



FOREIGN AID AND POVERTY REDUCTION IN NIGERIA: AN EMPIRICAL ANALYSIS

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Abstract

Foreign aid argument domestic resources required for economic development and growth in less developed countries (LDCs). Foreign aids have assisted a number of economic recuperation, reconstruction efforts and structural adjustment programs organized to pull the Africa economy out of poverty trap. Discussions of foreign aid have concentrated on Africa since it has gotten the best measure of help on per capita premise than some other area; yet poverty and economic performance has been the weakest. In spite of its abundant oil assets Nigeria's economic performance has been frightening poor, per capita income has endured significant erosion since the crest in the mid-1980s that happened when oil prices were at verifiable abnormal states. Again being the biggest developing economy in Sub Saharan African region, the nation still stays among the most unfortunate of the sub Saharan African nations with the least human development index (HDI). Given that foreign aid may advance economic improvement and poverty reduction, it is appropriate to ask whether or not and to what degree should Nigeria keep on depending on foreign aid to accomplish economic growth and reduce poverty, given its negative impacts and the potential for intense cut back in foreign aid. The objective of the paper is to examine empirically the connection between foreign aid and poverty reduction in Nigeria. The paper utilizes time series secondary data from World Development Indicators (WDI) covering over Nigeria for the period from 1986 to 2017 which data were accessible. The methodology employed includes descriptive statistics and the Ordinary Least Square (OLS). The results reveal that there is a positive relationship between foreign aid and poverty reduction. The paper submits that the use of foreign aid should be encouraged since it promotes poverty reduction. Consequently, the international community should step up their aid assistance to developing countries by meeting their promises to increase aid flow as agreed.

Keywords: Foreign Aid, Poverty Reduction, OLS

1. Introduction

A definitive goal of economic development is to wipe out poverty and raise the equilibrium position in the stationary states (LDCs) by addressing the other problems relating to human development such as education, per capita income, life expectancy, income inequality and underdevelopment. Notwithstanding the fact that severable hypotheses of economic growth for example, the Solow Growth model and the Harro-Dormar development model have been propounded in the literature, these models as significant and enlightening as they have neglected to convert into progress in the standard of life of the general population. Poverty still remains the most basic issue defying the present reality on account of its prevalence in both developed and developing nations. Figures on poverty from the World Development Indicators Report



(2015) reveal that more than 1 billion individuals live on under US\$1 every day at purchasing power parity (PPP) while over 2.6 billion individuals live on under US\$2 every day at PPP.

One reason why poverty remains a pervasiveness issue is its self-supporting nature as proved by the vicious circle of poverty in which low income means low saving, low investment, low capital accumulation, low productivity and back to low income. With the goal for nations to develop, they should break free from this endless loop. Another test with poverty is that it is showed in a few socio-economic issues, for example, poor education, scoundrel hope, low per capita income, high income imbalance and high joblessness.

Foreign aid supplement internal assets required for investment, economic growth and development and advancement in less developed nations (LDCs). Since the most recent two decades, of the 21st century foreign aid inflows have upheld a number of economic recuperation, reproduction efforts and basic structural adjustment programs organized to pull the African economy out of a lofty decrease (Adam, 2008). The aid syndrome introduces a significant test to policy makers in light of the fact that foreign aid may likewise present or create unfortunate impacts which are usually known as Dutch Disease (a term which comprehensively alludes to the destructive results of huge inflows of foreign currency into a nation) in macroeconomics literature.

Dialogs of foreign aid have concentrated on Africa since it has gotten the best measure of help on per capita premise than some other regions; yet economic progress and poverty has been the weakest (Iyoha, 2004). The poor progress in economic performance has been related with terrible administration, official defilement and macroeconomic instability in the region. In spite of its abundant oil assets Nigeria's economic performance has been startlingly poor. Per capita income has endured significant disintegration since the crest in the mid-1980s that happened when oil prices were at chronicled abnormal rates (Adam and Obansa, 2010).

The objective of this paper is to analyze the connection between foreign aid and poverty reduction in Nigeria. The paper utilizes time series secondary data covering a period of 1986 to 2017 from the world development indicators of the World Bank and the National Bureau of Statistics. The paper is structured into five segments. The first segment is the introduction to the study, which introduces a general review of the paper. The second segment is the theoretical framework and Empirical review; the third segment is the methodology and model specification. The fourth segment is the data and interpretation of results and last segment concludes the paper, presents recommendations.

