

Impact of International Development Assistancess (Ida) On Economic Growth in Nigeria (1986-2016)

Utomi Felix Izuka^{1*}, Okeke Izuchukwu Chetachukwu²

¹Department of Banking and Finance, Nnamdi Azikiwe University, Awka

²Department of Economics, Nnamdi Azikiwe University, Awka

*Corresponding author: Utomi Felix Izuka Okeke

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Abstract

This study has examined the impact of International Development Association (IDA) on the Nigerian economy for the period 1986 to 2016. The study used unit root test to determine the stationary state of the variables using the Augmented Dickey-Fuller Test. It also employs the Granger causality procedure, Johansen Co-integration and Error Correction Model (ECM) statistical techniques to establish both the direction of causality, short-run and long run dynamic relationship between the dependent and independent variables. The findings indicate that official development assistance increases the rate of economic growth of Nigerian; there is a unidirectional causal relationship between economic growth and official development assistance, i.e. the changes in the official development assistance are caused by the changes in economic growth and again, there exists a long run equilibrium relationship between official development assistance and economic growth. The study submits that the use of foreign aid should be encouraged since it promotes growth. It is therefore recommended that Government should create an enabling environment needed for investment of this official development assistance, Measures should be mapped out to ensure that every investment using official development assistance should be on capital project that will have a long term benefit and the Nigerian government should put stringent measures/policies to ensure the assistances from these body is well utilized to positively enhance both human and economic growth of the country.

Keywords: International Development Association (IDA), Economic growth, Nigeria economy, official Development Assistance and Investment.

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INTRODUCTION

The benefits of foreign aid have recently been under severe scrutiny. Several observers argued that a very large portion of foreign aid flowing from developed to developing countries is wasted and only increases unproductive public spending. Poor institutional development, corruption, inefficiencies and bureaucratic failures in the developing countries: are often cited as reasons for the result [1, 2]. While there are many reasons for giving foreign aid, a major argument for such aid is that this assistance will increase the rate of economic growth in countries, which are recipient of aid. These expectations of aid-induced growth however have often been unrealistic. The explanation is that aid largely goes to consumption rather than productive activities which crowd-out domestic savings and investment. Nigeria is among the African countries that ranks low on international comparisons. The country occupies most of the bottom places in income per capita, percentage of population living in poverty, life expectancy, AIDS prevalence,

literacy, infant mortality and human development index among others. Nigeria is also a huge growth disappointment in the last four decades having the worst growth rates in the world. The west has responded to Nigeria tragedy by intensive involvement of foreign aid agencies and international organization. On the average, African countries which Nigeria is not an exception receives much more aid as percentage of its income.

The aid syndrome presents an important challenge to policy makers, because foreign aid may also generate undesirable effects such as an appreciating real exchange rate, inefficient use of resources, conditionalities and declines in export performance. These undesirable effects are commonly known as Dutch disease (a term broadly refers to the harmful consequences of large inflows of foreign currency into a country).

Nigeria which has a blend status with International Development Agency (IDA) have received assistance from the windows provided by the

Agency to fund her developmental programmes since 1970 in form of both concessional and non concessional loans.

The soft credit provided by IDA is repaid over 30 years with 10 years of grace and carries a service charge of 0.75 percent. Borrowings from the IDA (a member of the World Bank Group) increased tremendously in the early 1980s from US\$555 million in 1980 to US\$2,170 million in 1986. It, however, declined gradually in the early 2000s and moved to US\$2,454 million in 2008 [3]. There are over 32 projects in Nigeria under implementation being financed by the International Development Association (IDA) loan of US\$2,844.5 million. Total of 42 other loans and two credits valued at US\$4,686 million have been fully disbursed as at December, 2012. According to [4] report, total loan support for Nigeria's economic development Programme as at 30th December 2016 amounted to US 1.5 billion.

IDA funds are allocated to the recipient countries in relation to their income levels and record of success in managing their economies and their ongoing IDA projects. IDA's lending terms are highly concessional, meaning that IDA credits carry no or low interest charges. The lending terms are determined with reference to recipient countries' risk of debt distress, the level of GNI per capita, and creditworthiness for the International Bank for Reconstruction and Development (IBRD) borrowing. Recipients with a high risk of debt distress receive 100 percent of their financial assistance in the form of grants and those with a medium risk of debt distress receive 50 percent in the form of grants. Other recipients of which Nigeria belongs to, receive IDA credits on regular or blend and hard-terms with 38-year and 25-year maturities respectively. In fiscal year 2016 (which ended June 30, 2016), IDA commitments totaled \$16.2 billion (including IDA guarantees), of which 12 percent was provided on grant terms. New commitments in FY16 comprised 161 new operations. Since 1960, IDA has provided \$328 billion to 112 countries. Annual commitments have increased steadily and averaged about \$19 billion over the last three years.

