American Journal of Humanities and Social Sciences Research (AJHSSR) e-ISSN : 2378-703X Volume-3, Issue-7, pp-41-46 www.ajhssr.com Research Paper

Foreign Aid Flows and Economic Growth in Nigeria (1981 – 2016): A Bound Test Analysis

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ABSTRACT: Inefficient and poor channel of foreign aid flow in Nigeria has been the bane of growth and development in the country. Therefore, the study set out to examine the impact of foreign aid flow and economic growth in Nigeria using data spanning 1981 to 2016. The study made use of ARDL cointegration and error correction model to capture the objective of the study. The results of the study revealed positive relationship between foreign aids flows and Gross Domestic Product though the relationship is insignificant. Therefore, the study concluded that there is no effective and proper utilization of foreign aids flows in the country. The study also showed negative relationship between export, exchange rate and Gross Domestic Product which implies that export and exchange rate do not enhance growth in Nigeria during the period under review. Based on these findings, this study recommends that foreign aid flows should be used more on imports of capital goods rather than imports of consumptions goods. Moreover, government should work out holistic policy measures that will make the economy more competitive and encourage stable exchange rate which will allow both local and foreign investors to expand local productivity so as to increase exportation in order to increase Nigeria foreign exchange earnings.

KEYWORDS: Foreign aid flow, exchange rate, economic growth and ARDL Cointegration analysis

I. INTRODUCTION

Foreign aid which can be interchangeably used as international development or official development assistance is financial flows, technical assistance and commodities that are designed to promote economic development and welfare as their main objective. Foreign aid is transfer of resources from developed countries to developing countries, either through bilateral donors or multilateral donors (Obadan,2004; Iyoha, 2004). It can either be in form of grants or subsidized loan. The DAC splits foreign aid flows into three broad categories: Official development assistance (ODA) which is the largest, comprises of aid provided by donor governments to low-and middle-income countries, Official development assistance (OA) is aid provided by governments to richer countries with per capita incomes higher than approximately \$9,000 (e.g., Bahamas, Cyprus. Israel and Singapore) and to countries that were formerly part of the Soviet Union or its satellites and the third one is the private voluntary assistance which includes grants from non-government organizations, religious groups, charities, foundations, and private companies.

The global community has long considered that developing countries need a vast inflow of foreign resources in order to fill the savings and foreign exchange gaps associated with a rapid rate of capital accumulation and growth needed to prevail widespread poverty and to increase living standards(Bakare, 2011). The various form of inflow of foreign aid was welcome in developing countries to bridge the gap between savings and domestic investment in order to spur growth, Chenery and Strout(2005). Foreign aid has significant role for every national economy irrespective of its level of development. For the developing countries, it is used to boost capital accumulation and rate of investments to pave way for inclusive economic growth. Even the international community shares the view that foreign capital inflow to developing countries is necessary to engender economic development and to alleviate poverty. For instance, in the 1999, former United Nations (UN) Secretary General, Koffi Annan while delivering a speech in the World Economic forum in Davos, Switzerland proposed that state, private investors and civil society should collaborate to achieve economic development.

Nigeria is a nation which is well endowed with both human and natural resources. Due to the discovery of oil booms at Olobiriko in Delta State in year 1958, since then Nigeria has mostly relied on proceeds from the sale of crude oil at the expense of other productive sectors such as solid minerals (tin, iron ore, coal, limestone, bitumen, niobium, lead. zinc etc.), manufacturing and agriculture etc., a country that was recognised as the largest exporter of cocoa, coffee and rubber and among others. The country's over-reliance on oil amidst the

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declining state of other productive sectors of her economy has called for attentions. The huge revenue accruing from oil and misappropriation of revenue realized has made Nigerian economy a persistent mono-cultural economy. This made the economy productive capacity to run below expectation and led to inadequate savings and unfavourable terms of trade. The world investment report captures Nigeria as the top FDI destination in Africa in 2011, with \$8. 92bn, up from \$6.10bn recorded in 2010. South Africa next with \$5.81 billion while Ghana. \$3.22 billion, Congo \$2.93 billion and Algeria \$2.57 billion, UNCTAD (2011).

