IMPACT OF FOREIGN AID ON CAPITAL GENERATION IN NIGERIA

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Abstract
This study sought to carry out an empirical analysis of the impact of foreign aid on capital generation in Nigeria ranging from 1980-2013. Linear regression was adopted in the method with the application of Ordinary Least Squares (OLS) technique. The results derived showed 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. The coefficient of determination \( R^2 \), which yielded 46% entails that the contributions of foreign aid and external debt to changes in capital generation are not significant. This paper therefore recommends that Nigeria should grossly avoid accepting aid from developed nations as it depreciates the economy and expose the country’s economy to external control, manipulation and imposition of unpalatable economic policies that cannot augur well with internal revenue generation and economic sustainability.

Keywords: Foreign aid, Capital Generation, Nigeria, Sustainability, Dependency, Manipulation, Unemployment
INTRODUCTION

The term, “foreign aid” implies a number of varied activities, ranging from humanitarian support in the wake of natural disasters to military assistance and arms donations. It is a voluntary transfer of resources from one country to another. It may serve one or more functions such as being a signal of diplomatic approval or strengthening a military ally or rewarding a government for behaviour desired by the donor or extending the donors cultural influence or providing infrastructure needed by the donor for resources extraction from the recipient country or gaining other kinds of commercial access. Hence, the role of foreign aid in the growth process of developing countries has been a topic of intense debate. The relevance of foreign aid cannot be understated given its implications for poverty reduction in developing countries.

On the other hand, the term, “capital generation” entails variables that foster the postmen of present consumption for future gains in an economy, like investments, savings and gross fixed capital generation. Simply put, it refers to increasing a country's stock of real capital that is, increasing the net investment in form of fixed assets. It can also be referred to as any method for increasing the amount of capital under one's control; any method in utilizing or mobilizing capital resources for investment purposes. Such methods can either be savings drive, setting up financial institutions, fiscal measures, public borrowing, development of capital markets, privatization of financial institutions and development of secondary markets.

Besides, the concept of foreign aid or official development assistance (ODA) it took root in the charter of the United Nations adopted during the conference in San Francisco in June 26th 1945. Member-nations were committed to promote social progress and better standard of life in larger freedom, and to employ international machinery for the promotion of the economic and social advancements of all people. Rebuilding the world economy destroyed by the Second World War and promoting economic development worldwide were the main concerns of the world leaders. In this respect, the first aid was provided by the United States to its European allies through the Marshall plan (Chenrey and Strout, 1996).

Following the foregoing, it is pertinent to note that an overall assessment of the economic performance of sub-Saharan Africa, and of Nigeria in particular, has not been impressive. This is not unconnected with the perceived gross dependence on foreign aid or assistance. The socioeconomic conditions of sub-Saharan Africa (SSA) deteriorated sharply during the 1980s; a decade that is widely regarded as Africa’s "lost decade" of development opportunities. In fact, available empirical evidence shows that in sub-Saharan Africa (SSA), per capita income (measured by gross national product per person) declined at an average annual rate of 2.2%. Per capita private consumption fell by 14.8%; export volume was stagnant while import volume plummeted at an average annual rate of 4.3%; and the terms of trade fell by
9.1%. Given the region’s high population growth rate, however, the average annual growth rate of real GDP per capita between 1981 and 1990 was -0.9%. Among all the regions constituting developing countries, sub-Saharan Africa’s performance was the poorest, with the exception of the Middle East and North African region.

Be that as it may, of particular concern to this study is not the economic performance of sub-Saharan Africa (SSA) per se but that of Nigeria, which as suspected has been worsened by the inflow of foreign aid.

Specifically, the inflow of foreign aid to Nigeria has in no doubt, merits and demerits. This notwithstanding, it has been observed that there is a gross dependency on foreign aid, which does not place the Nigerian economy, capital generation in particular, on a good stead.

Against this backdrop, this study attempts an empirical analysis of the impact of foreign aid on capital formation in Nigeria covering the period 1980-2013 with the view to estimating the impact of foreign aid on gross fixed capital generation in Nigeria and analyzing the relationship between foreign aid and gross fixed capital generation in Nigeria.