A significant number of empirical studies on the aid-economic growth nexus such as [5-7] have sought to find out whether aid inflows in development countries achieve the core objective of promoting economic development and welfare of the people in these countries. However, results obtained from these studies differ significantly [8]. Studies at the micro-level, mainly using cost-benefit analyses, report that foreign aid is growth-enhancing. In contrast, the results presented in studies at the macro-level, using cross-country regressions are generally ambiguous. This contradiction in the aid-economic growth relationship has been termed by [9] as the "micro-macro paradox". The contradiction in the aid-growth relationship has

been attributed to several factors including poor data quality, econometric technique, model specification and more importantly relatively short data periods which adversely affect the reliability of the results [10].

Given the importance of foreign aid to the economies of developing countries, it is needful to understand its contribution to their economic growth. This study contributes to the discussion by focusing on the impact of IDA aid to the economic growth of Nigeria.

Statement of the Research Problem

Foreign aid as a subject matter of development finance has been a matter of intense debate. Does aid promote economic growth of the less developed countries? If it does, then why is it that most of these countries after long experiments with foreign aid and receiving huge amounts of it, are still to achieve a robust to high growth rate? In development theory, there has been a clear polarization of pro-aid and anti-aid arguments. The protagonists of foreign aid argue that since capital, foreign exchange and technical knowledge are major deficits of growth and development of these (underdeveloped) countries and since their internal economic structures are unable to generate these resources in the initial stage, foreign aid may prove helpful in pushing the growth rate by removing these bottlenecks. On the other hand, its antagonists argue that foreign aid does not necessarily lead to growth and development of these countries as their problems go beyond either savings or foreign exchange constraints. Moreover, in the absence of indigenous efforts, even foreign resources are not properly utilized. Interest in this questions and arguments has grown as large infusions of aid to developing countries have been recommended in recent years as a means of escaping poverty traps and promoting development [11].

Presently, IDA stands a better chance of becoming the choice of Nigeria in seeking for windows to attract soft credit/loan from international financial agencies to cushion the effect of recession she is currently undergoing. The debate about aid effectiveness is one where little is settled. It is against this backdrop that the study seeks to evaluate the impact of IDA foreign aid on Nigeria's economic growth.

Objectives of the Study

The broad objective of the study is to investigate the impact of IDA assistance on economic growth of Nigeria from 1986 to 2016. The specific objectives are stated below:

- To examine the effect of IDA assistance on economic growth in Nigeria;
- To ascertain whether there exist a long run relationship between IDA assistance and economic growth in Nigeria.

- To identify the direction of causality between IDA official flow and economic growth in Nigeria

Statement of the Hypothesis of the study

- H_{01} : Official development assistance has no significant impact on economic growth in Nigeria
- H_{02} : There is no long run linear relationship between official development assistance and economic growth in Nigeria.
- H_{03} : There is no causal relationship between official development assistance and economic growth in Nigeria.

LITERATURE REVIEW

Nigerian Economic Growth

Economic growth is the increase in the inflation-adjusted market value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP, usually in per capita terms

Nigeria's economic aspirations have remained that of altering the structure of production and consumption patterns, diversifying the economic base and reducing dependence on oil, with the aim of putting the economy on a part of sustainable, all-inclusive and non-inflationary growth. The implication of this is that while rapid growth in output, as measured by the real gross domestic product (GDP), is important, the transformation of the various sectors of the economy is even more critical. This is consistent with the growth aspirations of most developing countries, as the structure of the economy is expected to change as growth progresses.

Successive governments in Nigeria have since independence in 1960, pursued the goal of structural changes without much success. The growth dynamics have been propelled by the existence and exploitation of natural resources and primary products. Initially, the agricultural sector, driven by the demand for food and cash crops production was at the centre of the growth process, contributing 54.7 per cent to the GDP during the 1960s. The second decade of independence saw the emergence of the oil industry as the main driver of growth. Since then, the economy has mainly gyrated with the boom-burst cycles of the oil industry. Government expenditure outlays that are dependent on oil revenues have more or less dictated the pace of growth of the economy. Looking back, it is clear that the economy has not actually performed to its full potential, particularly in the face of its rising population. The Nigerian economy has grossly underperformed relative to her enormous resource endowment and her peer nations. It has the 6th largest gas reserves and the 8th largest crude oil reserves in the world. It is endowed in commercial quantities with

about 37 solid mineral types and has a population of over 197 million people. Yet economic performance has been rather weak and does not reflect these endowments. Compared with the emerging Asian countries, notably, Thailand, Malaysia, China, India and Indonesia that were far behind Nigeria in terms of GDP per capita in 1970, these countries have transformed their economies and are not only miles ahead of Nigeria, but are also major players on the global economic arena.

