Foreign Direct Investment, External Debt and Economic Growth Nexus: Evidence from Nigeria

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DOI 10.56201/ijebm.v9.no4.2023.pg97.112

Abstract
The purpose of this research is to ascertain if inflow of FDI and external debt has significantly impacted the growth of the Nigerian economy from (1980-2017) using the ARDL-ECM framework. Data was extracted from the CBN Statistical Bulletin and WDI dataset of the World Bank. Results from the ARDL estimation output shows that foreign direct investment and external debt possessed a positive and significant effect on economic growth in Nigeria only in the short-run. On the other hand, results from the ARDL Bounds Test depicts an absence of a long-run relationship between foreign direct investment, external debt and economic growth in the case of Nigeria. The study recommended that borrowed funds acquired to finance capital and developmental projects should be properly channelled towards the actualisation and full implementation of such projects.

1.0 Introduction

The need for less-developed economies and developing economies to attain economic prosperity reinforces the need for foreign assistance, i.e., loans, aid, and investments to boost economic activities. The spectacle of foreign inflows assists the economy in the creation of employment opportunities, technology transfers, infrastructural upgrade, and revenue for the host government. In its book entitled International Business ; A Managerial Perspective, Griffin & Pustay (2002) described FDI as acquiring foreign assets to control them or technically as ownership or ownership of 10% or more of a company's equity or equivalent interest in a non-corporated company. Forms of FDI include the aquisition of viable assets in a foreign country, fresh investment in land, factories & machineries and engagement in a joint venture with an indigenous company, the presence of multinational companies is more noticeable in the Nigerian business setting. External debt stocks are due to the Nigerian government's inability to finance annual budgets independently and from internal sources due to severe shocks in commodity prices characterized by excessive dependence on crude oil as the main source of foreign exchange.

Historically, the first significant external borrowing occurred in the pre-independence era, where the loan of $28million was disbursed to Nigeria by the World Bank to finance railway construction (Ndubuisi, 2017). The discovery of crude oil and its immediate exploration saw Nigeria neglect the agricultural sector responsible for its bright economic performance in the 50s and 60s. The economy of Nigeria was exposed to the effects of Dutch disease when commodity prices crashed in the late 70s. The immediate cause includes; low savings, the outrageous cost of governance, gross misconduct, financial misappropriation, corruption, looting of the state treasury, and porous nature of the Nigerian economy.

The first significant debt acquired from the International Capital Market in 1978 was worth $ 1billion popularly termed as the jumbo loan (Ndubuisi, 2017 & Adegbite, et al. 2008). Nigeria's economic literature showed that external borrowing was rampant in the 1980s to offset the hiatus caused by a massive fall in oil prices. External borrowing should only be procured for productive activities or wealth-creating vehicles rather than wasteful and illogical socio-political reasons (Sulaiman & Azeez, 2012). A practical example lending credence to the stance of Sulaiman & Azeez (2012) is the indebtedness of Nigeria to the Paris Club of Creditors to an estimated amount of $30billion. The quest of ascertaining the most efficient means of financing development in developing economies and less developed economies has continuously sparked debate on the pros and cons of various alternatives. External debt servicing vis-à-vis debt-to-GDP ratio does not give the red warning light as government through the Debt Management Office, the DMO claims that Nigeria is robust enough to pay interest routinely and citizens should ignore predictions by economists and pundits in the local and international media. Recently, direct acquisition of external loans by the federal government from China and the International Capital Market to finance the 2016 and 2017 Budget with the issuance of US$1.5 billion 15-year Eurobonds, US$300 million 5-year Diaspora Bond and dual-tranche US$3 billion Eurobonds for tenors of 10 years and 30 years (DMO Annual Report, 2017).

The triumphant entry of FDI into developing economies in Africa is as a result of the decrease in overseas development assistance (ODAs) between the late 90s and early 2000 compelling them to result to alternative and sustainable sources of financing (Egbo, 2010). Nations domiciled in Sub-Saharan Africa prioritise the attraction of foreign direct investment due to its perceived benefits on economic growth and development. Empirical evidence arising from previous investigations on FDI and growth attest that the relationship between FDI and growth is country and period-specific (Asiedu, 2001 as cited in Olusanya, 2013). It is visibly obvious that FDI flows into Nigeria has been concentrated in the crude oil sector of the economy housing various multinational firms, is the major source driving the economy forward, in consensus with (Egbo, 2010 & Olusanya, 2013). The implication is that the attractiveness index of the country to foreign investors fluctuates ferociously with oil price. In 2014, oil price achieved its most elevated pinnacle, and around the same time, Nigeria experienced its most noteworthy FDI inflow of the decade at generally $2.7bn. At the point when oil cost dropped, FDI streams into Nigeria decreased definitely, as the 2017 figure of $ 981million reflects decisively. Flows to developing economies shrank from $752 billion in 2015 to $646 billion in 2016, while flows from developing countries stay virtually unchanged from $389 billion in 2015 to $383 billion in 2016 (UNCTAD, 2017).