Despite the fact that Nigeria is the top destination of FDI, it is still very unbelievable that we could not validate and confirm where those foreign aids (capital) are being channeled because Nigeria is ascribed to inadequate infrastructural facilities, poor enabling environment, backwardness in technology, employment challenges and over-dependence on imported products amongst other factors. As the government of Nigeria is also striving hard to improve the economy, it is therefore, essential to empirically investigate the role of foreign aid with respect to the economic growth performance of the country. One of the cogent reasons for giving foreign aid, the most notable argument is to bridge the gap between domestic saving and domestic investment and therefore, to accelerate growth.

In the literature, there are inconclusive findings on the impact of foreign aid flows on the economic growth. Some studies like Fayissa and El-Kaissy (1999), Hemc and Basnet (2013) Salisu (2007), Fasanya and Onakoya (2012), Yakama (2013), Karras (2006) were of the opinion that foreign aid flows contribute positively with economic growth. While some authors like Duc (2006), Chinecherem, Ezerekwe and Uju (2015), De Mello (1999), Tiwari (2011), Arowolo, Badejo and Oshota (2015), Stella M. and Ditimi A (2014) were of the opinion that foreign aid flows contribute negatively to economic growth. Based on this contradiction in the opinions of researchers on foreign aid flows and economic growth, this raised an empirical question that does foreign aid flows promote or retard economic growth? Thus, this paper intends to answer the above question by empirically analyzing the impact of foreign aid flows on the economic growth in Nigeria.

II. EMPIRICAL LITERATURE

Salisu (2007) used panel regression model to explore aid, macroeconomic policy environment and growth in sub-Saharan Africa, using twenty Sub-Saharan African countries. His estimation was done with OLS and TSLS over a period of 1970 to 2001. The results of the study show that a sound macroeconomic environment is sine qua non for the effective contribution of aid to sustainable growth. Fasanya and Onakoya (2012) examined the impact of foreign aid on economic growth in Nigeria for the period 1970-2010, using coempirical integration techniques and the analyses rely on the neo-classical approach. Empirical finding shows that aid flows has significant impact on economic growth in Nigeria. Yakama (2013) re-examined foreign aid led growth in West Africa. The study concluded that panel co-integration results indicate a long run relationship between aid and growth in the whole panel. There is evidence of unidirectional causality from foreign aid to economic growth and from economic growth to foreign aid and there are cases where both variables are independent. Karras (2006) investigated the correlation between foreign aid and growth in per capita GDP using annual data from the 1960 to 1997 for a sample of 71 aidreceiving developing countries. This paper concludes that the effect of foreign aid on economic growth is positive, permanent and statistically significant. Gomanee, Girma, and Morrissay (2005) also used panel data to address directly the mechanisms via which aid impacts growth using sample of 25 Sub-Saharan African countries over the period 1970 to 1997. The findings reveal that foreign aid has a significant positive effect on economic growth. Gruben and McLeod (1996) employed panel VAR analysis as well as Granger causality test for identifying the links between the capital flows and growth along with savings for 18 Asian and Latin American developing countries over the period of 1971-1994. The result shows that this link exists. Adelegan (2000), made use of the Seemingly Unrelated Regression model (SUR) to examine the impact of FDI on economic growth in Nigeria and the study finds out that FDI is pro-consumption, pro-import and negatively related to gross domestic investment. Duc (2006), examined the impact of foreign aid on economic growth in developing countries over the period 1975-2000. The study employed panel data analysis using cross-country data comprising thirty-nine countries, he found evidence that foreign aid significantly and negatively correlates with growth in developing countries. Peter N Mba (2012) examines the interplay of foreign aid, external debt and economic growth in Nigeria, covering the period 1970 - 2008, using seemingly unrelated regression estimation (SURE) model and the results show that foreign aid has positive impact on growth in Nigeria. Chinercherem, Ezerekwe and Uju (2015), examined an empirical analysis of the impact of foreign aid on capital generation in Nigeria ranging from 1980-2013, using Ordinary Least Squared (OLS) technique and the results derived show that foreign aid contributed negatively to capital generation in Nigeria and the accompanying variable which was external debt also has a negative contribution to capital generation. Hemc and Basnet (2013), examined foreign aid, Domestic savings and Economic growth in South Asia, covering the period 1960 to 2008, using simultaneous equation system and the result indicates that aid has positive and significant effect on the growth rates of the five nations studied. Javid and Qayyum (2011), used Ordinary Least Square (OLS) technique to analyse the interactive effect of aid and policy sustainable economic growth in Zimbabwe from