The major factors accounting for the relative decline of the country's economic fortunes are easily identifiable as political instability, lack of focused and visionary leadership, economic mismanagement and corruption. Prolonged period of military rule stifled economic and social progress, particularly in the three decades of 1970s to 1990s. During these years, resources were plundered, social values were debased, and unemployment rose astronomically with concomitant increase in crime rate. However, since 1999 economic growth in Nigeria has risen substantially, with annual average of 7.4 per cent in the last decade. But the growth has not been inclusive, broad-based and transformational. The implication of this trend is that economic growth in Nigeria has not resulted in the desired structural changes that would make manufacturing the engine of growth, create employment, promote technological development and induce poverty alleviation. Available data has put the national poverty level at 54.4 per cent. Similarly, there has been rising unemployment with the current level put at 19.7 per cent by the National Bureau of Statistics (NBS). The Nigerian economy is import dependent with very little non-oil exports. It relies heavily on crude oil and gas exports with other sectors trailing far behind. For example, crude oil accounts for about 90 per cent of foreign exchange earned by the country while non-oil exports account for the balance. The economy is, therefore, susceptible to shocks in the oil industry. In recent times, these shocks have been caused by either developments in the International crude oil market or the restiveness in the Niger Delta region of the country. Agriculture and other mining (besides oil and gas) have been abandoned to the rural poor. Economic and social infrastructure, especially power is grossly dilapidated. The power sector is generally recognized as a binding constraint on Nigerian economy. Poor corporate governance, both in the public and private sectors have led to high incidence of corruption and inequity in income distribution.

Although corruption is a global scourge, Nigeria appears to suffer particularly from it. Everyone appears to believe that the nation has a 'culture of corruption'. Over the years, Nigeria has earned huge sums of money from crude oil, which appears to have largely gone down the sinkhole created by corruption.

The prospects for the Nigerian Economy depend on the policies articulated for the medium-to-long term and the seriousness with which they are implemented.

INTERNATIONAL DEVELOPMENT ASSOCIATION (IDA) AND THE NIGERIAN ECONOMY

The International Development Association (IDA) is an international financial institution which offers concessional loans and grants to the world's poorest developing countries. The IDA is a member of the World Bank Group and is headquartered in Washington, D.C., United States. It was established in 1960 to complement the existing International Bank for Reconstruction and Development by lending to developing countries which suffer from the lowest gross national income, from troubled creditworthiness, or from the lowest per capita income. Together, the International Development Association and International Bank for Reconstruction and Development are collectively generally known as the World Bank, as they follow the same executive leadership and operate with the same staff.

The IDA lends to countries with the aim to finance projects that will develop infrastructure and improve education; healthcare; access to clean water

and sanitation facilities; and environmental responsibility. It is considered to be the soft lending window of the World Bank, while the IBRD is considered to be the hard lending window. The association offers grants and loans with maturities ranging from 25 to 40 years, grace periods of 5 to 10 years, and interest rates of 2.8% or 1.25% depending on whether the borrower is a blend country and to which degree it is eligible. Regular IDA-eligible borrowers may take advantage of no-interest loans. Financial resources are allocated to eligible countries based on their success at implementing pro-growth and poverty-reducing domestic policies. The IDA uses the World Bank's Country Policy and Institutional Assessment (CPIA) development indicator to determine each country's place in a resource allocation index. It then prioritizes its lending to those countries which are indicated to be most promising in terms of favorable policies and aid effectiveness. The IDA adopted the Crisis Response Window in 2007 to enable the rapid provision of emergency financing in response to crises. The association adopted the Immediate Response Mechanism in 2011 to provide IDA borrowers with immediate access to withdraw undisbursed portions of their loans, should a crisis arise that meets the mechanism's criteria.

Table-1: International Development Association Loan to Nigeria

<i>Year</i>	<i>IDA Loan/Credit (\$)</i>	<i>Growth Rate (%)</i>
1986	3,798,228.0	-
1987	11,945,811.9	214.51
1988	12,525,623.92	4.85
1989	21,611,484.48	72.53
1990	26,697,841.08	23.53
1991	33,259,714.07	24.57
1992	56,293,386.9	69.25
1993	72,932,499.93	29.55
1994	76,275,958	4.58
1995	76,403,143.2	0.16
1996	68,039,295.16	-10.94
1997	60,923,328.62	-10.45
1998	62,196,888.82	2.09
1999	241,287,651.9	287.94
2000	230702687.1	-4.38
2001	217,820,151.8	-5.58
2002	235,252,062.3	8.00
2003	256,873,595.2	9.19
2004	264,971,630.1	3.15
2005	243,990,761.4	-7.91
2006	266,872,460.6	9.37
2007	290,541,210.7	8.86
2008	290,985,717	0.15
2009	424,694,515.7	45.95
2010	556,841,660.4	31.11
2011	647404107.3	16.26
2012	738,049,410	14.00
2013	830,291,775.9	12.49
2014	916,231,911	10.35
2015	1,198,104,498	30.76
2016	788,743,420	-34.16

Source: World Debt Table, Global Development Finance, World Bank.