Over time, increased cost of production due to the infrastructural deficit in terms of energy spikes the final cost per unit of products making it expensive for locals who may not afford them due to low per-capita income influenced by high unemployment, income inequality and literacy levels. The highly volatile nature of national security characterized by incessant clashes between Fulani herdsmen and indigenous farmers, leading to scores of death and destroyed properties, incessant kidnappings by bandits, thereby, crippling the economy of strategic towns in Northern Nigeria. The Boko haram sect's terrorist activities are mainly responsible for Nigeria's spot in the top 3 countries on the world terrorism list. Apart from the transition from boom to bust cycles in recent years; political instability, infrastructural deficit, ease of doing business, regulatory framework, high crime rate and terrorism has been

responsible for the dip in the influx of FDI vis-à-vis exit of top firms to other parts of Africa conducive for firms' production and operations.

According to the statistics culled from the National Bureau of Statistics data portal, investors prefer foreign portfolio investments to FDIs taking advantage of favourable interest rates to harness capital gains. Investors exit when interest rate, political and business conditions deteriorate, which is generally termed "hot money" and has multiplier effects as they are short-term investments. Akanegbu & Chizea (2017) posited that Nigeria has failed to attract huge number of foreign investors tantamount to its economic potentials despite its vast resource base. From the 1970s to the present, FDI and external debt was used collectively by successive governments as an alternative source of funding for economic development. More lately, the influx of FDI across industries including telecommunications, agriculture, utilities, banking and production is appreciating (World Investment Report, 2018). Nigeria is pegged at 169th spot on the ease of doing business index rankings of the World Bank in 2016.

Continuous mix of direct foreign investment and external debt by successive Nigerian governments in financing development has not blossomed into an economic advantage beyond the sphere of economic discourse in academic and political circles as well as growth statistics published by Bureau of Statistics in Nigeria mostly from 2009 till date. Soludo (2003) stated in Sulaiman & Azeez (2012) that nations obtain foreign loans for two comprehensive classifications; firstly, to finance more significant investment or higher consumption and secondly, to finance the budget deficit and supplementary budgets. Adegbite et al. (2008) opined that the dual gap theory is the perfect justification for prioritizing external financing over domestic financing in funding for sustainable development. Studies on external debt showed that financial pressure affiliated with debt servicing harms the growth of the Nigerian economy. The focal point of debt overhang theory buttresses the adjoining consequences of utilizing debt in financing sustainable growth in alignment with (Ajayi & Oke, 2012 & Kudaisi, 2015).

Recession is defined in economic terminology as negative economic growth for two consecutive quarters. In 2016, when the recession hit the Nigerian economy, prompted by the cold war between Russia and the United States of America, and resulting in a drop in the worldwide oil price causing numerous and negative shocks to the federal government's income base. The National Bureau of Statistics opined that output of crude oil barrels per day dropped from 2.11million BPD to 1.69million BPD at the end of 2016. The price per barrel of crude oil has been the benchmark for yearly budgets and fluctuations in commodity prices always hamper full implementation of the budget, mostly leading to delay in achieving set budget goals and objectives. The Federal Government under the administration of President Muhammadu Buhari and Prof. Yemi Osinbajo through the Debt Management Office sought for external loans significantly from the international capital market (Eurobonds and Diaspora bonds) and the Chinese government to finance infrastructural projects. Shockingly, in 2017, the Executive submitted a request to the Senate for immediate approval of a loan request to the tune of $5.5 billion; 45% was allocated to finance the 2017 Budget, and 55% was allocated to re-finance domestic debts (Daily Trust, 2017). The above figures reinforce claims in political and academic circles that debts are acquired to settle recurrent expenditure and not invested in self-liquidating projects. Not forgetting that external debts expose them to exchange rate fluctuation risks and imminent devaluation of the country's currency will spell doom for debt servicing and principal debt repayments.

