External Debt and Economic Growth in Nigeria

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Abstract - **External debt may help or hurt the country depending on how it is used. Thus, this paper focused on the impact of external debt on economic growth in Nigeria from 1980 to 2017. Secondary data on real gross domestic product, external debt, external debt service and exchange rate were sourced from CBN statistical bulletin. The Augmented Dickey-Fuller unit root test and Autoregressive Distributed Lag techniques were used as the main analytical tools. The result of the unit root test revealed that the variables were stationary at order zero and one, which satisfied the requirement to employ the ARDL Bounds testing approach. The ARDL Bounds test revealed the existence of long run relationship among the variables. Furthermore, the result revealed that external debt and external debt service have negative and significant relationship with economic growth in Nigeria both in the long run and short run. However, exchange rate has positive and significant relationship with economic growth in Nigeria during the period of study both in the long run and short run. In conclusion, debt is an important development resource but its misuse can be disastrous as had been the Nigerian experience before it got out of the debt trap in 2005. Therefore, government should ensure that the terms of borrowing and the projects for which the borrowed funds are put should be those that benefit the economy and the people. Government should also ensure that debt proceeds are efficiently managed so that Nigeria can avoid a repeat of the ugly history of debt overhang.**

Key Words: **Debt, External, Economic Growth, ARDL and Overhang**

I. INTRODUCTION

One macro-economic problem facing most nations including Nigeria is the achievement of sustainable economic growth. The internal generated revenue and other public finance sources in Nigeria are not adequate to sustain the growth and development of the economy (Gbosi, 2015). Thus, external borrowing (external debt) enables the government to obtain additional resources to finance growth and developmental programmes in order to improve the standard of living of her citizenry. According to Tom-Ekine (2011), the provision of socio-economic necessities of the people such as education, health, etc. may necessitate external borrowing by the government.

Moreover, external debt (external borrowing) is borrowing in foreign currency from non-resident creditors. Todaro and Smith (2011) see it as the total private and public foreign debt owed by a country. To Ajie, Akekere and Ewubare (2014), external debt refers to unpaid portion of external resources acquired for developmental purposes and balance of payments support, which could notbe repaid when they fell due. In other words, external debts are debts owed by

a country to institutions of countries abroad, that is, the creditors are foreigners, which in case its servicing and repayment will mean a drainage of national resources in favour of those foreigners.

The advantage of foreign debt is that it can be used in financing development programmes. Some projects in Nigeria including the building of the Kainji Dam and the construction of Lagos-Ibadan expressway were funded by loans. According to Umo (2012), "the debt accumulation process essentially involves capital formation in the economy. This is because the debts can be translated into real capital stock which in turn enhances the growth of the economy. For instance, the Eko Bridge in Lagos was built with a foreign loan of £10 million (Umo, 2012). If the external debt is invested in projects which have good potentials and prospects of accelerating economic growth it will improve total factor productivity through an increase in output which in turn enhances Gross Domestic Product (GDP) growth of a country but if it (external debt) is not efficiently administered it will hurt the economy. Therefore, external debt may help or hurt the country depending on how it is used.

The Nigeria's external debt began in 1958 when $28 million was contracted for the construction of rail way. Moreover, the level of external debt was minimal for the period 1958 to 1977; because debts obtained during the period were the traditional debts from bilateral and multilateral sources with longer repayment periods and interest rate was much lower than the market rate. Also, debt servicing was easy at that time because oil price was high. However, the fall in the price of oil in the global oil market in 1978 made the government to depend more on foreign debt to fund developmental programmes in Nigeria. Gbosi (2015) and Tom-Ekine (2011) identified factors responsible for the increase in trend of Nigeria's external debt to include rapid growth in public expenditures particularly capital projects, borrowing from the international community at non-concessional interest rates, decline in oil earnings from 1970s and the emergency of trade arrears. The inability to settle imports bills led to the rapid build-up of trade arrears in the early 1980s. Another cause of external debt problems was that some project-tied loans were contracted without consideration for economic growth. In addition, these were short term loans sourced mainly from foreign private markets to execute projects of long gestation periods.

The above development resulted in debt overhang. According to Tom-Ekine (2011), the poor investment and growth performance of the highly indebted countries

including Nigeria in recent years is frequently attributed to the burden of their foreign debt. This means that too much external debt and inability to manage external debt in most developing countries including Nigeria are some of the impediments to their economic growth and development. Hence, it is the government's duty to manage its debt in an economically reasonable manner. Over the years, the governments of Nigeria have enunciated several international debt management approaches to reduce the burden of foreign debt on the economy and ensure sufficient economic growth and development. Such approaches include rescheduling the debt, debt conversion or liquidation.

Available evidence revealed that the various strategies used in managing Nigeria's external debt have not achieved their desired objectives including reduction of external debt stock. This is because over the years Nigeria's external debt has been rising steadily. For instance, in 2013 the CBN revealed that at US$8.8 billion, Nigeria's external debt grew by 35.2 per cent from the level at end-December 2012 (CBN, 2013). At US$9.7 billion, Nigeria's external debt grew by 10.1 per cent over the level at end-December 2013 (CBN, 2014). At US$10.7 billion, Nigeria's external debt at end-December 2015 grew by 10.4 per cent over the level at end-December 2014 (CBN, 2015). At US$11.4 billion, Nigeria's external debt at end-December 2016 grew by 6.4 per cent or 3.4 per cent of GDP over the level at end-December 2015 (2016). At US$18.9 billion or 5.0 per cent of GDP, Nigeria's external debt at end-December 2017 grew by 65.8 per cent over the level at end-December 2016 (CBN, 2017). At US$21.6 billion or 5.3 per cent of GDP, Nigeria's external debt at end-September 2018 grew by 14.2 per cent over the level at end-December 2017 (CBN, 2018).