Statement of the Problem
Over the years in Nigeria, there have been huge and significant inflows of foreign aid into the economy, which have brought about gross dependency on foreign aid. Although the inflow of foreign aid is considered as an augmentation to any recipient, but it is believed that its consequences most times exceed its benefits. The situation is such that the economy of Nigeria does not maximize its productive capacities and thus, operates at a level below maximum potentials. What is mindboggling is that foreign aid sent to aid Nigerians has not really reduced most of the problems that have been confronting the country for ages. The dependence of Nigeria for foreign aid inflow has in a long way diluted the quest of the economy to develop its capacity as its government does not make efforts to develop its internal utilization of its human and non-human resources. As a consequence to this, the unemployment rate has remained an unresolved macroeconomic problem in Nigeria. The unemployment trend has not been encouraging as the youths and government depend on the foreign aid inflow. For instance, according to the IMF report, the unemployment rate in Nigeria was 13.1% in 2000, increased to 13.6% in 2001, further increased to 14.8% in 2003 and on the average increased to 23.9% in 2013 and so on. This can be attributed to be in response to the increasing inflow of foreign aid into the economy. From IMF world economic outlook 2014, the trend of unemployment in Nigeria is displayed graphically thus:
Where, on the y-axis represents the percent of total labour force while on the x-axis represents the years under review. The graph reveals that unemployment, on the average, is high even with the trending increase in foreign aid into the economy of Nigeria.

Apart from the issue of unemployment, paradoxically, one can come to the conclusion that foreign aid is dialectic of ambivalence which consists of highly mixed results of problems and success simultaneously. According to some scholars like Dambisa (2005) and Stevenson (2006) foreign aid benefits the donor countries more than it benefits the recipients, as most of the aid received by less developing countries, is “tied aid”. In this tied aid the donor nation benefits economically from that same aid at the expense of the recipient country. The typical example is when the receiving country is compelled to buy goods and services, adhere to the de-human bills from the donor country as a pre – requisite for getting assistance and further aid. In building a dam for example, some of the donor countries insist that their companies, experts and equipment be utilized. Thus these aids highlight the hegemonic dominance of the donor countries over the poor recipient countries.

Another good example is the Nigerian experience in October 2011, and which reiterated in June 2013, when the British Government threatened to cut their aid to Nigeria if Nigerian government does not stop the ‘Same Sex bill’ which was passed into Nigerian law. This was supported by the Canadian government, through its Foreign Affairs Minister, John Baird (The Nigerian Punch Newspaper, June 15, 2013). By the time it was passed into law in January, 2014, they were joined by the United States and EU member countries who threatened to sanction the Nigerian government (Nigerian Vanguard Newspaper of January 21, 2014 by
Ndiribe Okey et al). This goes to show the ability and power which DCs have over less developed countries due to the so called foreign aid.

Hence, these countries that extend aid to Nigeria for instance, end up controlling our economic affairs and interrupt policies that do not favour them. This being the case, there is the need to ascertain if these inflows enhance the level of capital formation, which is the catalyst of economic growth and development. Some scholars notwithstanding, have argued that foreign aid enhances economic growth through capital generation (Agbile, 2011), while some others like (Okpara, 2012) posit that inflow of foreign aid deteriorates economic power of a developing economy like Nigeria. A study such as this is therefore motivated to draw an empirical finding on the relationship and impact of foreign aid on capital generation in Nigeria.

THEORETICAL REVIEW
The Dependency Theory of Underdevelopment
The dependency theory states that the dependency of less developed countries (LDCs) on developed countries (DCs) is the main cause for the underdevelopment of the former. This theory of underdevelopment originated in the writings of a few Latin American Economists. The prominent among them are Frank, Sunkel, Furtardo, Santos, Emmanuel and Amin (Frank, A.G. 1976). The explanation given by the various writers differ in degree only. Each tries to pinpoint and specify certain factors which have been responsible for the underdevelopment of LDCs by DCs. So there is a plurality of dependency views; different meaning accorded the concept of dependency and different analyses are offered to explain underdevelopment as a result of the interplay between internal and external structures. As there are varieties of dependency theory, hence we shall briefly discuss the one that best suites this work.