Overtime, FDI and external debts have been utilized as financing alternatives for economic development and also to stimulate the economy to recover from adverse shocks resulting from commodity bust. The effects of these financing alternatives can only be seen in the published growth rates of the GDP largely pushed by consumer items but practically the real growth is yet to be attained evidenced by high unemployment, double digits rate of inflation, low per-capita income and high poverty rate (Kudaisi & Idharhi, 2015).

The stance of Oladapo, et al. (2015) and Kudaisi (2015) highlighted that FDI and external debts and their resultant effects stimulate growth by increasing the rate of capital formation needed to bridge the gap between desired investments and internal resources available. Kudaisi (2015) posited that despite the use of external debt and FDI as financing alternatives by successive Nigerian governments, economic and social problems persists, thereby necessitating empirical investigation to ascertain if there are improvements in findings by previous empirical studies. There is still a lacuna in the FDI, debt and growth debate in Nigeria, particularly in the post-recession period, this study seeks to ascertain if inflow of FDI and external debt significantly impacted the growth of the Nigerian economy from (1980-2017), so therefore, this research takes measures to fill the gap observed from scanning the body of literature.

This research covered the period of 1980-2017. The range in the study period is due to the historical development of FDI and external debt in Nigerian economic landscape characterized by critical scenarios and events in the late 70s and 80s, critical to building literature and recognizing the trend of the two financing alternatives across the military regimes and democratic dispensations. This exciting addition considered to be advantageous in the selection of this period solely based on the increase in external debts incurred and the influx of FDI characterized by boom and bust cycles in the former and present democratic dispensations. This research is instrumental in capturing this phase in Nigeria's economic history.

2.0 Literature Review

2.1 Preamble

Nigeria's latest ranking and place on the world's poorest countries list is a reiteration of Nigeria's World Bank ranking as one of the world's poorest low-income and highly indebted nations since 1992 (Kudaisi & Idharhi, 2015). With declining FDI owing to stringent factors in the Nigerian business environment and the inability of procured external loans to amount into wealth-creating ventures sufficient enough to liquidate principal amounts and accruing interests reflects in the low standard of living of Nigerian citizens evidenced by low per-capita income estimates. The declining rate of FDI inflow is as a result of harsh macroeconomic conditions, infrastructural deficit, insecurity, uncertainty, political instability and double-taxation. Investors have resorted to foreign portfolio investment to make maximum gains from interest rate differentials evidenced by FPI figures culled from NBS statistics database affects the exchange rate during events that are termed unfavourable to foreign investors. Presidential elections and significant policy announcements over time have influenced the psychology of investors; thereby leading to significant capital outflow from the stock market.

As of December 31, 2017, external debt as a percentage of Total Public Debt increased from

17% in 2015 and 20% in 2016 to 27% (DMO Annual Report, 2017). The above figures reiterate the fact that more external loans are procured by the federal government in the last three years to finance budget deficits, stimulate the economy and capital expenditure items. Experts believe that sole reliance on crude oil may expose Nigeria to price shocks that will continue to hamper the implementation of yearly budgets and further destabilize the Nigerian economy. Therefore, conceptual analysis, review of appropriate theories and empirical literature on the subject is the focus in this section in order to determine its significance to the scenario in Nigeria.

2.2 Theoretical Review

The continued debate among academics on the topic; FDI, external debt and growth has countless theoretical contributions. These theories form a foundation to interpret this research and also serve as a platform for thorough theoretical framework. The selected theories under this section include; dependency theory of underdevelopment, Dual-gap theory, classical liberal theory, and eclectic theory.

Dual-gap Theory

The dual gap theory posits that size of domestic savings in the treasury of developing economies is not elaborate to undertake various variants of investments required to guarantee sustainable growth. Adegbite et al. (2008) argued that the stance of the dual-gap theory provides sufficient reason for utilizing external financing for developmental purposes rather than using domestic borrowing sources only. Thus external borrowing is the tool for bridging the gap created by insufficient domestic savings. Econometrically, the dual gap theory expresses economic growth as a function of investment, and sufficient domestic savings is a pre-requisite for executing investments in emerging economies. The dual-gap theory originates from an accounting function, stating that excess investment is equivalent to the excess of imports over exports. Hence, evidenced by (I – S = M – E). Kudaisi & Idharhi (2015) added that a savings-investment gap is said to occur when domestic savings fall below the level needed to attain the target growth rate. Likewise, if the maximum import requirement expected to attain the trajectory of growth rate is higher than the maximum export level feasible, then the exchange gap has an export-import origin.