In addition, external debt service payment has also maintained an increasing trend in Nigeria. For instance, external debt service payments stood at ₦46.8 billion or US$0.3 billion in 2013. The external debt service consisted of amortization (principal repayment) of ₦24.3 billion, or 52.0 per cent, and actual interest payments of ₦22.5 billion, or 48.0 per cent (CBN, 2013). CBN (2013) further stated that the debt service/revenue ratio increased from 21.1 per cent in 2012 to 23.2 per cent in 2013, implying that a higher proportion of the total revenue was devoted to debt service during the 2013 than in 2012. In 2014, 2015, 2016, 2017 and 2018; external debt service payments stood at ₦55.0 billion or US$0.35 billion, ₦64.7 billion or US$0.3 billion, ₦89.5 billion (US$0.4 billion), ₦141.9 billion (US$0.5 billion, and ₦390.9 billion (US$1.3 billion) respectively (CBN, 2014, 2015, 2016, 2017 &2018).

In the light of the above, greater revenue of the country is devoted to servicing external debt. This revenue which could have been used to fight poverty and support economic growth is diverted to servicing external debts.

Nonetheless, a number of studies on different aspects of this subject have been carried out using various methods to analyze the relationship between external debt and economic growth. However, the studies have provided mixed results, while studies such asZaman and Arslan (2014); Odubuasi, Uzoka and Anichebe (2018), as well as Obayori, Krokeyi and Kakain (2019)revealed that external debt exerts a positive impact on economic growth, Ochalibe, Awoderu andOnyia (2017)discovered a negative association between external debt and economic growth. The difference in empirical findings on the relationship between external debt and economic growth is of serious concern, especially to Nigeria. The above state of affairs raised a lot of very pertinent questions: Is there a significant relationship between external debt and economic growth in Nigeria? If so, is the relationship a positive or a negative? Answers to these questions were the main concern of this paper. The remaining parts of this paper were structured into literature review, methodology, results and discussion, as well as conclusion and recommendations.

II. LITERATURE REVIEW

The Concept of External Debt

A country's debt is the amount of money the country owes to institutions and other agencies either resident in or outside the country. So, government debt is defined either as domestic or foreign (external) public debt. A debt is domestic when it is owed to residents or firms within the country. But it is called external debt when it is owed to foreigners (Gbosi, 2015). Todaro and Smith (2011) defined external debt as the total private and public foreign debt owed by a country. To Ajie, Akekere and Ewubare (2014), external debt refers to unpaid portion of external resources acquired for developmental purposes and balance of payments support, which could notbe repaid when they fell due. In other words, external debts are debts owed by a country to institutions of countries abroad, that is, the creditors are foreigners, which in case its servicing and repayment will mean a drainage of national resources in favour of those foreigners.Nigeria has contracted a number of debt obligations from external sources. Prominent among them are the Paris Club of Creditors, London Club of Creditors, Multilateral Creditors, Promissory Notes Creditors, Bilateral and Private Sector Creditors.

The origin of Nigeria's external debt dates back to 1959 when a sum of ₦28 million was contracted for railway construction. Available data shows that Nigeria's external debt stock stood at $13.1 billion in 1982. It rose further from $23 billion in 1987 to $28.7 billion at the end of December 1988 (Gbosi, 2015). Since 1990, Nigeria's external debt stock has been rising steadily. In 1993, Nigeria's external debt stock outstanding stood at ₦633.144.4 million. Out of the total outstanding debt, the Paris Club contributed 83.2 percent in 1993. The balance was owed to the London Club, the unilateral creditors, Promisary Note Transfers and others, (CBN, 1994). Nigeria's foreign debt stock stood at ₦279, 044.1 million and ₦313, 504.7 million in 2000 and 2001 respectively. By the end of 2002, it had pumped to a high of

₦375, 700.1 million (CBN, 2003). Nigeria's foreign debt stock at the end of December 2003 was ₦82.9 billion (Gbosi, 2015). This represented an increase of ₦8.3 billion or 6.1 percent when compared with 2002 figures. By 2004, it had increased to ₦35.9 billion. This represented an increase of 9.2 percent over the previous year's level of ₦32.0 billion. The stock of Nigeria's foreign debt rose marginally from ₦3.5 billion in 2006 to ₦3.8 billion in 2007 following the contracting of new concessional loans (CBN, 2007). According to CBN (2010), at $4.6 billion, Nigeria's external debt grew by 6.0 percent over the level at the end of December 2009. The rise reflected drawn down of additional loans by the Federal Government amounting to U. S $713.3 million.The country's external debt has increased substantially since 2005. According to Gbosi (2012), the only exception, however, was from 2006 – 2010, when the country observed a substantial fall in the nation's external debt stock. During this period, Nigeria was able to pay most of her external debt. The situation has worsened again since the first quarter of 2011. Several factors were responsible for the trend. The main factor was rapid growth in public expenditures particularly capital projects. Other factors include borrowing from the international community at non-concessional interest rates, decline in oil earnings and emergency of trade arrears.

External Debt Management in Nigeria

The existence of a large public debt places considerable responsibility on the national government. Hence, it is government's duty to manage its debt in an economically reasonable manner. External debt management which can be described as policy which seeks to change thestock, composition, structure and terms of debt with a view to maintaining at any giventime, a sustainable level of debt service payment, has become an essential issue inthe management of the economy. It involves a conscious and carefully planned scheduled of the acquisition, deployment and retirement of loans contracted either for development or to support balance of payments purposes (Tom-Ekine, 2011). It includes fiscal policy which affects the size of the debt and the Central Bank open market operations which can affect the debt. Debt management arises from the need to minimize debt burden on the economy, which emanates from deficit of fiscal operations.According to Tom-Ekine (2011) debt management aims at proper timing and issuing of government debt instruments, stabilizing their prices and minimizing the cost of serving debt. Supporting the above, Gbosi (2015) argued that debt management aims at financing external debt at the lowest possible interest rates. It is equally logical to accept to lengthen the maturities of the securities comprising the debt structure. Such policies may influence employment, price level, balance of payments and other economic goals of society in either a favourable or unfavourable manner (Herber, 1979). Foreign debt management requires estimates of foreign exchange earnings, sources of foreign finance, and the repayment schedule. Foreign debt management also

included an assessment of the country's ability to service (or repay) existing or current debts and a judgment of the desirability of contracting further loans (CBN, 1997). Consequently, the primary objective of debt financing is to improve the debt portfolio in the short run. In addition, it aims at reducing the burden of debt financing and redemption of government securities. More importantly, it provides the process of managing the public debt and the repayment of the principal, payment of interest and arranging the refinancing of outstanding debts.