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1990-2010, and the result shows that foreign aid and real GDP (economic growth) have a negative relationship. Arawomo, Badejo and Oshota (2015) examined the impact of foreign aid and domestic savings on economic growth in the WAMZ countries, covering the period 1980 to 2012, using panel data Analysis and the results indicate foreign aid is negatively related with economic growth. Ekwe and Inyiama (2014) analysed the impact of foreign capital flows on the growth performance of the Nigeria economy, over the period 1982-2012, using multiple regression analysis and the empirical results show that foreign capital inflows had a positive and significant effect on economic growth.

Stella M. and Ditimi A. (2014), delved into the link between foreign aid and economic growth in Nigeria, covering the period 1981 to 2012, using ordinary least square. Augmented Dickey Fuller (ADF) test, Johansen co-integration test and the result shows a negative and non-significant relationship between foreign aid to Nigeria and GDP. Saltz (1992) examined the relationship between foreign direct investment and economic growth in 68 developing countries , using panel data, covering the period 1970-1980 and the result shows that negative relationship exist between foreign direct investment and economic growth. De Mello (1999), examined the nexus between foreign direct investment and economic growth in 32 countries (15 OECD and 17 non-OECD), using panel data, covering the period 1970 -- 1990 and the empirical findings show (positive for OECD but negative effect for non-OECD). Tiwari (2011) looked into the effectiveness of foreign aid, foreign direct investment and economic growth in selected 28 Asian countries, covering the period 1998-2007, using static and dynamic panel data techniques and the result shows that inflow of foreign direct investment and foreign aid were significant factors negatively affecting economic growth. Fayissa and El-Kaissy (1999), in a study of 77 countries over sub-periods 1971-1980. 1981-1990 and 1971-1990, show that foreign aid positively affects economic growth in developing countries. This is consistent with theory of foreign aid, which asserts that overseas development assistance accelerates economic growth by supplementing domestic capital formation (Chenery and Strout, 1966). Dhakal, Upadhyava and Upadhyav (1996) conducted a causality test between foreign aid and economic growth for four Asian and four African countries and find that except for Kenya and Nepal, foreign aid is positively and significantly related to economic growth.

III. METHODOLOGY

3.1 Theoretical Framework

Two-Gap Models of development are contained in the Post-Keynesian growth models for closed economies as designed by Harrod (1939) and Domar (1946). They tried to identify the preconditions for the economic growth of market economies. These two preconditions are essentially rooted in the Nigerian economy and these are (1) internally: inadequate savings would definitely have adverse effect on investment. The GAP between these two is called saving constraints (SAVING GAP). Closing this gap requires foreign aid flows. (2) Externally:

inadequate foreign exchange arising from inability to export vis-à-vis high importation will lead to short fall in foreign exchange. The GAP between this duo is called foreign exchange constraints (TRADE GAP) which can be corrected by foreign aid. The two-gap model of growth has been adopted as a tool to bring the economy to bear on the path of growth and if possible. librate the economy.

3.2 Model Specification

This research work adopted the work of Stella M. and Ditimi A. (2014), which took its root from twogap model with modifications. The model specification considers the Gross domestic product growth rate (GDPGR) as dependent variable, while Foreign aid is proxy with Official Development Assistance (ODA), inflation rate (INF), Exchange rate (EXR), Export (EXP), Savings rate (SA), as independent variables. ARDL model is thus specified below:

GDPGR = f(INF, EXR, FA, EXP, SAV)...(1)Explicitly,

Where:

GDPGR =Gross Domestic Product Growth rate FA = Foreign aid INF= inflation rate EXR = exchange rate EXP = export SAV = savings rate α_0 and β_1 are the constant value represent the in

 α_0 and β_1 are the constant value represent the intercept for both short and long run while, $\alpha_1 - \alpha_5$ and $\beta_1 - \beta_5$ are parameter coefficients of INF, EXR, FA, EXP and SAV. μ_1 is the error term.