Dependency Theory

The theory emanated from the writings of early economists from Latin America whose translations from Latin to English appeared in the mid-1960s and early 1970s. The proponents of this school are Frank Gunder, Sunkel, Furtado, Sanlos, Paul Baran, Emmanuel, and Amin, according to the Indian writer Jhingan. These cerebral scholars have contributed enormously in varying capacities to the dependency theory. The rationale of the dependency theory assumes that mineral, human, financial and cultural resources was transferred from third world countries to world super powers, thus upgrading the financial muscle of the latter, and adverse deprivation of the former. Todaro (2003) as cited in Ndubuisi (2017) posited that the spectacle and standout of the dependency theory are that less-developed nations are in perfect financial misery and quagmire while rich countries benefit tremendously through the manner emerging countries are immersed into the global economic order.

Dependency theory argues that the cause of poverty in countries in the “periphery” is not a function of their level of inclusion into the world order, but rather the manner of immersion of countries in the periphery into the system. Bourgeoisie scholars posits that the reason for the underdevelopment of third-world countries and dependency of third-world countries on

super powers emanates from internal instability. Ndubuisi (2017) reaffirmed that the underdevelopment of third-world nations are internally influenced instead of external influence. This school of thought advocates that the solution to the menace lies in supply of foreign assistance with variants ranging from aids, loans and investment, more importantly, allow uninterrupted operations of multinational firms. The over-reliance of third world countries on the Western world for technology and various forms of foreign assistance. Thus, exposing poor nations to unnecessary and unjustified exploitation by highly developed nations and institutions of Bretton Woods (Ajayi, 2000).

Eclectic Theory

Professor Dunning's eclectic theory is an ideal blend of three distinct sub-theories of foreign direct investment: ownership advantage, location, and internalization.

In the realm of the eclectic theory, Kudaisi & Idharhi (2015) advocated that for firms to enjoy ownership advantage, firms must possess unique intangible assets that are transferable across national borders especially within its foreign subsidiaries, capable of resulting to higher profits or cost-efficiency. To gain triumphant entrance into a foreign market, a firm must possess unique features that would give an edge over the cost of operating in a foreign market. Dunning (1988), as cited in Kudaisi & Idharhi (2015) reiterated that the monopoly firms wield over its unique characteristics, guarantees higher marginal profitability or lower marginal cost in comparison with industry rivals. Unique characteristics include; monopoly advantages, technology, and economies of large scale.

Multinational firms are aware that locational advantages are vital, in deciding the choice country to site the activities of their multinational enterprise. Locational advantages are categorized into three different sub-categories, namely; political advantages, socio-cultural advantages, and economic advantages.

The Internalisation advantage of the eclectic theory offers multinational firms opportunities and methods to assess and decide the nature of agreements to be signed with indigenous companies about their goods and services. If after assessment, benefits are in high proportions, multinational firms may abandon or jettison franchising and its variants and entirely focus on foreign production.

Classical liberal Theory

In the realm of the classical liberal theory, classical economists interpret economic development as economic growth and capital formation. Classicists argue that capital formation aids economic growth and development through investment in infrastructural projects assisted by foreign investments or foreign loans.

Adegbite, et al. (2008) opined that there are two significant ways of determining growth; the first is the dynamic model of competition, which holds that growth stems from technologies produced through the platform of competition. The second is the neoclassical model, which claims that growth results from an expansion of the investment scale (Solow, 1956). Neoclassical economists advocated that policies drafted should be aimed at increasing savings and investment. Less developed economies and developing economies should imbibe a savings culture in order to fund large-scale investments because astronomical ascendance of savings and investment can cause economic growth (Adegbite, et al. 2008). Furthermore, the standpoint of Sachs (2002) posits that the increase in capital stock is a major determinant for growth.

2.3 Empirical Review

The empirical evidence on external debt, foreign direct investment, and economic growth nexus is indeed vast and is still open to further investigation owing to inconsistencies in empirical findings of different academic scholars. Empirical studies on the nexus between FDI, external debt and growth in Nigeria and other developing countries is outlined below:

Evidence from Nigeria

Akanegbu & Chizea (2017) examined the relationship between foreign direct investment and economic growth in Nigeria. Utilizing ordinary least square technique of regression analysis, findings reveal that FDI-growth linkage is positive. It was further revealed that Nigeria placed a higher preference on foreign aid than FDI by virtue of a paucity of policies aimed at attracting FDI inflows into Nigeria. Study recommendations suggested that government policies should be developed and enforced to attract foreign investors, thereby stimulating growth.