Management of debt can be effective and efficient or inefficient. Omoruyi (1996) opined that an efficient debt management approach should result in debt services ratio stabilizing at about 20-24% of GDP. Omoruyi further stated that debt management policy is any official action by the Central Bank as well as the treasury, designed to alter the quantity and kinds of government's debt obligations outstanding.Efficient debtmanagement involves proper portfolio analysis which among others makes it possiblefor proper schedule of maturities to be compiled and adhered to in order to avoidbunching and defaults. When appropriate schedule of maturities is in place, debtretirement is made simple and early signals are readily observed when resources areslim and defaults become imminent. This makes it possible for appropriate actions tobe taken to prevent serious debt management crises from reaching critical levels.In effect, portfolio analysis is a major activity that should be undertaken if a country is toavoid debt overhang. This involves active and continuous review of debt portfolio toquantify and monitor the level of outstanding debt and debt service to guaranteeoptimaldebt structure and composition vis-à-vis interest, maturities and exchange rateexposure. It highlights opportunities for portfolio improvement and identifies debtservicing difficulties. This activity also involves the review of economic background;portfolio by creditor, borrower and the use of funds; the debt service projection; actualmanagement of debt; as well as issues relating to institutional arrangements involvingguarantees, procedure and information flow.

Over the years, the Central Bank of Nigeria and the Federal Ministry of Finance were the major agencies involved in managing Nigeria's external debt. More recently, a Debt Management Office (DMO) has been established in the Presidency to support the CBN and the Federal Ministry of Finance. The DMO is charged specifically with all issues relating to debt management in the country.

Several methods are used in financing Nigeria's external debt in order to reduce the burden of the external debt on the economy. The major methods used in managing Nigeria's external debt are debt restructuring, debt refinancing, rescheduling of debt, debt buy-back, limit on debt service payment, debt conversion and debt liquidation. Todaro and Smith (2011) opined that debt restructuring involves altering the terms and conditions of debt repayment, usually by lowering interest rates or extending the repayment period.

Specifically, it involves the conversion of an existing debt into another category of debt, through refinancing, rescheduling, buy-back, issuance of collateralized bonds, and the provision of new money. Debt refinancing involves a new medium-term loan in the amount of the debt that is due which is paid with the proceeds of the loan. Put differently, a refinancing arrangement involves the procurement of a new loan by a debtor to pay off an existing debt, particularly short-term trade debt. This can be procured from the same creditor or a new set of creditors. The first refinancing arrangement was in July 1983. Debt rescheduling involves changing the maturing structure. The debt is usually spread over a longer period until it is finally liquidated. The Debt Management Office (DMO) in 2005 revealed that Nigeria has rescheduled her debts with the Paris Club on four different occasions: 1986, 1989, 1991 and 2000. The efforts on debt rescheduling led to re - scheduling of Nigeria's Paris Club debt totaling US$20.5 Billion in 2000 over an 18-20 year period (CBN, 2013).

Debt conversion can be explained as anapproach, which enables a debtor country to reduce its foreign debt burden by changing the character of the debt. It is the exchange of financial instruments (e.g., promissory notes) for tangible assets or other financial instruments. Gbosi (2015) sees debt conversion as a process which involves the exchange of a debtor country's external debt for equity participation in a local currency. Nigeria's debt conversion programme is aimed at stemming the tide of resource transfer through the encouragement of capital inflow, repatriation of flight capital and recapitalization of enterprises in the private sector. Through the appropriation of the substantial discounts offered and the commissions paid the country benefits and reduces its debt stock.

Since the adoption of this technique, several types of debt conversion programme have been applied in Nigeria. The most one is debt for equity conversion. This involves the exchange of foreign debt for domestic equity. A mechanism used by indebted developing countries to reduce the real value of external debt by exchanging equity in domestic companies (stocks) or fixed-interest obligations of the government (bonds) for private foreign debt at large discounts (Todaro and Smith, 2011).

Another method used in managing external debt is debt liquidation. The architects of debt liquidation have argued that most of the debts were contracted through the auspices of international creditors which used local collaborations in achieving their objectives. Hence, debt should be liquidated. Meanwhile, other strategies have been used in managing Nigeria's external debt. Such modern strategies include new loan embargo, and debt concession. These strategies of foreign debt management led to an outright settlement of both Paris Club and London Club loans (debts) in 2006 (Tom-Ekine, 2011).

The Concept of Economic Growth

Economic growthis defined in terms of achievement of yearly increases in both the total and per capita output of goods and services. In other words, it refers to the sustained increase in the actual output of goods and services (Akpakpan, 1999). Moreover, Ohale (2002) defined economic growth in two senses. In one sense, as the increase in the productive capacity of the economy leading to an increase availability of goods and services in the economy over some given period of time. In another sense, as sustained increase in per capita output of goods and services over a period of time. In a similar vein, Tom-Ekine (2011) wrote that economic growth is defined as the process whereby the real per capita income of a country increases over a long period of time.