3.3 ARDL Error Correction Model

The ECM aims at determining the short run dynamics relationship that exists between the variables before long run relationship is established. The specification of the model in a general form of ECM is stated below;

 $\Delta GDPGR_{L} = \alpha_{0} + \alpha_{1} \Delta INFR_{t-1} + \alpha_{2} \Delta EXR_{t-1} + \alpha_{3} \Delta FA_{t-1} + \alpha_{4} \Delta EXP + \alpha_{5} \Delta SAV_{t-1} + ECM_{t-1} + \epsilon_{t}$

Where L is the lag operator

ECM_{t-1} is the Error correction term lagged by one period.

3.4 Sources of Data

The study collected annual data on Gross Domestic Product growth rate, foreign aid flows proxy with (ODA), Export (Exp), Savings rate (SA), from World bank data bank while other variables such as Exchange rate (EXR), Rate of Inflation (INF) were sourced from Central Bank of Nigeria(CBN) statistical bulletin from 1981 to 2014.

IV. RESULTS AND DISCUSSION OF FINDINGS

Unit Root Test Result Table 4.1

Variable	At Least			1 st			
				Difference			
	ADF Test	1%CV	5%CV	ADF Test	1% CV	5% CV	Level of
							Integration
GDPGR	-4.705987	-3.646342	-2.954021	N/A	N/A	N/A	I(0)
EXR	-0.076190	-3.646342	-2.95402	-5.405608	-3.653730	-2.957110	I(1)
SAV	-3.916377	-3.646342	-2.954021	N/A	N/A	N/A	I(0)
INF	-2.707566	-3.646342	-2.954021	-5.261892	-3.653730	-2.957110	I(1)
EXPOL	-2.688537	-3.646342	-2.954021	-8.505813	-3.653730	-2.957110	I(1)
ODA	-3.059729	-3.646342	-2.934024	-6.029474	3.661661	-2.960411	I(1)
-	-	-	-	-	-	-	-

From the above, ADF test shows that variables like GDPGR and SAV arc stationary at levels while other variables like EXR. INF, EXPOL and ODA are stationary at first difference. Since all variables are not stationary at the same level but stationary at levels I(0) and first different I(1). The condition for Johnsen co-integration is not met. Thus, it is better to proceed to ARDL co-integration.

Table 4.2: Lag. Length Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-98.96377	NA*	64.40379*	6.997585*	7.277824*	7.087236
1	-98.91432	0.075822	68.84341	7.060955	7.387901	7.165547
2	-98.55628	0.525122	72.17440	72.103752	7.477405	7.223287
3	-98.48993	0.072895	77.25853	7.165995	7.586354	7.300472
4	-98.29773	0.256258	82.14224	7.219584	7.686915	7.369267

* Indicates lag order selected by the criterion

LR: sequential modified LR test Statistic (each test at 5% level)

FPE: final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hanna-Quin information criterion

By iteratively increasing the lag length to where seems to be no improvement in the choice of lag length, the result in Table 4.2 was generated. The result shows that all the criteria suggest maximum of zero lags for the ARDL model.

Wald Bounds Test of percentage of co-integration in ARDL

Table 4.3 Wald Bounds Test of presence of co-integration in GDPGR based on ARDL

Equation:			
Test Statistics	Value	Df	Probability
F – Statistics	3.231736	(6, 14)	0.0330
Chi – square	19.39041	6	0.0036

Table 4.4: The Critical Lower Bound and Upper Bound of the Pesaran et al (2001)

	5%		1%	
	Lower	Upper	Lower	Upper`
Restricted intercept no trend	1.95	4.04	2.58	4.64
Unrestricted intercept no trend	2.86	4.38	3.43	4.99

From the value of our F-statistics from Pesaran et al (2001) test reported in table 4.3above, we can accept the null hypothesis of no-cointegration at 5% significance level for GDPGR in its F- statistics is 3.231736 as evidenced in table 4.3 which is lower than the upper bound critical value, therefore investigation may be based on short run analysis.