2. Literature Review

Theoretical Framework

The Harrod-Domar model which is regarded as a theoretical workhorse of the popular gap theories, assumed that poor countries fail to climb the economic ladder because of extensive gaps in savings-investments rates (S-I), hence foreign-capital or aid is indispensable (Bowen, 1998). The popularity of this model heightened due to success of the Marshal Plan. The two gap model built on the works of Dormar (1939), Harrod (1946, 1947), and Chenery and Strout (1966) is a relevant theory for this study. Two-gap model is premised on the fact that foreign aid fills the gap that arises when investment is small to stimulate economic growth. Most literature



consulted for this study recognizes the fact that foreign aid inflow influence development through their effect on investment (Gomanee et al, 2002). As indicated by Bulio and Lane (2002), poor nations need adequate assets to fund development and imports capital products just as innovation.

The Gap Model advanced by Chenery and Strout (1966) a very long time back is still being used in anticipating the macroeconomic effect of foreign aid. This model has two parts consequently it is likewise regularly alluded to as the Two-Gap Model. The principal segment is the relationship between investment and development, wherein the dimension of development is thought to be subject to the level of investment. The second segment is the relationship between savings, which is expected as a basic factor for investment development, and growth.

With this model, experts can decide the fundamental dimension of investment to accomplish an ideal level of economic development. Gaps occur if the investment is below the ideal dimension and these gaps can be attributed as either a saving gap or as a foreign trade (or exchange) gap. In the event that a nation is unfit to fill this gap through imports, exports or production, foreign aid inflows are required with the goal that it can develop more quickly than its domestic assets would some way or another permit. Henceforth an inflow of foreign aid should move a nation's economy upwards.

Empirical Review

Here, we review studies that focus on this subject and their potential results. In a panel study, Ekanayake and Chatrna (2010) analyzed the effects of foreign aid on economic growth of 85 developing countries covering Asia, Africa, Latin America, and the Caribbean. Results showed that foreign aid tend to have adverse effect on economic growth in Asia, Latin America, and Caribbean while it has a positive impact on developing countries in Africa. Margaret (2008) found out that foreign aid disbursed to government with sound reform will likely contribute toward the fight against corruption thereby stimulating economic growth.

Adam(2010) in his study the relationship that exist between foreign aid and selected macroeconomic variables in Nigeria, the study submits that the use of foreign aid should be encouraged since it promotes investment which leads to economic growth and poverty reduction and it is not inflationary. As a result, international community should set up their aid assistance to developing countries by meeting their pledges to increase aid flow. Elizabeth (2014) examined the impact of foreign aid in education on economic growth in 38 Sub-Saharan countries over the periods 1990 to 2004. Findings revealed that aid in primary education has a positive and significant effect on growth while aid in secondary education has negative effect on economic growth in these countries.

On the other hand, Fasanya and Onakoya (2012), using error correction model for the period 1970 to 2010 established a positive and significant relationship between foreign aid and economic growth in Nigeria. Similarly, Zeshan (2014) examined the relative effectiveness of foreign aid on economic growth in Pakistan using ordinary regression model and cointegration technique. The result shows that there is a positive long run relationship between foreign aid and economic growth in Pakistan but there exist no relationship in the short run. The effectiveness of aid in 34 sub-Saharan African countries for the period 1990 to 2010 was studied by Douzounet and Yogo (2013). Their result suggested that aid have a positive effect on growth



when governance is incorporated in the model but if governance is not incorporated, aid has a negative impact on growth. In similar vein, Arvind (2015) use an instrumental variable approach established a strong positive relationship between aid percapita and economic growth in developing countries both in the short run and long run. Specifically, an additional per capita aid causes growth rate in recipient country to increase by 8% over four years and 5% over a decade.

The long-run influence of foreign aid (ODA) on key macroeconomic in 36 sub-Saharan African countries was of interest to Katarina, Niels and Finn(2012) who applied the cointegrated VAR model. Their finding was generally positive same as Yakama's (2013) use of panel cointegration estimation technique established a long run relationship between aid and growth in West Africa. Specifically, there is a significant and positive effect on investment or real gross domestic product in 27 countries out of the 36 Sub Saharan Africa countries sampled in the study. In seven of the remaining countries, the effect of aid is positive but insignificant while there is significantly negative effect on only two countries – Comoros and Ghana. Ramesh, Norman and David (2010) assessed the effectiveness of aid at the micro- and macro-level in selected developing countries using an augmented Fisher-Easterly model. Their result supports the reoccurring view of a positive relationship between aid and growth provides the macroeconomic policy environment is stable which corroborate the findings of Easterly (2003) who established a positive nexus between aid and economic growth in economy with consistent macroeconomic policy and political stability.