Theoretical Literature Review

Harrod-Domar Model

The Harrod-Domar model, asserts that output is a function of investment rate and the productivity of investment. In an open economy like Nigeria, investment is financed by savings which comprises of domestic and foreign savings. Foreign aid inflows therefore complement domestic savings to increase investment which increase steady state capital and promote economic growth [12].

Two-Gap Model of Growth

Chenery, H. B *et al.*, [13] developed the 'two gap model to explain the aid-growth nexus. The first gap which they termed 'the savings gap' is the difference between the amount of investment required to achieve a predetermined rate of growth and the available domestic savings. The second gap is the trade gap (foreign exchange gap). This gap comes about when there is a distance between import requirements for a given level of production and foreign exchange inflows. In this model, the occurrence of savings gap or trade gap in a developing country leads to a shortfall in productive investment needed to achieve a given level of output and thus foreign aid would be required to fill that gap. The 'two gap model' therefore supports the idea of investment-limited growth based on the Harrod-Domar model which assumes a specific amount of investment to increase growth.

The Three Gap Model

The 'three gap model' identifies the fiscal gap in addition to the saving- investment gap, and the trade gap. The fiscal gap is defined as the difference between government revenues and budgeted expenditures. In this model, the existence of a fiscal gap limits government efforts to stimulate private investment as a result of debt service and excessive domestic borrowing which crowds out private sector investment. In Nigeria where the public debt to GDP ratio is over 70% [14] the narrowing of the fiscal gap may result to foreign inflows in the form of budget support. In contrast, if a greater percentage of foreign aid is in the form of loans and not grants, it may have adverse effects for domestic savings, foreign exchange and fiscal gaps in the long-run and for the macroeconomic performance in general. Thus high debt service payments create excessive pressure on foreign currency and government revenue in general. Peter Hjertholm asserts that "... a loan aid inflow may fill the trade gap today, but necessitates a faster rate of export growth in the future for the country to become independent of foreign inflows' [15]. More so, high debt service payments have adverse implications on the import capacity of the government and leads to declining government investment, especially in the areas of infrastructure, education and health facilities. Limited public investments in infrastructure and social services reduce the capacity of the economy to produce and thereby lower economic growth in the long run.

Empirical Literature Review

Many studies have been conducted on the impacts of foreign aids on economic growth and other related issues. Previous empirical studies generate mixed results. Prominent among them are mentioned in this study.

Addison, T *et al.*, [16] examined trends in official aid to Africa over the period 1960 to 2002. The authors largely emphasize the tremendous decrease in aid over the last decade which will have an impact on Africans living in poverty and the African economy as a whole. As a result of the shortfall in aid, the MDGs will be much harder if not impossible to be achieved. This paper concludes that aid in fact does promote growth and reduces poverty. Furthermore, it also positively impacts public sector aggregates, contributing to higher public spending and to lower domestic borrowing. Nevertheless, it is apparent that the MGDs cannot be achieved with development aid alone, but other innovative sources of development finance need to be explored as well.

Akonor, K [17] examined foreign aid impact to Africa using theoretical and descriptive quantitative analyses revealed that aid is not a panacea for Africa's development woes. The study revealed further that foreign aid has so far created a welfare continent mentality and has become the hub around which the spokes of most African economies turn. The study also stated that dependency on foreign aid has compromised the sovereignty of African countries and that it is very unfortunate that aid has taken 50% of Sub-Saharan African countries budgets, and seventy percent of their public investment.

Alesina, A *et al.*, [18] studied the effect of corrupt governments on aid allocation for 20 developing countries. The study adopted a panel analysis and as well Tobit model for 5 year. The study revealed that there is no evidence of less corrupt countries receiving more foreign aid and the study never uncovered any weak evidence of a negative effect of corruption on received foreign aid.

Alesina, A *et al.*, [19] studied the pattern of foreign aid allocation from various donors to receiving countries. The study revealed that the direction of foreign aid is dictated by political and strategic considerations of the recipients and that colonial past and political alliances are the major determinants of foreign aid. The study used probit model to estimate the likelihood that a developing country receives aid and also adopted Tobit model to estimate the response of the aid flow to the variables.