Table 4.5

ARDL Short run dynamics

Variables	Coefficient	Std. Error	t-Statistics	Prob.
D(GDPGR(-1))	0.184570	0.286627	0.643940	0.5300
D(EXR)	-0.115072	0.118305	-0.972676	0.3472
D(EXR)(-1)	-0.426931	0.179304	-2.381042	0.0320
D(SAV)	1.168893	0.555437	2.104457	0.0539
D(SAV)(-1)	0.517975	0.532657	0.972435	0.3473
D(INF)	-0.166237	0.129794	-1.280773	0.2211
D(INF)(-1)	0.103923	0.108028	0.962200	0.3524
D(EXPOL)	-0.781916	0.502220	-1.556921	0.1418
D(EXPOL)(-1)	-0.342006	0.618759	-0.552729	0.5892
D(ODA)	-2.32E-10	1.62E-09	-1.422556	0.1768
D(ODA)(-1)	5.30E-10	9.42E-10	0.5625550	0.5826
С	-0.851192	7.550078	-0.112740	0.9118
GDPGR(-1)	-1.384876	0.450413	-3.074683	0.0082
EXP (-1)	0.032018	0.048702	0.657422	0.5216
SAV (-1)	-0.217321	0.214745	-1.011993	0.3287
INF (-1)	-0.140341	0.149370	-0.939553	0.3634
EXPOL (-1)	0.509437	0.276680	1.841248	0.0869
ODA(-1)	-1.59E-09	1.45E-09	-1.095373	0.2918

 R-square
 0.784036

 Adjusted R-squared
 0.52 1793

 f-statistics
 2.989735

 prob. (F-statistic) 0.022051
 Durbin Watson Stat.

 1.927800

Table 4.4 reveals that in the short run, there is positive relationship between one lag period of saving, inflation ODA and gross domestic product growth rate and they are statistically insignificant while there is negative relationship between one lag period of exchange rate, export and gross domestic product growth rate, meanwhile lag period of exchange rate is statistically significant while export is not significant at 5% level of significance.

4.1 DISCUSSION OF THE FINDINGS

The findings revealed that all variables are not stationary at the same level. Time series variables like Gross Domestic Product at growth rate and savings are stationary at levels 1(0) while other variables like Exchange rate, inflation rate, export and official development assistance are stationary at first difference and this prompts the study to proceed to ARDL co-integration analysis since Johansen condition is not met. The study also showed that there is no long run cointegration between the variables in the sense that the value of F-Statistics from Pesaran et al (2001) is 3.231736 which is lower than the upper bound critical value which is 4.04 at 5% level of significance. Therefore the investigation may be based on short-run analysis.

The findings from the ARDL short-run dynamics revealed that there is positive relationship between one lag period of Savings, Inflation, Official Development Assistance and Gross Domestic Product growth rate while there is negative relationship between one lag period of Exchange rate, Export and Gross Domestic growth rate period. These variables in short-run, they are not statistically significant at 5% level except exchange rate that is statistically significant despite the fact that it is negative. The result that foreign aid has positive relationship with economic growth is in line with the findings of Peter (2012) Fasanya and Onakoya (2012) and Yakama (2013). The findings of Hemc and Basnet (2013) also confirmed that saving is positively linked with growth which is also in consonance with this finding.

V. CONCLUSION AND POLICY RECOMMENDATIONS

This study examined the impact of foreign aid flow and economic growth in Nigeria between 1980 and 2016. The results of the study revealed positive relationship between foreign aids flows and Gross Domestic Product though the relationship is insignificant. Therefore, the study concluded that there is no effective and proper utilization of foreign aids flows in the country. The study also showed negative relationship between export,

exchange rate and Gross Domestic Product which made the study to conclude that export and exchange rate do not enhance growth in Nigeria during the period under review. Based on these findings, this study recommends that foreign aid flows should be used more on imports of capital goods rather than imports of consumptions goods. Moreover, government should work out holistic policy measures that will make the economy more competitive and encourage stable exchange rate which will allow both local and foreign investors to expand local productivity so as to increase exportation in order to increase Nigeria foreign exchange earnings.