Adegbite, et al. (2008) examined the impact of external debt and debt-servicing requirements on economic growth in Nigeria. The paper utilized OLS & GLS to investigate the linear and non-linear effects of debt on growth and investment from 1975-2005 sourcing data from numerous issues of the CBN Statistical Bulletin. Findings reveal external debt and external debt servicing adversely impacted the Nigerian economy. The study recommended that external finance should be sought solely for extremely important projects and more specifically in viable and self-liquidating projects.

Adeniran, et al. (2016) investigated the impact of external debt servicing on Nigeria's economic growth as well as the direction of causality between external debt and growth. The paper utilised econometric techniques to analyse data from 1980-2014. Findings reveal bloated size of external debt service payments necessitates a reduction in the real GDP per capita growth in Nigeria. The study recommended that the use of external debt by government to induce growth should be discouraged due to its retarding influence on growth.

Egbo, et al. (2011) investigated the causal relationship between foreign direct investment and economic growth in Nigeria. The study utilised OLS, ADF and granger causality test to establish causal relationship between variables selected. FDI granger cause GDP consummating unidirectional causation. Conclusively, estimation results suggests a positive relationship between FDI and GDP. Kudaisi (2015) investigated the effect of external debt and FDI on Nigeria's economy from 1980-2014. The ARDL model investigated the existence of short-run and long-run relationship between variables. Findings reveal that FDI and external debt have a positive and statistically significant effect on economic growth in Nigeria. The study recommended that borrowed funds acquired to finance capital and developmental projects should be properly channelled towards the actualisation and full implementation of such projects. Furthermore, debt monies should be monitored to avoid diversion into private accounts of individuals.

Kudaisi & Idharhi (2015) investigated the consequential effect of Nigeria's external debt level and the size of the inflow of FDI on its economy from 1970-2013. After analysis of data extracted, foreign direct investment and external debt had a positively signed coefficient and they contributed positively to the growth of the Nigerian economy.

Ijirshar, et al. (2016) examined the relationship between external debt and economic growth in Nigeria from 1981-2014. The regression results showed a significant relationship between external debt and economic growth in Nigeria. External debt service had a long-run and short-run negative impact on the Nigerian economy. The study recommended that federal

government through the Debt Management Office will provide an efficient managerial framework for funds borrowed to prevent exceeding healthy thresholds. Government should acquire superior technology for local manufacturers in their individual production processes to beef up exports earnings.

Ndubuisi (2017) investigated the impact of external debt on economic growth in Nigeria from 1985-2015 using exchange rate and external reserve as control variables. ECM results suggested that there is no long-run relationship between external debt service and GDP. OLS results suggest that debt service payment is negatively related with GDP. On the other hand, external debt is positively related with GDP, and the ECM result detected a long-run relationship between external debt and GDP. The author recommended that diversification of the economy and sources of revenue for the government will reduce the need for external borrowing to fund key capital projects.

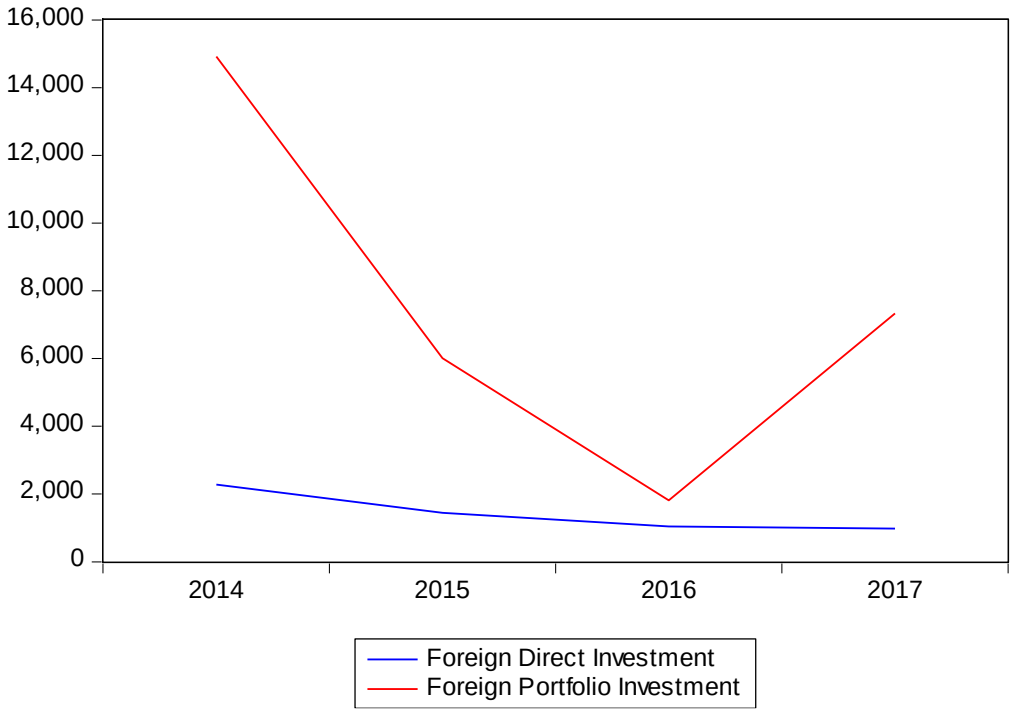
Oladapo, et al. (2015) investigated which inflow is more significant on growth between external debt and FDI in Nigeria through an error correction modelling approach. The author retrieved annual data from the publications of the CBN (1990-2013). Findings reveal external debt has an insignificant but negative impact on economic growth while FDI has a significant but negative impact on economic growth. Conclusively, FDI inflows have more impact on the Nigerian economy as opposed to external debt inflows.