Papanek, G [20] in his paper, studied the relationship between aid, savings, foreign investment and growth in thirty-four LDCs for the 1950s and fifty-

one LDCs for the 1960s, applying cross-country regression analysis. Treating each of these components as separate explanatory variables, he found out that over a third of GDP growth is explained by domestic savings and foreign inflows. Also the effect foreign aid has relative to other variables is considerably higher, his results also suggests no inverse relationship between aid and foreign private investment as well as showing a non-correlation between growth and factors such as; exports, education, country size or per capita income. Unlike Chenery and Strout's result which showed that Country's size and per capita income has a positive relationship with growth, Papanek's result did not show such positive relationship as said earlier. This is because Papanek's work had savings as one of the independent variables and this was seen to be significantly correlated with per capita income.

Burnside, C [21] studied the interactions among choice of macroeconomic policies and growth and revealed that aid is beneficial to countries that adopt appropriate and stable policies. However, the study revealed no evidence that foreign aid encourages the adoption of good macroeconomic policies. The study then showed that foreign aid is a waste to countries without appropriate and stable domestic policies.

According to Dacy, D. C [22] his paper viewed the subject of foreign aid and economic growth with respect to consumption on the side of the government as well as domestic savings. Contrary to other researches, Dacy in his paper viewed foreign aid as a substitute for domestic savings, saying that there would not be an increase in total savings by the full amount of foreign savings. Thus, LDCs will increase consumption as well as investment if foreign aid is made available.

Das, A *et al.*, [23] used both time series methods and panel co integration. They have reported that there is long run positive relationship between foreign aid and per capita income in Nepal, Sri Lanka, Bangladesh and Pakistan.

Ekanayake, E. M *et al.*, [24] analysed the effects of foreign aid on the economic growth of developing countries. They used annual data on a group of 85 developing countries covering Asia, Africa, and Latin America and the Caribbean for the period 1980-2007. They explore the hypothesis that foreign aid can promote growth in developing countries. They tested this hypothesis using panel data series for foreign aid, while accounting for regional differences in Asian, African, Latin American, and the Caribbean countries as well as the differences in income levels. Their results indicate that foreign aid has mixed effects on economic growth in developing countries.

Fasanya, I. O *et al.*, [25] analysed the impact of foreign aid on economic growth in Nigeria during the

period of 1970-2010. The empirical analysis rests on the neo-classical modelling analytical framework and combined several procedures in modern econometric analysis/estimation techniques. Their findings show that aid flows has significant impact on economic growth in Nigeria: domestic investment increased in response to aid flows and population growth has no significant effect on aid flows. Aid flows also provides free resources to increase domestic investment, thus confirming the aid-policy-growth hypothesis.

Griffin, K. B *et al.*, [26] suggested that foreign aid distorts domestic saving. By using the Harold model of economic growth, they showed that, the increase of foreign aid discourage domestic saving in the public sector as a results discouraging the government effort in raising the domestic tax base and revenues. They argued that, foreign donors provide aid according to their political desire in developing countries. From this point thus, foreign aid cannot guarantee economic growth in developing countries.

Hansen, H *et al.*, [27] examined the relationship between foreign aid and economic growth covering the period up to the mid-nineties. After some theoretical and empirical considerations, they concluded that a positive aid-growth relationship prevails.

Feeny, S *et al.*, [28] supported Hansen and Tarp [27] in their findings but argued that the capacity of foreign aid to accelerate economic growth depends on the absorption capacity of aid recipients. The capacity to make productive use of external resources depends on numerous factors such as the existing infrastructure, the available skilled labour and the institutional and administrative capacity of national and local governments. Excessively high amounts of foreign aid raise problems of absorption capacity and are thus counterproductive.

Taking a closer look at the problem of causality which Boone tried to address [21], concurs that the issue of causality is a tough knot to tie. He also suggests that the debate on if foreign aid contributes largely to economic growth is one that cannot be fully decided, as there would be a need to take into consideration the response of individuals as well as groups. Such consideration includes checking if these individuals or groups behave in a certain way where there is an increase in aid compared to where there is no aid.

A study by [29] investigates the correlation between foreign aid and growth in per capita GDP using annual data from the 1960 to 1997 for a sample of 71 aid-receiving developing countries. This paper concludes that the effect of foreign aid on economic growth is positive, permanent, and statistically significant. More specifically, a permanent increase in foreign aid by \$20 per person results in a permanent

increase in the growth rate of real GDP per capita by 0.16 percent. These results are obtained without considering the effects of policies.

According to Levy, V [30], his paper aimed at showing some level of quantitative evidence on the impact of foreign aid on economic growth. This he showed using a sample of 22 Low Income Countries in Sub-Saharan Africa with the exception of a few African countries which to him had their level of development similar to that of middle income countries. Using time series data for his analysis [30], found two important things; which is a positively significant relationship between aid, investment and economic growth in Africa. The second important finding is that there is a significant contribution by fixed capital formation to the rate of economic growth.

Although the exclusion of some African countries which he classified as similar to middle income countries from his analysis seems questionable, Levy's contribution to the subject matter is very significant. According to [20], most researches such as that of [30] and a few others who made an attempt to measure the impact of aid on domestic savings, investment and growth in developing countries, have had results which faced several econometric difficulties.