According to Ekpo (2017), "economic growth refers to a rise in national income and product; in other words, it is the percentage change in two consecutive years' output or GDP. It connotes a sustained increase in GDP over-time." Economic growth is measured by the increase in the amount of goods and services produced in a country. Thus, growth is also expressed in terms of increases in the gross output of the economy per period of time. All countries desire to achieve faster rates of economic growth because economic growth is seen to be the most effective way to bring about higher living standards in the economy, economic growth also offers the prospect for the reduction of poverty and it is an important instrument for acquiring power and prestige – political and military strengths are dependent upon economic power, also the more a country can produce and satisfy the needs of her citizens, the more the country will be respected by other countries (Ohale, 2002). An economy that is growing will produce more goods and services in each consecutive time period.

Growth is always thought of as a desirable objective for any economy but there is no agreement over the annual growth rate which an economy should attain. Generally, economists believe in the possibility of continual growth. For instance, once at full employment, the economy must continue to grow in order to remain at full employment. Growth occurs when an economy's productive capacity increases which in turn, is used to produce more goods and services. Factors which lead to growth include improvements in the skill and training of labour force, increase in productivity, i.e., output per hour of work, better management and technology, enlarged excellence and higher excellence of the stock of capital.

Furthermore, two related factors explain the poor performance of Nigerian economy. They are inadequate productive capacity and inadequate administrative (executive) capacity. Regarding inadequate productive capacity, the country has a very limited capacity (that is, the knowledge and skills needed) to produce goods and services. The country lacks the knowledge and skills needed to produce most of the goods her citizens want. As a result, Nigerians have had to

depend on other countries for the production of most of the services and goodsthey need or want to consume, including basic needs of the people.

A cursory look at many goods that are said to be 'made in Nigeria', and examine what is involved in the production revealed that most of the local factories (or companies) require 'foreign technical partners' or 'experts' to be able to produce their output. This phenomenon means that the country lacks the relevant knowledge and skills – the capacity – to produce the goods or service in question; that is; we cannot on our own produce goods or services no matter the intensity of demand. The same is true of any good or service whose production depends critically on some foreign input.

In addition, inadequate administrative capacity is about the capacity of governments to govern well; that is, the capacity to formulate appropriate public policies and effectively implement them to achieve adequate economic growth. But successive governments in Nigeria have not been particularly successful in the management of the economy. We have been relatively good at policy formulation, but very poor at implementation. Recall the experiences with any of the highly published policies and programmes of some of our governments.

Specifically, the unified rural development policy which was to be followed through the Directorate of Food, Road, and Rural Infrastructure (DFRRI) programme, Programme, the Rural Banking Scheme, the Rural Electrification Programme, the Rural Water Scheme, the National Housing Programme, the Green Revolution, the Mass Transit Programme and etcetera. Each of these programmes failed to produce the expected results because of poor implementation. Because of the lack of administrative capacity, it therefore means that we are not going to be able to improve the functioning of our economy and the welfare of the society unless we effectively address the capacity problem.

To achieve higher growth rates, government must direct a major part of its resources to the agricultural, educational, health, transport and communication sectors with high growth potentials. Government must formulate and effectively implement policies to tackle the problems of inadequate economic growth, low human development, high rate unemployment and poverty. We cannot expect to achieve adequate economic growth needed to reduce unemployment and poverty if we do not have the capacity to formulate and effectively implement policies to tackle the problems. There is often much room for discussion on what constitutes a desirable rate of economic growth and governments may quote specific goals for economic growth. Economic growth is necessary if living standards must not fall. But, economic growth alone is not enough to promote social welfare. The society needs economic growth and other desirable changes in the system (Akpakpan, 1999).

Review of Theoretical Literature

Attempts to explain the problem of external indebtedness of both developed and developing countries has given rise to a number of theoretical postulates over the years. The outstanding theories that have gained popularity in economic and financial literature include the debt over hang hypothesis, the crowding out hypothesis and the non-evil doctrine. Debt-overhang occurs when a nation's debt is more than its debt repayment ability. Ezirim (2005) explains the debt overhang hypothesis as one where the accumulated stock of debt acts as a tax on future income and production, and thereby acts to impede investments by turning away the private sector (foreign and domestic) investors. The "debt overhang effect" comes into play when accumulated debt stock discourages investors from investing in the private sector for fear of heavy tax placed on them by government. This is known as tax disincentive. The tax disincentive here implies that because of the high debt and as such huge debt service payments, it is assumed that any future income accrued to potential investors would be taxed heavily by government so as to reduce the amount of debt service and this scares off the investors thereby leading to disinvestment in the overall economy and as such a fall in the rate of growth (Ayadi&Ayadi, 2008). When a country's debt service burden is huge that a large proportion of output accrues to foreign lenders it will create disincentive to invest. Moreover, when investments are discouraged in an economy, the rate of capital accumulation will be reduced, and so would the rate of economic growth decline in real terms. Through this channel, high debt stock is said to have a negative influence on economic growth and development (Iyioha, 1977). According to Claessens (1996);Obayori, Krokeyi, and Kakain (2019), debt overhang concept is on the premise that in future, a country's debt will exceed the country's repayment ability. Therefore, the expected debt service will be an aggregate function of the output of the economy. As in Ezirim (2005), high debt stock is harmful and damaging to economic growth and development, especially, in poorer countries. But a decrease in the current debt service will lead to an increase in current investment for any given level of future indebtedness.Elbadawi, Ndulu and Ndung'u (1996) postulates that debt reduction will lead to increased investment and repayment capacity and, invariable give room for repayment of outstanding debt.

Debt service burden in Nigeria has hindered fast growth and development and has also worsened social issues. Nigeria's expected debt service is seen to be increasing function of her output and as such resources that are to be used for developing the economy are indirectly taxed away by foreign creditors in form of debt service payments. This has further increased uncertainty in the Nigerian economy which discourages foreign investors and also reduces the level of private investment in the economy. The validity of the debt overhang hypothesis was clearly confirmed in the work of Bonesztein (1990), where he used date for the Philippines to

find that debt overhang had an adverse effect on private investment. Particularly, debt overhang effect was strongest when private debt, rather than total debt, was used as the initial indicator. Iyioha's (1997) study also confirms the validity of debt overhang hypothesis.