Neutral impact was reported by Bashir (2013) who analyzed the influence of ODA and foreign direct investment on real growth in Nigeria using error correction model for the periods 1980 to 2011. Similar result was reported among the low-income countries by Ayadi and Ayadi (2008) who used the Arellano-Bond dynamic panel estimation to analyze the impact of Aid on economic growth in 34 low-income Sub-Saharan Africa countries over the period of 15 years (1990 to 2004). Amakom *et al* (2010) considered the role of improved economic governance in determining the effectiveness of foreign aid for generating economic growth in Nigeria. Employing the coefficient of determination, the paper tested the degree of effectiveness of ODA to the variables (economic governance indicators) and found mixed results. While ODA was effective for some variables like exchange rate and interest, it was less effective for boosting economic growth and making poverty a history in Nigeria because of its volume. Bakare (2011) examined the macroeconomic impact of foreign aid in Sub-Sahara Africa using Nigeria as a case study. He employed Vector Autoregressive Model, (VAR) to determine the sources of shock to growth in Nigeria and treated foreign aid as an endogenous variable. The study found a negative relationship between foreign aid and output growth, which imply that foreign aid tend to worsen output growth in Nigeria rather than improving it. Distorted results may arise because such studies failed to account for policy space and political stability in the country of study. Also, aid may not be geared towards growth at least in the short run thus necessitating a robust study of the effect of aid. Also, using static model to estimate the relationship may distort the findings of the study especially when the economy is vulnerable to external shock. These possible failings, a robust estimation technique may be needed. Before discussing the estimation methodology, it is appropriate to present the theoretical underpinning of the research. This is presented in the next section.



3. Methodology

The study relies on annual data sourced from World Development Indicators (WDI) and Central Bank of Nigeria (CBN) Statistical Bulletin mulling over Nigeria for the period from 1986 to 2017 which data were accessible. The empirical model for the study is based on the neo classical growth model, which expresses a relationship between growth (Y) as depending on capital (K) and Labour (L). For the purpose of this study, an adapted version is specified as:

$$PHC = f (For Aid, Gdp, Inf, Gce) \dots \dots \dots 1$$

Where Phcis the ratio of the percentage of the population living on the less than \$1.9 per day at PPP (purchasing Power parity); Inf denotes the rate of price change in the economy; Gceis the annual percentage growth rate of the general government final consumption expenditure. For Aid is concessional loans in the form of aid commonly referred to as official development assistance (ODA) which captures total foreign aid received by Nigeria. GDP is per capita growth which is measured as the percentage growth of per capita income from one year to another.

The model seeks to investigate the impact of foreign assistance on the poverty reduction rate of the economy. Specifically, the model seeks to find out if external aids have sufficiently influenced growth suggestive of its adequacy in filling the huge financing gap in the period of study.

Restating the model in an econometric form equation (4) is expressed as:

$$\Delta PHC_t = \beta_0 + \beta_1 ForAid_t + \beta_2 Gdp_t + \beta_3 Inf_t + \beta_4 Gce_t + \varepsilon_t \dots \dots \dots 2$$

Where ε_t represents the error term.

4. Result

Unit Root Test

Time series data normally exhibit non-stationary behaviour in their level if not purged of their unit root propensities will generally presents a potential threat for any econometric examination consequently prompting fake results. The significance of this is drives from the fact that estimation within the presence of non-stationarity in variables normally leads to conflicting inference of the standard error of the coefficients and this could prompt deceiving deduction if

Table 1: Unit Root Test Result

Series	10% Critical Value	ADF at First Difference (Prob.)	Equation Specification	Order of Integration
GDP	-2.62	-6.56 (0.00)	Intercept	I(1)
ForeignAid	-2.62	-5.20 (0.00)	Intercept	I(1)
Poverty Head count	-2.62	-6.60 (0.00)	Intercept	I(1)
Inflation	-2.62	-2.90(0.06)	Intercept	I(1)
Gross Con Exp	-2.62	-6.35 (0.00)	Intercept	I(1)

Source: Authors computation using E-Views 8.1 (2019)

proper procedure isn't used to conquer the issue. The unit root tests are carried out using the Augmented Dickey-Fuller (ADF). The results of the unit root tests are displayed in table 1.



The results in Table 1 show that all the variables are stationary at first difference since their respective absolute test statistic values are greater than the critical values at 10% significance level.