Otto & Ukpere (2014) investigated the relationship between foreign direct investment and economic growth in Nigeria from 1970-2010. Results emanating from the estimation of the model suggests that FDI and exchange rate positively impact on the real GDP in Nigeria.

Sulaiman & Azeez (2012) examined the effect of external debt on the economic growth of Nigeria from 1970-2010. The model was analysed using econometric techniques and the results from the co-integration test establishes long-run relationship among the variables in the model. The noteworthy recommendation to government through effective policy drafting and implementation to preserve political and economic stability.

2.5 A Review of FDI Outlook in Nigeria

Figure 2.0: A graph showing Foreign Direct Investment and Foreign Portfolio investment from 2014-2017.



Source: National Bureau of Statistics Data Portal.

The continuous divide among the two most common forms of foreign investment in Nigeria remains the debate of the most acceptable and suitable for the Nigerian economy between the Foreign Direct Investment and Foreign portfolio investment. The underlying story behind the graphical representation above is not far-fetched. In the year 2014, there were significant controversies in the polity ranging from the emergence of the terrorist sect "Boko Haram," activities of the Niger Delta militants, corrupt practices in NNPC, indecisions in the Nigerian business environment. Investors react to uprisings in the nation's polity prompting the preference of FPIs over FDI solely due to the attractive interest rate for capital gains. On the other hand, the short- term maturity and speculative characteristic of the foreign portfolio investment component have been condemned in literature by top economists and financial analysts across the federation on the adverse impact on economic growth. In 2015, the famous presidential elections between the two biggest political parties in the country. The major news prompted investors to repatriate funds back to home economies or other safe-haven due to uncertainty in policies from the new government. Investors believe that as well as calls of secession from certain quarters that may endanger their portfolio of investments in Nigeria.

Other numerous factors or scenarios prevalent in 2016 and 2017 include penalties and fines for foreign establishments, tight hold on FX, infrastructural deficit, and banditry along Kaduna-Abuja expressway and in parts of Zamfara Sate in Northern Nigeria, the kidnapping of expatriates, nefarious and unjustified killings, kidnappings of school girls, soldiers, Islamic clerics, traditional leaders, and members of staff of UNIMAID perpetrated by members of the Boko Haram sect and the bombings of oil installations in the South-South geo-political zone by the members of the Movement of the Emancipation of Niger-Delta and Niger Delta Avengers.

Sun Newspapers in their publication on 30th May 2017, titled We are wooing back companies that left Nigeria-FG; raised valuable insights into multi-divestment of multinational companies outlined below;

In August, 2016, twenty (20) shipping firms left Nigeria due to poor government policies and effects from the global economic crunch, leaving 3,000 workers out of paid employment. ExxonMobil, Pan Ocean, Saipem Ground Petroleum and Hercules Offshore Nigeria Limited, all left Nigeria in October 2016, resulting in 3,000 workers losing their jobs.

Notable mentions of exited Nigerians outlined below;

Erisco Foods Limited, with over 2,000 workers, relocated its 150 million USD tomato paste processing plant to China due to its regrettable loss of over 3.5billion naira in Nigeria. Thorough evidence available to MAN summarises the inability of manufacturers to access foreign exchange. The failure to obtain FX to acquire critical raw materials had affected the volume of industrial production and increased inflation figure.