According to Dos Santos, (1964), Frank, (1976), and Sunkel ((1969), dependency is a situation in which the economy of certain countries is conditioned by the development and expansion of another economy to which the former is subjected. Further, it is a dependent relationship between two or more economies is one which some countries (the dominant ones) can expand and be self-sustaining, while other countries (the dependent ones) can do this only as a reflection of that expansion, which can have either a positive or a negative effect on their immediate development.

For them, the peripheral LDCs are heavily dependent on the centre for foreign capital, and foreign capital leads to “external orientation” of LDCs by exporting primary commodities, importing manufactures and making them dependent for industrialization of their economies. This they said brings in stagnation of agriculture, high concentration of primary commodities for exports, high foreign exchange content of industrialization and growing fiscal deficit in the
peripheral countries which necessitate foreign financing of them. It has also led to a metropolisatellite chain in which the surplus generated at each level in the periphery is successfully drawn off the centre because the foreign investors exploit LDCs by insisting on the choice of projects, making decisions on pricing, supply of equipments, knowhow and personnel. As a result, the periphery is impoverished and the centre is enriched. Hence the development of the underdevelopment of LDCs may be viewed as leading to *immiseration* i.e. the growing poverty of the mass of the population in the periphery. In Sunkel’s words, it is this aspect that finally sums up the situation of dependence; this is the crucial point in the mechanism of dependency while Todaro (1994) calls it the *neo-classical dependency model* which attributes the existence and continuance of third world underdevelopment primarily to the historical evolution of a highly unequal international capitalist system of rich country-poor country relationships.

Further the dependency on foreign capital leads to much a higher outflow in the form of declared profits. Debt service and repayment also drain third world wealth as they stunt agriculture, encourages trade and investment dependencies and reinforces the dominance of exploitative elites of LDCs. Thus, foreign investment and aid signify dependence and as a means of exploitation of the periphery by the DCs.

Hence, this paper sees this theory as more realistic in describing the negative impact of foreign aid in capital formation in Nigeria. It tries to tackle the problem of dependence on foreign aid that actually exists in LDCs. For instance, the theory has it that once a LDCs country continues to depend on DCs for its sustenance, their level or rate of poverty and laxity will continue to increase as many human resources will remain dormant and unproductive both in long run and in short run.

**EMPIRICAL LITERATURE**

Levy (1988) with the use of descriptive statistical analysis and correlation coefficient studied the effect of aid in a sample of low-income Sub-Saharan African countries from 1968 to 1982 and found that aid is positively and significantly correlated with investment and economic growth.

Using a variety of samples and different econometric models like the PCA and Autoregressive models, Durbarry, Upadhyaya and Upadyay (1998) studied the effect of foreign aid within the period 1979-1997, focusing on the most positive amount of aid that would produce economic growth instead of diminishing returns. They found solid evidence that aid would boost economic growth. They asserted that there is in fact an optimal level of aid that should be given to developing countries to generate economic growth. The countries of focus were Cameroon, Nigeria and Kenya. In those countries utilizing good macroeconomic policies, around 40% to
45% of foreign aid as a percentage of GDP would allow recipient countries to generate favorable economic growth.

Javid and Qayyum (2011) with the use of linear regression with the application of ordinary least squares (OLS) technique examined the effectiveness of aid in Zimbabwe from 1990-2010, focusing on the ongoing debate on the interactive effect of aid and policy on sustainable economic growth. Main findings were that foreign aid and real GDP have a negative relationship, while the aid-policy interactive term and real GDP growth have a positive and significant relationship.

Swaroop, Shikha and Rajkumar (2000) using the linear regression method, covering the period 1981-1999, focused on estimating the effects of foreign aid on expenditure decisions of central government of India and found that foreign aid merely substitute for already earmarked government spending; the central government spends funds got through foreign aid on non-development activities.

