_1 \text{LnRGDP}_{t-1} + b_2 \text{LnDIN}_t + b_3 \text{LnKEXP}_t + b_4 \text{LnOX}_t + b_5 \text{LnEXRT}_t + b_6 \text{INF}_t + \text{ect}_{t-1} + e_t$  (9)

212 **A priori expectation**

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

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

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

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

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

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

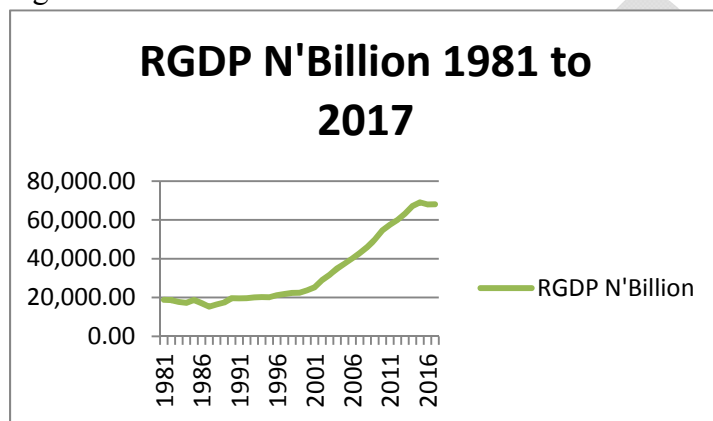
220  $b_6 < 0$ : Inflation is expected to have a negative impact on inclusive growth

221

222 **4.0 RESULTS DISCUSSION**

223 **4.1 Descriptive Analysis**

224 Figure 4.1 Trends in Real Gross Domestic Product (RGDP)

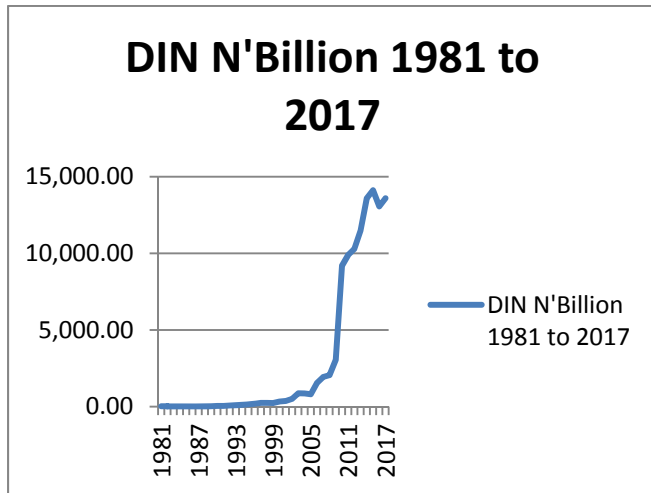


225

226 **Source: Author's computation using CBN data.**

227 Real gross domestic product fluctuated between 1981 and 1990, however, it became stable from  
 228 1991 to 1996 and thereafter maintains a positive trend up to 2015 when the trend reversed due to  
 229 the economic recession recorded as an aftermath of crude oil price fall. Though this trend has  
 230 reversed weakly but not convincingly.

231 Figure 4.2 Trends in Domestic Investment (DIN)



232

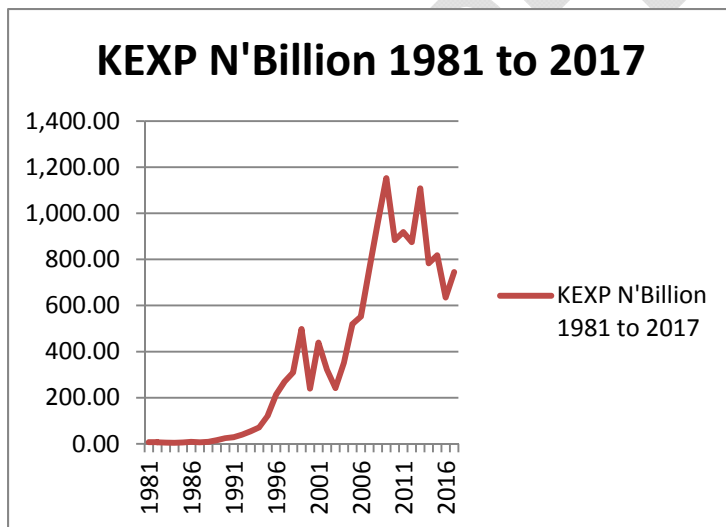
233 Source: Author's computation using World Bank data