3.0 Methodology

The purpose of this study is to investigate the extent to which FDI and external debt influences the growth of the Nigerian economy. In this section, the researcher is virtually interested in presenting the study variables, research design, estimation techniques, economic a-priori criteria, the model for estimation and the limitations of chosen statistical and econometric methods in alignment with credible theoretical and empirical evidence.

3.1 Nature And Sources Of Data

Various sources of secondary data including published journal articles, facts book, statistical bulletins was utilised for this study. Annual time series data for the annual growth rate of the gross domestic product, external debt stock and total net inflows for FDI, extracted for the period 1980-2017. The reason justifying the choice of study period is due to the recession that took the Nigerian economy by storm in 2016 and also capturing the projected recovery as pronounced by the National Bureau of Statistics, Debt Management Office and the Office of the Presidency in 2017. In order to investigate if FDI and external debt impacted on the growth of the Nigerian economy positively necessitates data extraction from the publications of the Central Bank of Nigeria, UNCTAD and the World Development indicators (WDI) dataset of the World Bank. Hence, selected study period produces 37 pairs of observations.

3.2 Model Specification

In this study, the model selected is the debt-investment growth model as employed in (Oladapo, 2015 & Kudaisi & Idharhi, 2015).

The functional expression of the model is specified thus:

$GDPgr = F(FDII, EXD, INF)$ ---------- (1)

Where:

GDPgr is the growth rate of the gross domestic product , a good proxy of economic growth. FDII represents foreign direct investment inflows into the country within the period under investigation. EXD represents the total amount in foreign currency borrowed from multilateral, bilateral and commercial sources. INF represent inflation measured in percentage.

The econometric expression of the model is specified thus;

$GDPgr = \beta 0 + \beta 1\ FDII + \beta 2\ EXD + \beta 3\ INF + \mu$ ---------- (2)

Where $\beta 0$ = value of intercept; $\beta 1$, $\beta 2$ = estimated coefficients of the independent variables; μ= white noise.

3.2.1 Economic a-priori criteria

Table 3.1. Table showing the a-priori expectations of explanatory variables.

Variables	Expectations
EXD	**(+)**
FDII	**(+)**
INF	**(-)**

Source: Authors Computation

3.3 Estimation Procedure And Techniques

This study is built on a quantitative research methodology and relevant existing studies on the topic of interest. In a bid to test hypotheses raised during the course of this study, some econometric methods was utilized to obtain numerical estimates of variables for interpretation of results from estimated outputs extracted from the econometric software (E-views version 10).

The study adopted the co-integration analysis technique to estimate data gathered from 1980-2017. This technique is highly relevant due to its emphasis on long-run relationship between variables of interest. The Unit root test, ARDL Bounds Test analysis and Error correction model are the selected econometric methods for estimation of the econometric model in line with (Kudaisi & Idharhi, 2015). Procedures for estimation vis-à-vis estimation technique will be addressed in no particular order;

4.0 Data Analysis and Interpretation

Table 4.1 Unit root tests (Augmented Dickey Fuller Test)

Variables	Level		First Difference		Remark
	ADF statistic	Mackinnon critical value(5%)	ADF statistic	Mackinnon critical value (5%)	
loggdpgr	-4.104564	-2.945842			I(0)
logfdii	-1.648891	-2.945842	-7.584571*	-2.945842	I(1)
logexd	-2.236801	-2.945842	-4.015542*	-2.945842	I(1)
loginf	-2.948052	-2.943427			I(0)

Source: Authors computation based on estimation output from E-views 10.
Note: * represents ADF statistic significant at 1%, 5% and 10%.

Results contained in Table 4.1 provide statistical evidence to conclude that logfdii and logexd are stationary after first difference except loginf and loggdpgr which are stationary at level. From the computation above, logfdii and logexd are not stationary at level indicating the presence of unit root. However, after further econometric inquiry, logfdii and logexd are stationary after first difference.

Table 4.2: Selection Criteria for Lag Count.

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1117.216	NA	1.33e+22	62.28977	62.46571	62.35118
1	-1053.422	109.8670*	9.38e+20*	59.63456*	60.51429*	59.94161*
2	-1037.458	23.94662	9.74e+20	59.63654	61.22006	60.18923

Source: Econometric view software version 10.