Table 2: Estimates of Test Results

Regressor	Coefficient	t- value
Constant	90.01510	4.978642
GCF	0.821391	2.884395
PHC	1.435755	-3.118639
INF	0.267222	0.350392
GCE	0.122929	0.179374
<i>Summary Statistics</i>		
R ²	0.570856	
Adj R ²	0.427808	
Dw statistics	0.939454	
F-Statistics	0.010269	

Source: Authors' computation

The outcome above demonstrates a high value for the constant at 90.02 when the various variables are equivalent to zero. A one per cent change in gross capital formation prompts a 0.82 percent change in real gross domestic product in the same direction. A one per cent change in foreign aid ration prompts a 1.44 per cent change in foreign aid in the opposite direction. A one per cent change in gross national product leads a to 3.13 per cent change in poverty head count in the same direction. A one per cent change in GDP per capita growth leads to a 2.19 per cent change in poverty head count in the same direction. A one per cent change in inflation rate leads to a 0.27 per cent change in foreign aid in the same direction while a 1 per cent change in growth in government expenditure leads to a 0.12 per cent change in foreign aid.

The R-square is 0.57, which implies 57 per cent of the poverty can be explained by gross capital formation, foreign aid, gross national product, GDP per capita growth, inflation rate and growth of government expenditure. The Durbin Watson statistic of 0.939 shows the presence of high positive autocorrelation. This autocorrelation may be as a result of the inclusion of economic growth in the model or the omission of some variables such as unemployment rate which is a common motivational factor for poverty reduction rate. Among all the variables, only gross capital formation and foreign aid are statistically significant in determining poverty reduction in Nigeria.

5. Conclusion and Recommendation

The study has brought to the fore certain issues which are significant and require important strategy activity in the battle against poverty. To begin with, it is significant for the legislature to take part in successful steady key economic development so as to accomplish poverty reduction. This means the legislature should utilize short, medium and long run economic development strategies designs so as to battle poverty. The short and medium terms programs ought to be very much enunciated to keep them in accordance with the long run plan. The programs must be compelling in that they ought to be explicit, have quantifiable advancement



and be opportune, all together words; it ought to have the option to meet explicit focus inside a given timeframe.

Second, gross capita formation and poverty headcount moves in a similar way and this implies an expansion in gross capital formation would prompts an expansion in poverty headcount proportion. This, however, should not demoralize the government from taking part in gross capital formation. Rather, it demonstrates that past efforts at capital formation have been misled; that is, they generally affect the rich which exacerbated the issue of income disparity and intensifies as opposed to improve the issue of poverty. Along these lines, the government needs to search for better approaches to channel its capital towards the poor by building infrastructure in rural areas to create employment and by concentrating all the more seriously on advancement of human capital through progress in education and wellbeing, particularly in rural areas.

Gross domestic product per capita growth is slanted against poverty headcount proportion and some of the time intensifies the poverty circumstance in view of income disparity. As GDP per capita is expanding, it doesn't get too the poor masses, however remains in the hands of the rich and may in the end be lost due to capital flight which is normal in the nation, yet greater part of the general population suffers from wretched poverty. The government needs to address the issue of income disparity to guarantee that GDP per capita growth streams down to the majority. It can do this by suitably changing the size and functional distributions of income.

Inflation is a noteworthy issue confronting poverty individuals who are for the most part fixed breadwinners and low salary workers as it disintegrates their purchasing power and makes them increasingly unfit to live easily. The most significant inflationary weights influencing the poverty individuals are nourishment and energy on the grounds that those are fundamental necessities of life for everyone. The government needs to control inflation in its offer to eliminate poverty.

Government expenditure additionally exacerbates the poverty circumstance. This can be ascribes to the way that government expenditure has been inadequate in tending to poverty. The government is spending more on the military and on security to the impairment of the general population. What's more, because of the issue of corruption which is widespread, reserves which have been diverted into development don't get the chance to contact the general population for which they were expected. There is a need, in this manner, for government to concentrate more on spending to improve the living states of the majority since this would go far in controlling interior emergencies. The government should likewise battle corruption and guarantee that cash spent is all around represented and that economic improvement is accomplished and poverty is diminished.

In conclusion, the government desperately needs to overhaul plans on gross capital formation, population growth, GDP per capita growth, inflation and government expenditure growth plans and correct them appropriately in order to reduce to the barest minimum the high rate of poverty in the country.

The examination has demonstrated that foreign aid is positively related to economic development and poverty reduction. This implies foreign aid promotes economic development and poverty elimination. The government has a major task to carry out in the battle against



poverty and its efforts at predictable strategic economic development are significant in poverty reduction by spending the aid money for direct production programs. The government which is main recipient of aid should also implement policies that will offset the tendency of foreign aid to generate employment opportunities.