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

238

239

240 Figure 4.3 Trends in Capital Expenditure (KEXP)



241

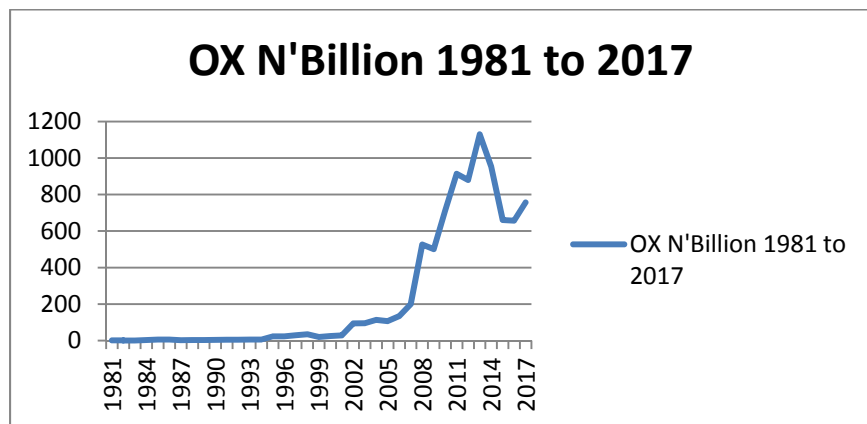
242 Source: Author's computation using World Bank Data

243 Capital expenditure of the Nigerian government has continued to vary with the variation in the  
 244 value of export earnings and crude prices overtime. Periods of oil price stability is usually  
 245 associated with stability in government's capital expenditure as volatility in oil price also makes  
 246 capital expenditure fluctuates in the country. In this vain, from 1981 to 1989 capital expenditure  
 247 was stable in the country, however, from 1990 to 1996 capital expenditure rose tremendously



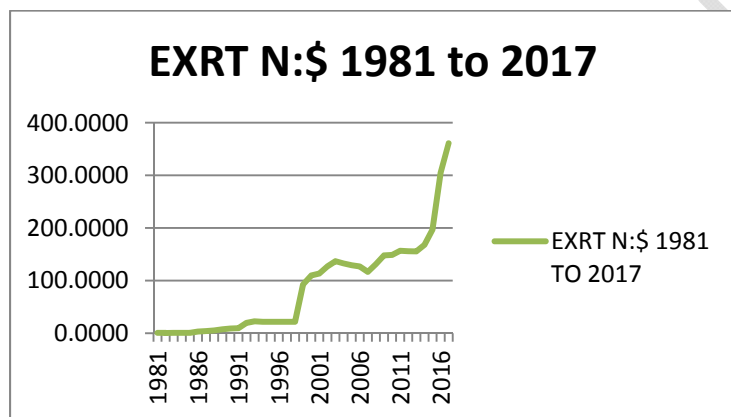
248 reaching its first peak, afterwards, it fluctuated enormously up to 2004 and thereafter started  
249 rising till 2014 when due to economic recession and dwindling revenue inflow capital  
250 expenditure witnessed another stagger till date.

251 Figure 4.4 Trends in Oil Exports (OX)



252

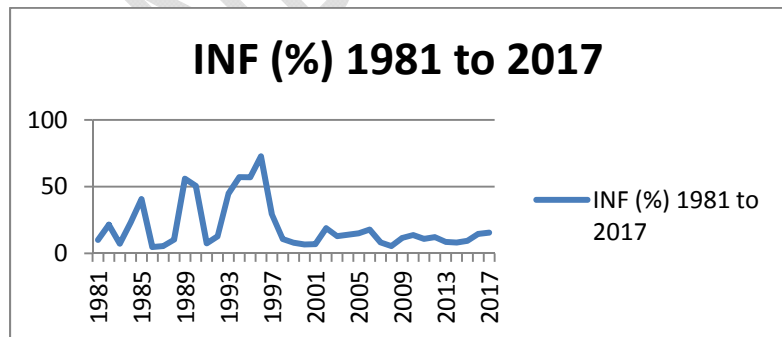
253 Figure 4.5 Trends in Exchange Rate (EXRT)



254

255 Source: Author's computation using CBN data

256 Figure 4.6 Trends in Inflation Rate (INF)



257

258 Source: Author's computation using World Bank data

259 Inflation rate in Nigeria has exhibited irregular trends over the years as shown in figure 4.3. In  
260 1985 inflation stood at 40.7%, declined tremendously to 4.7% in 1986, rose again to 56% in



261 1989, but declined enormously to 7.5% in 1991. The irregular trend continued and got to its all  
 262 time zenith in 1996 recording about 72.6%. In recent years, inflation rate has consistently  
 263 declined as seen in the trends, with frequently fluctuations.