Burnside, C *et al.*, [31] described the poverty of people in the poorest African Countries to be on the increase despite the many years of development assistance. According to him, there has remained a stagnant or declining real per capita income since the 1960s, thus the disturbing question is "why could these countries not break the poverty trap despite receiving large inflows of foreign aid?". This question he sought to answer using the co-integration analysis for six poorest African Countries, the results from this analysis showed the existence of a long run relationship between real GDP, aid and investment as a percentage of GP and trade openness. But showing the effect of foreign aid on growth, the result indicated a long run negative relationship for most of these countries.

Model Specification

The main objective of this study is to examine the impact of international development assistance (IDA) on economic growth in Nigeria. For this purpose, the model adopted for this study is the modified [32], which is also predicated on the theoretical framework of Harrod-Domar model of impact of fiscal and monetary operations on economic growth regarding the ability of Official Development Assistance (ODA) to influence the level of economic growth in a country. Using Ordinary Least Squares [32], estimated an empirical model specified as follows:

$$GDPGR_t = \beta_0 + \beta_1 WBL_t + \beta_2 IDAG_t + \beta_3 IFCL_t + \beta_4 EXR_t + ut \dots (3.1)$$

Where,

- B1 – β4 are coefficients of parameters to be estimated.
- GDPGR_t = represents gross domestic product growth rate, and is the endogenous variable,
- WBL = World bank loan extended in form of loan to Nigeria..
- IDAG = International Development Association Grants.
- IFCL = International financial cooperation loan.
- EXR = Exchange rates
- ut = is the error term
- t = represents the time period
- β0 = the intercept term

The modified econometric model of Aguwamba, Ogbeifun, & Ekeinabor [33]. Is as follows:

$$CGDP_t = \beta_0 + \beta_1 ODA_t + \beta_2 GEXP_t + \beta_3 INTR_t + \beta_4 LP_t + \beta_5 CAP_t + \beta_6 PU_t + \mu_t \dots (3.2)$$

Where,

- β0 = Constant Intercept term
- CGDP = Gross Domestic Product per Capita
- IDA = IDA Official Flow,
- CAP = Gross fixed Capital formation,
- INTR = Interest Rate,
- GEXP = Government Expenditure,
- LP = Labour Force participation,
- PU = Political Unrest.
- μ = Stochastic error term

Estimation Technique and Procedure

The study conducted a stationarity test for each variable by employing the augmented Dickey-Fuller unit root tests to check the stationarity property of each variable in order to avoid spurious regression. A stationary time series is always stable, and its mean and covariance are constant over time, hence can be used for forecasting purposes. The general form of ADF is estimated by the following regression

$$\Delta Y_d_t = \beta_0 + \beta_1 Y_{d,t-1} + \sum \beta_i \Delta Y_{d,t} + \delta_t + \mu_t \dots (3.2)$$

Where,

- Y_{d,t} is a time series
- t is a linear time trend
- Δ is the first difference operator
- β₀ is a constant
- t-1 is optimum number of lag in the independent variables.

Data Presentation, Analysis and of results

The result of the unit root test conducted using the Augmented Dickey Fuller (ADF) tests is presented in Table-2. The series possess an intercept but no trend and the ADF test is run against the null hypothesis of non-stationarity. As a rule, once the ADF statistic is

greater than the critical value at any chosen level of significance, the null hypothesis is rejected in favour of the alternate hypothesis and this implies that the data is stationary. Table-2 shows that all the variables are stationary at first difference using the 5% level of significance except for GDP which was stationary at level form. This paper concludes that all the variables used for the analysis are stationary and cannot cause spuriousness of results obtained. A time series that is

integrated of order zero is the time series that admits moving average representation. This implies that the autocovariance is decaying to zero sufficiently and quickly. This is a necessary but a sufficient condition for a stationary process. Therefore, all stationary processes are I(0), but not all I(0) processes are stationary. A process is integrated to order one if taking a difference yields a stationary process.

Table-2: Unit Root Test

Variables	ADF Statistic	Level of Significance	T-Critical Values	Remark	Conclusion
CGDP	4.279	5%	-2.96397	I(0)	Stationary
ODA	-5.331148	5%	-2.96776	I(1)	Stationary
GEXP	-5.504516	5%	-2.971853	I(1)	Stationary
LP	-3.359905	5%	-2.96776	I(1)	Stationary
INT	-5.572957	5%	-2.96776	I(1)	Stationary
CAP	8.329270	5%	-2.998064	I(1)	Stationary
PU	Dummy		Dummy	Dummy	Stationary

The above table shows that all the variables are stationary at first difference except CGDP which was stationary at level form. The advance stage was made after the initial unit root test at level using the Augmented Dickey-Fuller test statistic compared against the Mackinnon critical values at 5%. Since most of the variables are stationary at first difference, it therefore creates a good avenue for application of cointegration test of residual's stationarity to examine whether a long run stable relationship exists among the variables so as to use the error correction model.