It is profoundly significant for further research to be done on this field since literature on the empirical relationship between foreign aid and growth with unique spotlight on poverty reduction is sparse. This investigation confronted a noteworthy test in absence of sufficient information particularly on poverty and on imbalance and joblessness. Therefore, those two factors couldn't be incorporated into the examination. Besides, the investigation would be better completed by utilizing a general harmony model which would consolidate more variables and give a progressively point by point examination with regards with the relationships of anticipating the different sectors of the economy and poverty decrease.

References

- Adam, A. J (2008), International Perspectives on Aid Coordination in Developing Countries. The Ecosight Magazine, NESAPublication, 4th Edition, University of Abuja.
- Adam & Obansa (2010), Nigeria's macroeconomics development: Issues and challenges. Richard & Partners, First Published, 2010. Abuja, Nigeria.
- Amakon U., Ezema B. & Okeke N. (2010). Has Foreign Aid Improved Economic Governance in Nigeria? An Inquiry into Official Development Assistance Effectiveness. *Journal of Economic Studies* 9(1)
- Anyanwu, J., A. Oyefusi, H. Oaikhenana, & Dimowo. F. A. (1997). The Structure of the Nigerian Economy (1960 – 1997). Ibadan: Joanee Educational Publishers Limited.
- Arvind, M. (2015). Foreign aid and economic growth in developing countries: an instrumental variables approach, Department of Economics University of Calgary 2500 University Drive Calgary, Alberta T2N-1N7 Canada
- Ayadi, F. S & Ayadi, F. O (2008). The impact of external debt on economic growth: A comparative study of Nigeria and South Africa. *Journal of Sustainable Development in Africa*, 10 (3)
- Bakare, A. S. (2011). The Macroeconomic Impact of Foreign Aid in Sub-Saharan Africa: The Case of Nigeria, *Business and Management Review*. 1(5)
- Bakare A. S. (2010). The Determinants of Urban Unemployment Crisis in Nigeria: An Econometric Analysis. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* 2 (3)
- Bashir, O. K (2013). Foreign assistance and economic growth in Nigeria: The two gap model framework, *American International Journal of Contemporary Research*, 3(10)
- Bello, M. A. and Abdul, H. R. (2010). Has Poverty Reduced in Nigeria 20 Years After?. *European Journal of Social Sciences* 15(1)
- Bulio A. & Lane, T. (2002). Aid and Fiscal Management. IMF working Paper WP/02/112, Washington DC
- Business Day (2010). Aid inflow to developing countries. Business day newspaper, November 12.
- Chenery, H. B & Strout, A. M. (1966). Foreign assistance and economic development, *American Economic Review*, 56.



- Dollar B (1998) Aid, the incentive regime and poverty reduction. Policy Research Working Paper. Washington D.C The World Bank.
- Douzounet, M & Yogo, U. T. (2013). Heterogeneity of the effects of aid on economic growth in sub-saharan Africa: Comparative evidence from stable and post-conflict countries. African Development Bank Group.
- Easterly, W. (2003), Can Foreign Aid Buy Growth? *Journal of Economic Perspectives* Vol. 17(3)
- Ekanayake E. M. & Chatrna D. (2010). The Effect of Foreign Aid on Economic Growth in Developing Countries, *Journal of International Business and Cultural Studies*.
- Elizabeth, A. (2014). Does foreign aid in education promote economic growth? Evidence from sub-saharan Africa, *Journal of African Development*, 16(1)
- Fasanya, I. O. & Onakoya, A. B. (2012). Does Foreign Aid Accelerate Economic Growth? An Empirical Analysis for Nigeria, *International Journal of Economics and Financial Issues* 2(4)
- Fosu, A. S (2011). Growth, inequality and poverty reduction in developing countries. UNU-WIDER Working Paper No. 2011/01.
- Gomanee, K. S. (2002). Aid and growth in Sub-Saharan Africa: Accounting for transmission mechanisms. Credit Research Paper, University of Nottingham, England.
- Pallage, S & Robe, M. (2001). Foreign aid and the business cycle, *Review of International Economics* 9 (4).
- Ramesh, D., Norman, G. & David, G. (2010). New evidence on the impact of foreign aid on economic growth. Centre for Research in Economic Development and International Trade, University of Nottingham
- The World Bank: World Development Indicators 2015. Washington, D.C: The World Bank.
- Todaro, M. P. & Smith, S. C. (2009). *Economic Development* (Tenth Edition). New Jersey: Pearson Education Limited.
- Yakama, M. J. (2013). Testing the foreign aid led growth hypothesis in West Africa, *Department of Management Birkbeck, University of London Working Paper BWPMA*.