REFERENCES

- [1]. Adelegan (2000). "Impact of Foreign Direct Investment on Growth in Nigeria.
- [2]. Arawomo, Badejo and Oshota (2015). Examined the Impact of Foreign Aid and Domestic Savings on Economic Growth in the WAMZ Countries. *Journal of Economics and Business Research*, 21(2), 23-32...
- [3]. Chenery, H.B. and Strout. A.M. (1966), "Foreign Assistance and Economic Development" American Economic Review, 5(6), 679-733.
- [4]. Chinecherem, Ezerekwe and Uju (2015) "Impact of Foreign aid on Capital Generation in Nigeria. *International Journal of Economics, Commerce and Management*; 3(9), 40-55
- [5]. De Mello (1999) "Nexus between Foreign Direct Investment and Economic Growth in 32 Countries (15 OECD and 17 non OECD). Oxford Economic papers, 5 1(1): 133-152.
- [6]. Dhakal, Upadlyaya and Upadhyay (1996) "Causality between Foreign Aid and Economic Growth in four Asian and four African Countries. Rivista Internationale Di Science Economiche e Cominerciali, 43(2): 597-606.
- [7]. Due (2006). "Impact of Foreign Aid on Economic Growth in Developing Countries. Openstax-CNX and licensed under the creative commons Attribution licence, 2(3), 1-22.
- [8]. Ekwe and Nyiama (2014). "Impact of Foreign Capital Flows on the Growth Performance of the Nigeria Economy. *International Journal of Economics and Finance*: 6(4), 103-109.
- [9]. Fasanya and Onakoya (2012). "Impact of Foreign Aid on Economic Growth in Nigeria. *International Journal of Economics and Financial Issues*. 2 (4),423- 431.
- [10]. Fayissa and El-Kaissy (1999). Foreign Aid and Economic Growth of Developing Countries (LDCs): Further Evidence, Studies in Comparative International Development.
- [11]. Fredrick Mordi (2013). "Nigeria is top FDI Destination in Africa". African Business Magazine 20 March. 2013.
- [12]. Gomance, Girma and Morrissay (2005)."Aid and Economic Growth in Sub-saharan African. World Institute for Development Economics Research, Research paper No 2005/60
- [13]. Gruben and McLead (1998). Capital Flows and Growth along with Savings for 18 Asia and American Developing Countries. Quarterly Review of Economics and Finance, 38(3), 287-299.
- [14]. Hernc and Basnet (2013). Examined Foreign Aid, Domestic Savings and Economic Growth in South Asia. *International Business & Economic Research Journal*, 12 (11), 18-31.
- [15]. Javid and Qayyum (2011). "Interactive Effect of Aid and Policy Suitable Economic Growth in Zimbabwe. *The Authors Journal Compilation: African Development Bank*.
- [16]. Karras (2006). "Foreign Aid and Growth in Per Capita GDP in Developing Countries. *Journal of International Development* 18, (I) 15-28
- [17]. Peter N. Mba (2012). "Interplay of Foreign Aid, External Debt and Economic Growth in Nigeria. *International Journal of Economics and Finance*; 4(8); 71-85.
- [18]. Salisu (2007). "Examined Aid, Macroeconomic Policy Environment and Growth in Sub-saharan Africa". *Pakistan Journal of Applied Economics*, 20(1), 1-12.
- [19]. Saltz (1992). Foreign Direct Investment and Economic Growth in 68 Developing Countries. Rivista Internationale Di Science Econorniche e Commerciali, 39(6) 17-63.
- [20]. Stella, M. and Ditimi, A. (2014). The Link between Foreign Aid and Economic Growth in Nigeria. *International Journal of Economics Practices and Theories*, 4(6), 37-50
- [21]. Tiwari (2011). Effectiveness of Foreign Aid, Foreign Direct Investment and Economic Growth in Selected 28 Asian Countries. *Global Economy Journal*, 11(2), 1-28.
- [22]. Yakama (2013). 'Effect of Foreign Aid on Growth in West Africa. Working Papers in Management Birkbeck, Department of Management BWPMA 1303.

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