Majority of the information criterion except the LogL information criterion selects lag one (*) as the preferred lag length for this model.

Table 4.3: ARDL Bounds Test's estimation output.

Model	Lags	F-statistic	I(0)		I(1)		Decision
			5%	10%	5%	10%	
F_G(Ingdpgr/Infdii ,Inexd, Ininf)	1	2.01234	2.79	2.37	3.67	3.20	No co-integration

Source: Authors Computation from E-views 10.

Visible from table 4.3 that the derived F-statistic (2.01234) is smaller than the value of I (0) bound at a 5% level (2.79). The decision goes thus since there is an absence of co-integration among selected variables after estimation of the ARDL Bounds test, this suggests that there is no long-run relationship between external debt, inflation, foreign direct investment, and economic growth in Nigeria.

Table 4.4: Short-run ARDL model's estimation output

Variable	**Coefficient**	**Std. Error**	**t-statistic**	**Prob.**
Constant	**-10.02978**	2.69420	-3.72272	0.0008
d(loggdpgr(-1))	0.09345	0.14280	0.65439	0.5177
d(logfdii(-1))	**0.00099**	0.00055	1.78661	0.0456
d(logexd(-1))	0.00045	0.00094	4.86425	0.0000
d(loginf(-1))	**-0.09734**	0.0404	-2.40781	0.0022
R^2= 0.60894 Adj. R^2 = 0.54587 F-stat= 9.65467 Prob(F-stat)= 0.00000 D.W stat= 1.90				

Source: Authors Computation from E-views 10.

Interpretation of the results above goes thus; the computed value of R^2 depicts that the model has a good fit as explanatory variables jointly explain 60.8% of the movement in the dependent variable alongside the adjusted R^2 of 54.5%. Testing for overall significance through the auspices of the F-test, as seen in Table 4.4, shows that the estimated model and its variables are significant in explaining variations present in the dependent variable.

External debt as seen in the ARDL short-run estimation output and the bounds testing results shows that there is no long-run association between external debt and economic growth in Nigeria. This result speaks volume in the Nigerian case positing that external debt stock possesses a positive short-run impact on economic growth evidenced by its significance at 5%. Our finding is distinctive from studies that holds that external debt has both short and long-run relationship with economic growth in Nigeria as seen in Kudaisi (2015), Ndubuisi

(2017) and Ijirshar, et al. (2016). On the other hand, Ndubuisi (2017) posited that external debt service has no long-run relationship with GDP. Our conclusion based on empirical analysis shows that increase in the stock of external debt increases economic growth in Nigeria for the period under review in tandem with Kudaisi & Idharhi (2015) whereas findings from Adegbite, et al. (2008) opposes the earlier view in its entirety. Foreign direct investment on the other hand, from our empirical analysis, depicts a notorious absence of long-run relationship between foreign direct investment and economic growth in Nigeria putting forward a reverse option stating the presence of a short-run relationship between FDI and economic growth in Nigeria. From table 4.4, increase in foreign direct investment engenders economic growth only in the short-run. Oladapo, et al. (2015) posited strongly in a similar empirical attempt stating that foreign direct investment inflows impacts the Nigeria economy positively compared to external debts. Kudaisi (2015) and Kudaisi & Idharhi (2015) using ARDL as its base econometric technique posited that FDI and external debt have a positive and statistically significant effect on economic growth in Nigeria.

5.0 Conclusion and Recommendations

The purpose of this study is to ascertain if inflow of FDI and external debt significantly impacted the growth of the Nigerian economy from (1980-2017). Specifically, the study set out to ascertain the long-run impact of external debt and foreign direct investment on economic growth in Nigeria. To achieve the research objective set, the study employed the ARDL Bounds test to ascertain the existence of a long-run relationship between foreign direct investment, external debt and economic growth in Nigeria.

Our research finds that foreign direct investment, external debt, inflation and economic growth are not cointegrated by virtue of the ARDL Bounds test results reiterating the absence of a long-run relationship between the aforementioned variables. Foreign direct investment and external debt possesses a positive and significant effect on economic growth in Nigeria only in the short-run whereas inflation possesses a negative and significant effect on economic growth in Nigeria only in the short-run. The study recommended that borrowed funds acquired to finance capital and developmental projects should be properly channelled towards the actualisation and full implementation of such projects. Furthermore, debt monies should be monitored to avoid diversion into private accounts of individuals.The study recommended that federal government through the Debt Management Office will provide an efficient managerial framework for funds borrowed to prevent exceeding healthy thresholds.

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