Test for Cointegration

The test for cointegration in appendix 1 indicates that the residual is stationary hence using the Augmented Dickey-Fuller test, we conclude that there exists a long run linear relationship among the variables in the model.

Error Correction Model

The existence of cointegration has necessitated the need for the construction of error correction mechanism so as to model the dynamic equilibrium relationship and correct short run disequilibrium. The result from the error correction model in appendix 2 shows that the coefficient of the ECM (i.e. the lagged value of the residual) is 0.287140. This means that the system corrects its previous period's disequilibrium at a speed of 28.71% annually. Moreover, the sign of the error correction coefficient (residual (-1)) is positive and not significant indicating the non-validity of the long run equilibrium relationship between economic growth and the explanatory variables as proposed by Solow growth model.

Evaluation of Research Hypothesis One

Research Hypothesis One: states that International Development Assistance does not affect economic growth. From the static regression result on Table-3, coefficient of international development assistance is statistically significantly different from zero since the t-calculated (8.109699) is greater than the t-tabulated (2.0000) at 5% level of significance. Thus, the alternate hypothesis was accepted.

Evaluation of Research Hypothesis Two

The research hypothesis two states that there is no causal relationship between International development Assistance and Economic Growth. From the result of the Granger Causality test on Table-4, it can be deduced that the F-statistic (5.34673) is greater than F-critical value (3.99). Thus, we reject the null hypothesis and conclude that economic growth causes the inflow of international development assistance.

Evaluation of Research Hypothesis Three

The research hypothesis three states that there is no long run equilibrium relationship between international development assistance and economic growth. Examination of the results as contained in appendix 1, indicates that both the trace and maximum Eigen value statistics depict there are at least one co-integrating variables in the relationship between Real Gross Domestic Product and all the independent variables. The meaning of this is that there exist a long-run relationship between International Development Assistance and the Nigerian economy.

Dependent variable: CGDP
 Method: Least Squares
 Date: 05/24/19 Time: 16:40
 Sample: 1986-2016
 Included observations: 30 after adjustments

Table-3: Shortrun Dynamic Model

Variable	Coefficient		t-statistic	Prob.
C	45641.62	373729.6	0.122125	0.9039
ODA	0.000256	3.16E-05	8.109699	0.0000
GEXP	69.34874	9.512551	7.290235	0.0000
LP	-1314.583	6699.070	-0.196234	0.8462
INT	-3.63E-06	1.19E-05	-0.305745	0.7625
CAP	4.19E-06	4.77E-06	0.877652	0.3892
PU	14630.07	11697.12	1.250741	0.2236
<i>R-squared</i>	0.991123	<i>Mean dependent var</i>	147313.1	
<i>Adjusted R-squared</i>	0.988807	<i>S.D. dependent var</i>	176209.2	
<i>S.E. of regression</i>	18642.01	<i>Akaike info criterion</i>	22.70519	
<i>Sum squared resid</i>	7.99E+09	<i>Schwarz criterion</i>	23.03213	
<i>Log likelihood</i>	-333.5778	<i>Hannan-Quinn criter.</i>	22.80978	
<i>F-statistic</i>	428.0023	<i>Durbin-Watson stat</i>	1.263718	
<i>Prob(F-statistic)</i>	0.000000			

DISCUSSION OF FINDINGS

The result above indicates that the model explained about 99% systematic variation in the dependent variable CGDP. After adjusting for degrees of freedom, the adjusted R-squared Bar coefficient of determination accounted for 98%, leaving 2% unaccounted for due to the presence of stochastic error terms. Using the individual coefficient, it can be observed that a unit change in Official Development Assistance brings about (0.000256) unit increase in the Nigerian economy, other things being equal and is statistically significant at 95% level- This finding is consistent with [24]. whose findings show that aid flows has significant impact on economic growth in Nigeria: a suggestion that the official development assistance from World Bank and the United Nations have improved the Nigeria’s economy. This may be due to the present investment in the agricultural sector of the economy, and the import-substitution policy of the government. A unit change in government expenditure (GEXP) was observed to improve the Nigerian economy under the period considered with (69.35) and is statistically significant at 95% level. This justifies the observations of [16] who in their paper concludes that aid does promote growth and reduces poverty. They Further, stated that it also positively impacts on public sector aggregates, contributing to higher public spending and to lower domestic borrowing. Similarly, a unit increase in labour productivity leads to a (-134.6) unit decrease in the growth of Nigeria’s economy, a suggestion that most able and willing to work youths are not employed due to either lack of sufficient industries to employ them or misplaced priorities on the part of government. The sign of the coefficient of interest rate is negative which conforms to a priori expectation. The coefficient of interest rate is (-3.63). This suggests that a one percentage (1%) increase in the

lending rate leads to 3% decrease in the growth of the Nigerian economy, other things being equal. Hence, the higher the lending rate, the lower the incentive to borrow money for investment purposes which reduces the GDP.