Another theoretical issue that is gaining prominence on the subject of foreign debt is the crowding out hypothesis. According to this school of thought, external debt burden in developing countries has a crowding out effect. The crowding-out effect refers to a situation whereby a nation's revenue which is obtained from foreign exchange earnings is used to pay up debt service payments. This limits the resources available for use for the domestic economy as most of it is soaked up by external debt service burden which reduces the level of investment. In addition, Anyanwu (1997) submitted that borrowing by the government can bedriven to a level where it begins to crowd out our important private sector investment because interest rates are pushed too far and because the ability of banks and other financial institutions (BOFI) to lend to the private sector is reduced by the statutory appropriation of savings entrusted to their care. Iyioha (1997) argued the crowding out thesis from the perspective of debt service. According to him, high debt service in the face of declining foreign exchange earnings reduced the resources that could be devoted to importation of essential imports for promoting rapid economic development and also competed for the investment needs of the country for savings. The impact of debt servicing on growth is damaging as a result of debt-induced liquidity constraints which reduces government expenditure in the economy. These liquidity constraints arise as a result of debt service requirements which shift the focus from developing the domestic economy to repayments of the debt. Public expenditure on social infrastructure reduces substantially and this affects the level of public investment in the economy. The dampening impact of large (high) debt service payments on investment is what is called "the crowding out impact". This is consistent with the debt overhang effect where debt burden act as disincentive to and discourages investment by the private sector (especially foreigners) since they viewed the accumulated debt stock as a tax on future income and production.

According to Anyafo (1996), when the government borrows from abroad, the situation is altered since additional resources are injected into the economy for investment purposes. This position appears to be incongruent with the debt overhang hypothesis. For one thing the argument is that since foreign resources are made available through external bon-owing, such additions would permit the achievement of a higher growth, increased domestic income, and economic development. Perhaps, the above submission of Anyafo (1996) can be said to follow the precepts of the non-evil doctrine of external borrowing that characterize what has become known as the IMF School. According to this school, external borrowing is a key vector of economic development of any nation, since no country (developed or developing) is

able to grow and develop to optimal height without one form of external capital or the other. Thus, there is nothing wrong for a country to receive financial assistance in the form of borrowing, from another. It is a root to attaining desired levels of growth and development. For one thing, borrowing is not bad or necessarily burdensome itself, as some would have it, but the problem lies squarely with the uses to which the amounts borrowing are put. It is on the strength of this that developing economies are encouraged to ensure that borrowed funds are tied to specific viable project in order to reap the benefits of the financial accommodation. This has become known among development economists as the accommodation- project-tie doctrine of external, borrowing. This theory argues that it is only when external funds are committed to viable and profitable ventures and projects that guarantee of repayments can be ensured. For instance, a very important element of external indebtedness is repayments in foreign exchange. Where the project is unable to live to its bidding, the liquidation of the borrowed funds becomes problematic. Even when the project is profitable it may not reduce, the pressure on foreign exchange the country is face with acute shortage of foreign exchange relative to demand, unless the project has ability to generate foreign currency on its own. Thus, if not export oriented, the external debt still is burden-some on available foreign exchange in view of compulsory capital repayments. It is on this basis that tire accommodation project-tie theorist further argue that funds from external sources should mainly be channeled into export-oriented projects. These theoretical issues require concerted empirical substantiation, as they have not been properly resolved using up-to empirical evidence from such emerging sub-Saharan African countries as Nigeria.

Furthermore, the need to borrow from foreign sources arises from the recognized role of capital in growth and developmental process of any country. Sustainable economic growth requires a given level of savings and investment and in a case where it is not sufficient, it results in external borrowing. Herein lays the basis for the two-gap model. According to Jhingan (2007), the idea of two-gap model is that the "savings gap" and "foreign exchange gap" are two separate and independent constants on the attainment of a target rate of growth in Less Developed Countries (LDCs). As reported by Todaro and Smith (2011), the basic argument of the two-gap model is that most developing countries face either a shortage of domestic savings to match investment opportunities or a shortage of foreign exchange to finance needed imports of capital and intermediate goods. They further reported that the two-gap model is a model that compares savings and foreign exchange gaps to determine which one is the binding constraint on economic growth. Savings gap is the excess of domestic investment opportunities over domestic savings, causing investments to be limited by the available foreign exchange. Foreign exchange gap is the shortfall that results when the planned trade deficit exceeds the value of capital inflows, causing output growth to be limited by the available foreign exchange

for capital goods imports. The model assumes that savings gap (domestic real resources) and the foreign exchange gap are unequal in magnitude and that they are essentially independent.

The two-gap framework is coined from a national income accounting identity which states that excess investment expenditure over domestic savings is equivalent to the surplus of imports over exports. Thus, at equilibrium; $I - S = M - X$ …… (1)

Where; I-S = Domestic Savings Gap, M-X = Foreign Exchange Gap, I = Investment, S = Savings, M = Import, X = Export. An excess of import over export implies an excess of resources used by an economy over resources generated by it. This further implies that the need for foreign borrowing is determined overtime by the rate of investment in relation to domestic savings. The implication is that one of the two gaps will be "binding" for any developing economy at a given point in time. In order to relieve saving or foreign exchange bottleneck, external finance (both loans-borrowing and grants) can play a critical role in supplementing domestic resources. Supporting the above, Omoruyi (2005) opined that most economies have experienced a shortfall in trying to bridge the gap between the level of savings and investment and have resorted to external borrowing in order to fill this gap. This gap provides the motive behind external debt to increase savings and investment in the country.