Hansen and Tarp (2001) studied the relationship between foreign aid and economic growth in real GDP per capita by finding correlations with popular group of countries (Nigeria, Ghana and South-Africa) growth determinants. They adopted the method of correlation coefficient to estimate the relationship that exists between the variables. Their results show that foreign aid does increase the growth rate.

Feeny (2005), using the Autoregressive Distributed Lag (ARDL) approach to co-integration as proposed by Pesaran and Shin (1995) and time series data for the period 1965 to 1999, investigated the impact of foreign aid on economic growth in Papua New Guinea with the view to seeing if the effectiveness of aid is conditional on the levels of economic policy and governance. His finding gave evidence that aid and its various components have contributed to economic growth in Papua New Guinea. Going further, there is some evidence that aid is more effective during periods when the country has undertaken a World Bank Structural Adjustment Programme (SAP). Another interpretation is that a S.A.P. may be more valuable at spurring growth when backed by foreign aid.

Duc (2006), with the use of panel data regression, attempted to quantify the impact of foreign aid on economic growth in developing countries over the period 1975-2000. Making use of cross-country data comprising thirty-nine countries, he found evidence that foreign aid significantly and negatively correlates with growth in developing countries. He, nevertheless, found that foreign aid to Inland countries as well as South Asian countries during the period 1992-2000 significantly and positively correlates with growth. In addition, a strong deviating trend was found among countries in the dataset.
Tracy (2010) examined the impact of foreign aid on investment and economic growth in Nigeria over the period 1970 to 2009 using multivariate co-integration analysis. The empirical result from the investment equation shows that aid has a significant positive impact on investment in the long run. On the other hand, volatility of aid by creating uncertainty in the flow of aid has a negative influence on domestic capital formation activity. Foreign aid is effective in enhancing growth. However, the aid-policy interaction term has produced a significant negative effect on growth implying that bad policies can constrain aid effectiveness. The growth equation further revealed that rainfall variability has a significant negative impact on economic growth in the economy. His study indicated also that the country has no problem of capacity constraint as to the flow of foreign aid.

Yohannes, Hudson & Horrell (2011) examined the impact of foreign aid on economic growth and the Transmission mechanisms (i.e. investment, import and government consumption expenditure) of Ethiopia using Johansson maximum likelihood approach over the period of 1970/1 to 2008/9. The co-integration test result indicates the existence of long run relationship among the variables entered in all models. According to him, in the long run, foreign aid has a positive and significant impact on growth through its significant contribution to investment and import. However, the dynamic short run model points out that for aid to have a significant impact on growth, it has to be assisted by good monetary, fiscal and trade policy. In addition, in the short run, aid has significant impact on government consumption expenditure, which confirms the existence of aid fungibility.

Fasanya and Onakoya (2012) using the regression analysis for their study on the impact of foreign aid on economic growth, covering the period 1980-2011 showed that foreign aid flows have significant impact on economic growth in Nigeria. In which case, foreign aids were shown to be positively related with Nigeria’s economic growth; as increase in foreign domestic investments has positive effect on economic growth of a country.

Having empirically reviewed the foregoing studies, it is worthwhile to note that most of the studies conducted are of the opinion that foreign aid has a positive significant impact in economic growth with the aid of the different method they have used in carrying their research. However, this present study using linear regression with the application of ordinary least squares (OLS) technique have found out that foreign aid have a serious negative impact in capital formation in Nigeria just as Javid and Qayyum (2011) with the same use of linear regression and the application of ordinary least squares (OLS) technique examined the effectiveness of aid in Zimbabwe from 1990-2010 and found out that it has a negative impact in the economic growth of Zimbabwe.
Hence, this study in line with their research, tries to contend from its research that there is a negative impact of foreign aid on economic growth, especially as it concerns capital formation in Nigeria. Nonetheless, the studies in our literature left a gap, which this study of ours tried to fill up by using the Dependency Theory of Underdevelopment to drive home its major contention on the negative impact of foreign aid on capital formation in Nigeria.