## 264 4.2 Summary Statistics

265 From the summary statistics, the measures of central tendency: mean, median and mode are  
 266 computed as well as the measure of spread-standard deviation. The values of the means and  
 267 standard deviation of each variable are compared to reveal the nature of distribution around the  
 268 mean, and the real reveals that **RGDP**, **KEXP** and **INF** have mean values greater than their  
 269 respective standard deviations, while the standard deviations of **DIN**, **OX** and **EXRT** are larger  
 270 than their respective means. This implies a wider degree of spread for the latter series than the  
 271 former. Again, the result reveal that all the variables are positively skewed within the range of  
 272 0.5816 and 1.5311, while the kurtosis values indicate that **DIN**, **OX**, **EXRT** and **INF** are  
 273 normally distributed since their kurtosis values are at least 3, however, **RGDP** and **KEXP** have  
 274 kurtosis values less than 3. An extension to Jarque-Bera statistics as shown by the value of its  
 275 probability at 10% portrays all the variables to be significant except **KEXP**. The above statistics  
 276 help us to conclude that the data are good enough for further analysis. We therefore progress to  
 277 the pre-estimation analysis by testing for stationarity or otherwise of the data.

278 **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

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

280 **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 <sub>1</sub>
LnDIN	ADF	-0.8186	-3.5403	0.9543	-5.0845	-3.5443	0.0012	I <sub>1</sub>
LnKEXP	ADF	-0.6747	-3.5403	0.9675	-6.2782	-3.5443	0.0000	I <sub>1</sub>
LnOX	ADF	-4.0602	-3.5443	0.0156	-	-	-	I <sub>0</sub>
INF	ADF	-3.8043	-3.5443	0.0282	-	-	-	I <sub>0</sub>
LnEXRT	ADF	-1.5930	-3.5403	0.7760	-5.6204	-3.5443	0.0003	I <sub>1</sub>

281 **Source: Author's computation using data extracted from CBN and WDI (Using evIEWS 10).**  
 282 The unit root test shows that the variables are integrated of order zero and one. For instance,  
 283 while LnOX and INF are stationary at levels, LnRGDP, LnDIN, LnKexp and LnEXRT are  
 284 stationary at first difference. This therefore indicates that since the variables are integrated of  
 285 different orders, a Co-integration test is required. However, since the stationarity test justifies the  
 286 ARDL model, the bounds test approach for long run association is embarked upon.

### 287 **4.3 Co-integration Test (Bounds Test Approach)**

288 **Table 4.3: ARDL Bound Co-Integration Test**

<i>Estimated Model:</i> $LnRGDP_t = f(LnDIN_t, LnKEXP_t, LnOX_t, LnEXRT_t, INF_t)$			289
<i>Optimal Lags:</i> ( 1, 0, 0, 0, 1, 1)			290
<i>F- Statistics:</i> 7.89684*			291
Level of significance	Lower Bound	Upper Bound	292
10%	2.08	3	293
5%	2.39	3.38	294
2.5%	2.7	3.73	295
1%	3.06	4.15	296

297

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

299 [24] recommends bounds for the critical value for the asymptotic distribution of the F-statistic.  
 300 For various situation (e.g. different numbers of variables, (k+1)), they give lower and upper  
 301 bound on the critical values. In each case, the lower bound is based on the assumption that all the  
 302 variables are I(0), and the upper bound is based on the assumption that all the variables are I(1).  
 303 If the computed F-statistic falls below the lower bound we would conclude that the variables are  
 304 I(0), so no co-integration is possible, by definition. If the F-statistics exceeds the upper bound,  
 305 we conclude that we have co-integration. Finally if the test statistic falls between the bounds, the  
 306 test is inconclusive.

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

### 311 **4.4 ARDL Estimation of Result**

312 **Table 4.4: ARDL Long and Short Run Result**  
 313 **Dependent Variable: RGDP**

Long Run Estimates				Short Run Estimates			
Variable	Coefficient	t-stat	Prob	Variable	Coefficient	t-stat	Prob
D(LnDIN) <sub>t</sub>	0.0531	0.2740	0.7861	$\Delta(LnRGDP)_{t-1}$	0.8737*	8.9867	
D(LnKEXP) <sub>t</sub>	0.0463	0.2880	0.7755	$\Delta(LnDIN)_t$	0.0067	0.2305	0.8194
LnOX <sub>t</sub>	0.1557	1.2953	0.2062	$\Delta(LnKEXP)_t$	0.0058	0.3318	0.7426
D(LnEXRT) <sub>t</sub>	0.0085	0.0653	0.9484	$\Delta(LnOX)_t$	0.019**	1.7548	0.0906
INF <sub>t</sub>	-0.0022	-0.5612	0.1065	$\Delta(LnEXRT)_t$	-0.050**	-1.9648	0.0598
C	9.5258	26.316	0.0000	$\Delta(LnEXRT)_{t-1}$	0.051**	1.9216	0.0653
				$\Delta(INF)_t$	0.0007	1.3559	0.1863
				$\Delta(INF)_{t-1}$	-0.001**	-1.9267	0.0646
				CointEq <sub>t-1</sub>	-0.1262*	-7.8569	0.0000
<b>Statistical Properties of Results</b>							
R <sup>2</sup>		0.994					
Adj R <sup>2</sup>		0.993					