Review of Empirical Literature

Obayori, Krokeyi, Kakain (2019)investigated the impact of external debt on economic growth in Nigeria for the period 1980 to 2016 using Generalized Method of Moments (GMM). The GMM result revealed a positive and significant relationship between external debt and economic growth in Nigeria.

Tamimi and Jaradat (2019) examined the effect of external debt on economic growth in Jordan from 2010 to 2017 using descriptive statistics. The result revealed that there is a negative and significant relationship between external debt and economic growth in Jordan during the period of study.

Ademola, Tajudeen and Adewumi (2018) investigated the impact of external debt on economic growth in Nigeria for the period 1999 to 2015. The study employed econometric techniques including Johansen Co-integration and Vector Error Correction Mechanism. Results showed that external debt has an inverse effect on economic growth in Nigeria.

Al Kharusi and Ada (2018) examined the relationship between government external borrowing and economic growth from 1990 to 2015, prompted by continuous increases in Oman's external debt to finance its annual budget. The study employed the Autoregressive Distributed Lagcointegration approach. The outcome revealed a negative and significant influence of external debt on economic growth

in Oman. Furthermore, gross fixed capital was found to be positively significant in determining growth performance in Oman.

Odubuasi, Uzoka and Anichebe (2018) used Granger Causality test and Error Correction Mechanism (ECM) to investigate the effect of external debt on the economic growth of Nigeria from 1981 to 2017. It statistically used external debt stock, external debt service cost and government capital expenditure as indices for independent variable and gross domestic product as the dependent variable. The outcome of the research showed that foreign debt stock and government spending on capital projects have positive and significant effect on economic growth in Nigeria. However, in explaining economic growth in Nigeria, foreign debt service cost is not significant.

Ndubuisi (2017) analyzed the impact of external debt on economic growth of Nigeria from 1985 to 2015. Data for the study were analyzed using the ordinary least square regression, ADF unit root test, Johansen cointegration and error correction test. Findings revealed that debt service payment has negative and insignificant impact on economic growth in Nigeria while external debt stock has positive and significant effect on Nigeria's growth index. The control variables: external reserve and exchange rate have positive and significant effect on growth. Johansen cointegration test showed long-run association between foreign debt and GDP. It also showed that the variables have at least one common stochastic trend driving the relationship between them. The causality test indicates unidirectional causality between external debt and GDP.

Akram (2016) examined the consequences of public debt for economic growth and poverty regarding selected South Asian countries, i.e., Bangladesh, India, Pakistan and Sri Lanka, for the period 1975–2010. The researcher developed an empirical model that incorporates the role of public debt into growth equations and the model is extended to incorporate the effects of debt on poverty. The model was estimated by using standard panel data estimation methodologies. The results showed that although public debt has a negative impact on economic growth, neither public external debt nor external debt servicing has a significant relationship with income inequality, suggesting that public external debt is as good/bad for poor as it is for rich. However, domestic debt has a positive relationship with economic growth and a negative relationship with the GINI coefficient, indicating that domestic debt is pro-poor.

Mbah, Umunna and Agu (2016) investigated the impact of external debt on economic growth in Nigeria using the ARDL bound testing approach to cointegration, error correction mechanism and Granger causality test for the period 1970 to 2013. The result of the study revealed that external debt has a negative and significant impact on economic growth. There is a long-run relationship among the

variables. The outcome also showed a unidirectional causality between foreign debt and economic growth.

Nwannebuike, Ike andOnuka (2016) examined the impact of external debt on economic growth in Nigeria from 1980 to 2013. Data for the study were analyzed using Co-integration and Error Correction Mechanism. The finding revealed that external debt has a positive relationship with gross domestic product at short run, but a negative relationship at long run. Also, external debt service payment had negative relationship with gross domestic product.Meanwhile, exchange rate has a positive relationship with gross domestic product.

Udeh, Ugwu and Onwunka (2016) examined the impact of external debt on economic growth in Nigeria. Theestimated model was analyzed using Error Correction Mechanism. The findings showedthat external debt and exchange rate had a positive relationship with gross domestic product at short run, but a negative relationship atlong run. However, external debt service payment had negative relationship with gross domestic product.

Ibi and Aganyi (2015) investigated the impact of external debt on economic growth in Nigeria. The variance decomposition and impulse response from Vector Auto-Regression (VAR) was the econometric technique employed to test whether or not external debt, ratio of external debt to exports and other economic control variables stimulate economic growth. Based on the two-stage data processing, the result revealed a weak causation between external debt and economic growth in the Nigerian context. This implies that external debt could not be used to forecast improvement or slowdown in economic growth in Nigeria.

Zaman and Arslan (2014) applied Ordinary Least Squares method of econometrics to examine the role of external debt on economic growth in Pakistan economy. The outcome of the research indicated that gross capital formation and foreign debt stock have significant positive effect on GDP while gross domestic saving does not have significant impact on GDP of Pakistan.

Sulaiman and Azeez (2012) examined the effect of external debt on the economic growth of Nigeria from 1970 to 2010. Error Correction Method (ECM) was used as the major technique of analysis. The findings from theerror correction method showed that external debt has contributed positively to the Nigerian economy.

Ajayi and Oke (2012) investigated the effect of the external debt burden on economic growth and development of Nigeria using Ordinary Least Squares econometric technique. The finding indicated that external debt burden has an adverse effect on the nation income and per capital income of the nation.

Udoka and Anyingang (2010) examined the connection between external debt managementpolicies and economic growth of Nigeria over the period 1970-2006. The

ordinary least squaresmultiple regression technique was used to analyzed data gathered for the period under review. The result of the empirical analysis revealed the major determinants of external debt in Nigeria to include exchange rate, GDP, fiscal deficit, interbankrate and terms of trade.