CAP coefficient is positive which conforms to a priori expectation though its not statistically significant. This suggests that provision of capital helps in the growth of the Nigeria’s economy. A unit increase in capital accumulation leads to (4.19) increase in the growth of the Nigeria’s economy.

Furthermore, the coefficient of Political Unrest (PU) is positive and does not conform to apriori expectation, and also not statistically significantly different from zero. A unit increase in political unrest leads to (14630.07) increase in GDP. This contradicts theories in social sciences. However, to some extent the above contradiction could be explained bearing mind that most donor agencies/developed countries have always come to the aid of developing countries like Nigeria when they experiences political unrest such as the Boko Haram of the North East and the Fulani Herdsmen attack on communities in Nigeria. Their activities have attracted huge sums of foreign Aids to Nigeria for the rehabilitation of displaced persons, education, reconstruction and employment of youths in Nigeria.

In the model, the coefficient of the constant is 45641.62. This shows that when other variables are held constant, the mean value of GDP will be 45641.12. The Durbin-Watson statistic value is 1.26 points out the presence of serial autocorrelation in the result is unlikely, thus making it useful for policy perspective.

Table-4: Granger Causality Result

Null Hypothesis	Obs	F-statistic	Prob
ODA does not Granger Cause CGDP	29	1.38067	0.2707
CGDP does not Granger Cause ODA		5.34673	0.0120

Since the F-statistic is greater than F-critical value, and F-statistic is less than probability value of 5% confidence interval in both model, we reject the first null hypothesis and accept the second null hypothesis, sequel to these, we conclude that there is causal relationship between international development assistance or aid and Per capita GDP in Nigeria without feedback.

CONCLUSION

The study examined the impact of official development assistance on economic growth in Nigerian and shows that official development assistance increases the rate of economic growth. In addition, it was discovered that economic growth granger causes official development assistance without feedback. Thus, the study asserts that official development assistance helps in the improving the Nigeria’s economy through provision of capital for establishment of industries, factories and small and medium scale enterprises.

RECOMMENDATIONS

The following policy recommendations are made on the basis of the findings of the study:

- Measures should be mapped out to ensure that every investment using official development assistance should be on capital project that will have a long term benefit;

- Nigerian government should put stringent measures or policies to ensure that official development assistance are well-utilized so as to positively enhance the Nigerian economy.
- The Government of Nigeria should lay down guidelines in terms of defining the purpose, duration, moratorium requirements and commitments, negotiation among others including conditions (like counterpart funding) for any state government in Nigeria wishing to partake in executing projects relating to the funding assistance from IDA.
- The government should adopt continuous monitoring of every projects been sponsored by IDA official flow, to avoid participating state government and other government agencies meddling with the fund and create delays in implementation of projects.
- Government they say is a continuous process, therefore upon assumption of office by any new government in Nigeria, it should not necessitate restructuring of any programme on which bases certain funding were approved as AID by International Development Association to the country; irrespective of whether it suit their policies and priorities or not. This is to avoid delays in releasing various tranches of an agreed loan disbursement and to meet with the time constraints projects have to take before completion.

Appendix 1

Table Test for Cointegration\

THE JOHANSEN COINTEGRATION TEST

Date: 05/28/17 Time: 17:38				
Sample (adjusted): 1988 2015				
Included observations: 28 after adjustments				
Trend assumption: Linear deterministic trend				
Series: CGDP ODA LP GEXP INT CAP PU				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.928879	190.6711	125.6154	0.0000
At most 1 *	0.706270	116.6565	95.75366	0.0009
At most 2 *	0.597195	82.35390	69.81889	0.0036
At most 3 *	0.549044	56.89339	47.85613	0.0056
At most 4 *	0.455544	34.59458	29.79707	0.0130
At most 5 *	0.350438	17.57149	15.49471	0.0240
At most 6 *	0.178067	5.490701	3.841466	0.0191
Trace test indicates 7 cointegrating eqn. (s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
At most 1	0.706270	34.30262	40.07757	0.1937
At most 2	0.597195	25.46051	33.87687	0.3546
At most 3	0.549044	22.29882	27.58434	0.2054
At most 4	0.455544	17.02309	21.13162	0.1709
At most 5	0.350438	12.08079	14.26460	0.1076
At most 6 *	0.178067	5.490701	3.841466	0.0191
Max-eigenvalue test indicates 1 cointegrating eqn.(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: E-View 7.

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