**METHODOLOGY**

The method used in the study is the linear regression with the application of ordinary least squares (OLS) technique. The justification behind adopting this technique is based on the following: First, the data used in the analysis is secondary in nature gotten from Central Bank of Nigeria (CBN) Statistical Bulletin and World Bank Statistics Foreign Aid to Nigeria, 1980-2013, thus regression is appropriate. Secondly, the regression technique possesses optimal properties in the form of linearity, minimum variance and unbiased. Thirdly, the linear regression does not require much data to carry out its estimations, unlike the minimum variance, vector auto regression and other similar estimation statistics. Finally, this technique has been used by many previous researchers, and the results derived have been acceptable, satisfactory and optimal.

In this study, capital formation will serve as the dependent variable while foreign aid will be the independent variable. External Debt will however be added as a control variable. The measuring variables are specified as follows:

\[ CG = \beta_0 + \beta_1 FA + \beta_2 EXD + u \]

By explanation, CG represents Capital Generation, FA stands for Foreign Aid and EXD represents External Debt as a control variable. The \( \beta \)'s are parameters to be estimated and the \( u \) is the stochastic error term. The Analytical technique was as follows:

**The Coefficient of Determination \([R^2]\)**

To test for the explanatory power of the independent variables, the coefficient of determination; \(R^2\) was applied. The essence of the application of this statistic is that it will be used to measure the explanatory power of the independent variable(s) over the dependent variable. This statistic is thus used as a test of goodness of fit. \(R^2\) lies between zero and one \((0 \leq R^2 \leq 1)\). The closer \(R^2\) is to “1” the greater the proportion of the variation in the dependent variables attributed to the independent variables.
T Statistical Test of Significance
At 5% level of significance, the t-test will be carried out to ascertain the statistical significance of the individual regression coefficient.

Decision Rule (T-Statistics)
If the value of t-statistics exceeds absolute 2, we reject the null hypothesis and accept the alternative; hence we say the test is statistically significant at the individual regression coefficient. But if the value of t statistics is less that absolute 2, we say the test is statistically insignificant at the individual regression coefficient. Thus we accept the null hypothesis which states that foreign aids has a negative impact on capital generation in Nigeria and reject the alternative.

F-Statistical test of Significance
The F-statistical test will be carried out at 5% level of significance; reflecting a 95% confidence interval. This test is considered imperative as it will evaluate the statistical significance of the entire regression plane.

Decision Rule (F-test)
If the numerical value of the computed f-statistics exceeds absolute 3, then the test is statistically significant at the entire regression plane. But if the value of f-statistics is less 3, then the test is statistically insignificant at the entire regression plane.

ANALYSIS AND FINDINGS

Table 1: Foreign Aid, Capital Generation and External Debt 1980-2013.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FOREIGN AID</th>
<th>EXTERNAL DEBT</th>
<th>CAPITAL GENERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>34400000</td>
<td>3.76</td>
<td>17683.21</td>
</tr>
<tr>
<td>1981</td>
<td>39250000</td>
<td>4.9</td>
<td>18220.59</td>
</tr>
<tr>
<td>1982</td>
<td>34950000</td>
<td>17.97</td>
<td>17145.82</td>
</tr>
<tr>
<td>1983</td>
<td>46750000</td>
<td>19.88</td>
<td>13335.33</td>
</tr>
<tr>
<td>1984</td>
<td>32390000</td>
<td>24.84</td>
<td>9149.76</td>
</tr>
<tr>
<td>1985</td>
<td>31710000</td>
<td>25.48</td>
<td>8799.48</td>
</tr>
<tr>
<td>1986</td>
<td>58120000</td>
<td>59.94</td>
<td>11351.46</td>
</tr>
<tr>
<td>1987</td>
<td>67620000</td>
<td>95.79</td>
<td>15228.58</td>
</tr>
<tr>
<td>1988</td>
<td>255080</td>
<td>96.31</td>
<td>17562.21</td>
</tr>
<tr>
<td>1989</td>
<td>344000</td>
<td>110.88</td>
<td>26825.51</td>
</tr>
<tr>
<td>1990</td>
<td>255000</td>
<td>111.61</td>
<td>40121.31</td>
</tr>
</tbody>
</table>
Table 2: Regression Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1982088.27</td>
<td>277015.6</td>
<td>7.155150</td>
<td>0.0000</td>
</tr>
<tr>
<td>FOREIGNAID</td>
<td>-0.024826</td>
<td>0.008867</td>
<td>-2.799904</td>
<td>0.0087</td>
</tr>
<tr>
<td>EXDEBT</td>
<td>-20063.46</td>
<td>4419.827</td>
<td>-4.539422</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