F-statistic	627.83
Prob(F-statistic)	0.0000
Durbin-Watson Stat	1.777
Akaike Info Criterion	-3.2592
Schwarz Criterion	-2.8633

314 \* *Implies significant at 10%* \*\* *Implies significant at 5%*

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

316

#### 317 **4.5 DISCUSSION OF RESULTS**

318 The estimation result in **table** 4.4 reveals that the estimated ECT coefficient in the short run is -  
319 0.12 (ECTt-1 = -0.1262) and significant at 1% level, thus indicating that over 12 percent of the  
320 dis-equilibrium due to the previous year's shocks is adjusted back to the long-run equilibrium in  
321 the current year. This also indicates that, there is a significant long run relationship among the  
322 variables. The coefficient of DIN in the short run model at current period conforms to the  
323 expectation of positive relationship but it is not significant at 5%. Again, RGDP at previous  
324 period also conforms to theoretical expectation with positive sign and it is significant at 1%  
325 level. OX also conforms to a priori expectation with positive sign and it is also statistically  
326 significant at 10%. KEXP conforms to theoretical expectation but it is not significant in the short  
327 run. EXRT at current period conforms to a priori expectation with negative sign, but in previous  
328 period EXRT does not conform to theoretical expectation with positive signs. Both are  
329 statistically significant at 10% level. The alternate in signs between the coefficients of the current  
330 and previous exchange rate could be adduced to high rate of volatility in exchange rate of Naira.  
331 For the coefficients of INF, at current and previous periods, the former negates the expectation at  
332 showing a positive insignificant relationship between INF and RGDP, but the latter is in  
333 conformity with theoretical expectation with a negative sign that is significant at 10%. In  
334 summary, the short run estimates shows that all the variables are at one point or the other  
335 conform to theoretical expectation, while some were significant at one time, others were at  
336 another time.

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

353 The  $R^2$  of 0.9946 for the model according to table 4.4 shows overall goodness of fit of the model  
354 and that 99% variation in the economic growth can be explained by the changes in the  
355 independent variables while the Durbin Watson test figure of 1.777 signifies the absence of serial  
356 correlation. The probability value of 0.00000 with F-Statistic value of 627.83 shows that the  
357 model employed in the analysis is of good fit.

## 358 **5.0 CONCLUSION**

359 This study re-examines the effects of domestic investment on economic growth in Nigeria from  
360 1981 to 2017. The study adapts the models of previous researchers in same field [3; 23] by  
361 incorporating other explanatory variables to make the model robust. With adoption of a modern  
362 technique of data analysis (ARDL), as favoured by the pre-estimation unit root test depicts as  
363 departure for the convention Ordinary Least Square (OLS) technique adopted by previous  
364 studies. From the estimated coefficients, the found that in short run and long run, domestic  
365 investment has positive effects on economic growth in Nigeria, this finding is an improvement of  
366 previous studies' findings, however, it must be noted that DIN accumulation has been slow due  
367 to incidence of vicious circle of poverty in the country. The positive but insignificant impact of  
368 domestic investment variable on economic growth in the country portrays the fact that domestic  
369 investment is necessary for growth but overtime has not been sufficient. The study found that  
370 significantly, for domestic investment to champion the propensity of growth required moving  
371 Nigeria to developmental paths; it requires complements from both foreign and public sectors in  
372 terms of direct investments. Beyond this, obviously, in addition to vicious poverty circle, high  
373 rate of inflation which erodes the value of domestic currency has accounted for major capital  
374 investment outflow which depletes domestic investment. Within the same discussion, other key  
375 variables in addition to domestic investment which stimulate economic growth include: public  
376 capital expenditure, oil export earnings, and exchange rate, while inflation discourages growth.  
377 This study which is significant on the basis of its policy implications to individuals, firms and the  
378 government of Nigeria recommends the following:

- 379 • All Nigerians should imbibe the savings culture which will help accumulate domestic  
380 savings which translates into domestic investment.
- 381 • Due to the insignificant but positive effect of domestic investment for the period  
382 investigated, the study recommends a compulsory national savings which will help  
383 promote domestic investment in the country and therefore stimulate economic growth.
- 384 • To attain higher growth of the economy, accumulated domestic investment should be  
385 complemented with improved capital expenditure directed at boosting the development of  
386 other sectors of the economy.
- 387 • Government should diversify into the non-oil sector as the oil sector alone cannot yield  
388 the desired growth and development that Nigerians are yearning for.
- 389 • Anti-Inflationary policies should be formulated and implemented by government so as to  
390 discourage capital/financial outflow which could have constitute investment in the  
391 economy.

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