III. RESEARCH METHODS

The research design adopted in this study was ex-post facto design (the use of secondary data). Data used in this study were all sourced from the Central Bank of Nigeria (CBN) statistical bulletin and annual reports and accounts for the 1980-2017 periods. The study employed the Augmented Dickey Fuller test (ADF) unit root test and Autoregressive Distributed Lag (ARDL) methods to examine the relationship between external debt and economic growth in Nigeria. Following the postulation of Obayori, Krokeyi, Kakain (2019) and the theoretical underpinnings of the debt overhangs and liquidity constraint hypotheses models which state that if debt exceeds a country's servicing (repayment) ability, expected debt service is an increasing function of the level of output. Similarly, the liquidity constraint posited that debt service reduces funds available for investment and growth, this study specified, output to be a function of external debt:

$$Y= f(EXD) \tag{3.1}$$

Where; Y is output and EXD is external debt. This study included external debt service and exchange rate which were not captured in the empirical work of Obayori, Krokeyi, Kakain (2019). Thus, the model of this study posited that a well-managed external debt, external debt service and exchange rate will bring about increase in economic growth.

Thus, the model is stated as; $RGDP_t = \alpha_0 + \alpha_1 EXD_t + \alpha_2 EDS_t + \alpha_3 EXR + e_t$ \qquad (3.2)

Where: RGDP= Real Gross Domestic Product, EXD = External Debt, EDS = External Debt Service, EXR = Exchange Rate, α_0 = intercept Parameter, e= Error Term, α_1 - α_3 =Slope Parameters. **On the apriori**, it is expected that; α_1 and $\alpha_3 > 0$. While $\alpha_2 < 0$.

Techniques of Data Analysis

Unit Root Test

Before doing the ARDL analysis, it is necessary to test the stationary of the series. The Augmented Dickey-Fuller (1979) test was employed to deduce the stationary of the series. Commonly, the ADF test consists of estimating the following regression:

$$\Delta Y_t = Q_1 + Q_2 t + \delta Y_{t-1} + \Sigma \alpha_i \Delta Y_{t-i} + \varepsilon_t \tag{3.3}$$

Where: Y is a time series, t is a linear time trend, Δ is the first difference operator, ε is a pure white noise error term and $\Delta Y_{t-1} = (Y_{t-1} - Y_{t-2})$, $\Delta Y_{t-2} = (Y_{t-2} - Y_{t-3})$, etc. The number of lagged difference terms to include is often determined empirically, the idea being to include enough terms so that the error term

in (3.3) is serially uncorrelated. In ADF, we test whether δ = 0 (Gujarati & Sangeetha, 2007).

Autoregressive Distributed Lag (ARDL)

Autoregressive Distributed Lag (ARDL) is a long-established method of estimating co-integrating relationships, such as Engle-Granger (1987) method which requires all variables to be I(1), or require prior knowledge and specification of which variables are I(0) and which are I(1). To alleviate this problem, Pesaran and Shin (1999) and Smith (2001) showed that co-integrating systems can be estimated as ARDL models, with the advantage that the ARDL cointegration technique is adopted irrespective of whether the underlying variables are I(0), I(1) or a combination of both, and cannot be applied when the underlying variables are integrated of order I(2). However, to avoid crashing of the ARDL technique and, effort in futility, it is advisable to tests for unit roots since variables that are integrated of order I(2) leads to the crashing of the technique. In order to establish a long run relationship among the variables the first thing to do is to check the existence of the long-run relation between the variables under investigation by computing the Bounds F-statistic (bounds test for cointegration). Also, estimates provided by ARDL method avoid problems such as autocorrelation and endogeneity, they are unbiased and efficient. The Error Correction Model (ECM) can be derived from ARDL model through a simple linear transformation, which integrates short run adjustments with long run equilibrium without losing long run information. The associated ECM model takes a sufficient number of lags to capture the data generating process in general to specific modeling frameworks.

Therefore, the ARDL model for this study is presented thus:

$$\Delta RGDP_{t,j} = c_0 + c_1 RGDP_{t-1,j} + c_2 EXD_{t-1,j} + c_3 EDS_{t-1,j}$$
$$+ c_4 EXR_{t-1,j} + \sum_{i=1}^{n1} a_{1i,j} \Delta RGDP_{t-1,j}$$
$$+ \sum_{i=0}^{n2} a_{2i,j} \Delta EXD_{t-1,j} + \sum_{i=0}^{n3} a_{3i,j} \Delta EDS_{t-1,j}$$
$$+ \sum_{i=0}^{n4} a_{4i,j} \Delta EXR_{t-1,j} + \lambda ECMt - 1 + \mu_t$$
$$----- (4)$$

Where Δ is the difference operator while μt is white noise or error term, n is the optimal lag length, ECM_{t-1} is the error correction term, $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5$, represent the short run dynamics of the model and c_1, c_2, c_3, c_4, c_5, are the long run elasticities.

IV. RESULTS AND DISCUSSION

The study carefully examined the impact of external debt on economic growth in Nigeria from 1980 to 2017. Therefore, an econometric model was constructed for the growth of the Nigerian economy. The model has real gross domestic product (RGDP) as the dependent variable while external debt (EXD), external debt service (EDS) and exchange rate are the independent variables. The RGDP, EXD and EDS were measured in Nigeria currency. While exchange rate was measured as EXR (₦ /$). That is, as the price of a unit of a foreign currency in terms of the domestic currency. Thevarious regression results are presented and discussed in Tables one to five.

Table 1: Augmented Dickey-Fuller Unit Root Test

Variables	ADF Test	Critical Values	Order of integration
		critical value 5%	
RGDP	-6.859805	-2.945842	1(1)
EXD	-4.124148	-2.945842	1(1)
EDS	-3.024980	-2.943427	1(0)
EXR	-6.122261	-2.945842	1(1)

Note: RGDP, EXD, EDS and EXR as earlier defined

Source: *Authors' Computed Result from (E-views 9.0)*

The result of the ADF test for each of the series presented in Table 1 reveals that at five percent level of significance, RGDP, EXD and EXR were stationary at first difference 1(1) as their respective ADF statistics are greater than 5 percent critical values, while EDS was stationary at level 1(0). Given that the variables were integrated of order 1(0) and 1(1). The requirement to fit in an ARDL model to test for long run relationship is satisfied.