R-squared: 0.458832  Adjusted R-squared: 0.423918
Mean dependent var: 847394.8  S.D. dependent var: 1279228.
Akaike info criterion: 30.49400  Schwarz criterion: 30.62868
F-statistic: 13.14175  Prob(F-statistic): 0.000074

SOURCE: Authors’ Computation Using Eviews Econometric Software
Based on the regression result above, one can clearly see that the coefficient of foreign aid is negative, giving a value of \(-0.024826\). This result entails that over the years, foreign aid has contributed negatively to the growth of capital generation in Nigeria. Hence, for every 1% increase of foreign aid inflow into Nigeria, capital formation reduces by 0.024826. This result conforms to economic a priori expectation because foreign aid inflow has gone a long way to crumble the economy based on their over reliance on such inflows and this deteriorates creativity needed for internal national-economic transformation.

The T-statistics of foreign aid which yielded -2.799904 shows that the result is greater than absolute 2. Hence; we reject the null hypothesis and accept the alternative. This implies that the negative contribution of foreign aid to capital generation in the economy is significant.

The R-Squared which yielded 0.458832 entails that the changes in capital generation is not significantly attributed to the changes in foreign aid and its accompanying variable [External Debt]. The F-statistics which yielded 13.14175 entails that foreign aid and external debt collectively contributes negatively to the level of capital generation in the economy and this call for huge concern for Nigerian policy makers.

So far, the research has been able to econometrically estimate the impact of foreign aid on capital generation in Nigeria covering the period 1980-2013. In the course of the estimation, it was seen from the coefficients that the foreign aid contributed negatively to capital generation in Nigeria. Even the accompanying variable attached [External Debt] shows that it also contributes negatively to capital generation in Nigeria. Hence; the implication of this result is that if Nigeria continues to accept external assistance in the form of foreign aid, the economy will continue to deteriorate.

RECOMMENDATIONS
In the light of the above findings, the following recommendations were suggested:

1. Nigeria should grossly avoid accepting aid with hydra headed connotation or clauses from developed nations as it deteriorates the economy and makes it vulnerable to external control.
2. Foreign aids if attracted should be channeled to revenue generation projects that will increase the level of economic capital base and employment that assure steady economic growth.
3. The federal government should aggressively pursue economic reform policies so as to make our economy strong and avoid future dependence on external assistance.
4. The government should as well block sources of economic leakages and illegal money transfers to foreign counties through its ministries and agencies that weaken our economy and thus makes the country vulnerable to foreign aid.

5. As a matter of urgency, the government should open an agency that would understudy and approve any aid donors and grants coming into the country to discourage the ones that could posit negative impact on the economy and make us slaves to foreign nations.

6. In a situation where the aid is considered necessary, no imposition should be tolerated, negotiations should be devoid of superiority complex, and Nigerians should be allowed to be in charge while the donors should only oversight.

CONCLUSION
This research has focused on estimating the impact of foreign aid on capital generation in Nigeria. The research is revealing. Therefore, on the platform of this theory and empirical research, government new polices and legislations should be indisposed to foreign aid and its promise of economic boom. Government and investors should focus on investment economy that will send exploitative donors invasion to oblivion. Based on the findings and recommendations of this study, the conclusion is that foreign aid should be grossly avoided or minimally and only be sought when it is unavoidably necessary.

REFERENCES
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