Table 2: ARDL Bounds Test for Co-integration

Model		F-Statistic = 12.00565
RGDP= F(EXD, EDS, EXR)		K = 3
Critical Values	Lower Bound	Upper Bound
10%	2.72	3.77
5%	3.23	4.35
1%	4.29	5.61

Source: *Authors' Computed Result from (E-views 9.0)*

The result of the ARDL bounds test for co-integration reveals that there is a long run relationship amongst the variables (RGDP, EXD, EDS and EXR). This is because the computed F-statistic of about 12.00565 is higher than the upper critical bounds at 1%, 5% and 10% critical values. This provided evidence to reject the null hypothesis of no co-integration at 1%, 5% and 10% significance level for the growth model. Following the establishment of long-run co-integration relationship among the variables, the long-run and short-run dynamic parameters for the variables were obtained.

Table 3: Estimated ARDL Long Run Coefficients. Dependent Variable: RGDP ARDL (4, 0, 3, 3)

Regressors	Coefficient	t-Statistic	P-Value
EXD	-0.049139	-7.967314	0.0000
EDS	-0.363120	-9.842915	0.0000
EXR	4936.011	34.92212	0.0000

Source: Authors' Computed Result from (E-views 9.0)

The estimated ARDL long run coefficients reveal that in the long run, external debt and external debt service have negative and significant relationship with economic growth in Nigeria. However, in the long run, exchange rate has a positive and significant relationship with economic growth in Nigeria.

Table 4: Error Correction Representation for the Selected ARDL Model ARDL(4, 0, 3, 3)

Regressors	Coefficients	t-Statistic	P-Value
EXD	-0.017913	-4.773445	0.0001
EDS	-0.035315	-2.638712	0.0157
EXR	631.4429	3.293314	0.0036
ECM (-1)	-0.364535	-6.871757	0.0000
R-squared = 0.999105 Adjusted R-squared = 0.998523	Akaike info criterion = 21.71048	Schwarz criterion = 22.33898	Durbin-Watson stat = 2.088478

Source: Authors' Computed Result from (E-views 9.0)

Table 4 shows the result of the short-run dynamic coefficients associated with the long-run relationships obtained from the ECM equation. The ECM is rightly signed (i.e., negative) and statistically significant. It shows about 36 percent disequilibrium in RGDP in the previous year (since the data are annual) is corrected in the current year. Also, the Durbin Watson (DW) value of 2.088478 suggests that autocorrelation is not a problem to the model.

Moreover, coefficients of external debt and external debt service appeared with negative sign and statistically significant. Thus, a unit increase in external debt and external debt service will decrease economic growth by ₦0.017913M and ₦0.035315M respectively. Also, the absolute values of the t-statistic for the slope coefficients are significant. Thus, the alternative hypotheses were accepted. The negative and significant relationship between external debt and economic growth revealed in this study is in line with the one reported by Mbah, Umunna and Agu (2016), as well as Ademola, Tajudeen and Adewumi (2018) that external debt has negative and significant impact on economic growth in Nigeria. The findings of this study suggest that the country did not invest debt from foreign sources in projects which have good potentials and prospects of accelerating economic growth. That is, foreign debt was not invested in viable projects that could stimulate economic growth. Also, external debt service serves as a leakage to the Nigerian economy because greater revenue of the country during the period of study was devoted to servicing external debt. This revenue could have been used

to invest in the various sectors of the economy to enhance economic growth.

In addition, the coefficient of exchange rate appeared with a positive sign and statistically significant. This means that a strong value of the naira in relation to dollar will increase economic growth. The R^2 of 0.999105 also revealed the good fit of the model.

Table 5: Post Estimation Test (Normality Test)

Test	Jarque-Bera stat.	p-value
Normality Test	3.658322	0.160548

Source: Authors' Computed Result from (E-views 9.0)

The outcome of the post-estimation test in Table 5 reveals that the residuals are normally distributed as the P-value 0.160548 is greater than 0.05. Thus, the normality test is very receiving as it indicates that the model is associated with a constant residual variance and normally distributed errors. Therefore, the estimated parameters are stable over time and as such can produce a reliable forecast.

V. CONCLUSION AND RECOMMENDATIONS

This paper examined the impact of external debt on economic growth in Nigeria from 1980 to 2017. The paper discovered that Nigeria's external debt dates back to 1959 and debt proceeds were not prudently used or put into productive ventures that could grow the economy and hopefully reduce poverty. More importantly, the debt was not efficiently administered leading to a situation where accumulated interest became principal. These accounted for the ugly experience whereby enormous chunks of the national budget were always used in servicing the growing debt stock before she got out of it debt trap in 2005. The analysis of this study showed that there had been a substantial increase in external debt in Nigeria since 2005. Several factors are responsible for the trend including rapid growth in public expenditures particularly capital projects and decline in oil earnings. It is clear that debt obtained on highly stringent terms and then badly managed and/or used for unproductive purposes would, undermine the growth of the Nigerian economy. Based on empirical results; the ARDL Bounds test revealed the existence of long run relationship among the variables. Moreover, the result revealed that external debt and external debt service have negative and significant relationship with economic growth in Nigeria during the period of study both in the long run and short run. However, exchange rate has positive and significant relationship with economic growth in Nigeria during the period of study both in the long run and short run. In summary, debt is an important development resource but its misuse can be disastrous as had been the Nigerian experience. Therefore, government should ensure that the terms of borrowing and the projects for which the borrowed funds are put should be those that benefit the economy and the people. Government should also ensure that debt proceeds are efficiently managed so that Nigeria can avoid a repeat of the ugly history of debt overhang.

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