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IMPACT OF FOREIGN AID ON NIGERIAN ECONOMY

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ABSTRACT----------
The study examines the impact of foreign aid on economic growth of Nigeria. Nigeria's annual times series data was used from 1980 to 2015. The result of the granger causality reveals that, the foreign aid or official development assistance (ODA) causes GDP in the short run. The objective of the study was achieved by employing the impulse response function (IRF) through vector error correction model (VECM) framework, reveals that foreign aid has a positive relationship with GDP except in horizon 2, 3, and 7, this implies that increase in foreign aid will increase Nigeria's GDP except in some years as shown in the response function result, which we attributed to corruption and mismanagement of resources bedeviling the economy.----------

1.0 INTRODUCTION

Nigeria's poor economic situation might not be unconnected with long time military rule in the country, corruption, overdependence on oil revenue, unemployment, and poverty among other things. Nigeria is a resource rich country, where the economy witnessed an average of 6.08% growth rate in the last decade(trading economics, 2005-2015). It is the richest country in Africa as recently announced by the World Bank. Despite the abundant resources available, Nigerians continue to live in a serious poverty with almost 60% of the populace living below the poverty line (BBC report, 2012). This situation in the country attracted a number of foreign donations in form of

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official development assistance (ODA), (henceforth, ODA and foreign aid will be used interchangeably). The lion share of the official development assistance to Nigeria goes to the servicing of the debt, this account for about 66% of the total aid. The foreign aid flows to Nigeria increased tremendously where it reached a peak in 2006, and had drastically reduced in 2010.

Foreign aid is one of the boosters of economic growth of the less developed nations. It is either a project aid which support the infrastructural improvement of the recipient countries or financial program me aid generally aimed at helping the recipient country to overcome its balance of payment crisis. It consists of debt relief and directly supplementing the budget. As such the aid plays a vital role in ameliorating poverty, unemployment; it (aid) also renders a humanitarian support, as well as help in management of natural disasters. Similarly, the Millennium Declaration adopted by the member states of the United Nations in September 2000, identified

eight Millennium Development Goals (MDGs)[1]that should be achieved by the year 2015. Clearly most countries will need substantial amounts of foreign aid in order to achieve the MDGs Asiedu and Nandwa(2007)[2]. Nigeria is one of the developing countries that have received a number of aids from the donor countries and international bodies. But the question of concern is whether these aids have actually impacted on the economy positively or not? This research intends to carry out an empirical study towards providing an answer to the above question.

2.0 LITERATURE REVIEW

Various attempts have been made to study the effect of foreign aid on growth. The studies remained with a mixed outcome. While some studies found foreign aid to have a positive impacton growth, some studies found negative relationships between the two variables, however, to some studies, the outcome is inconclusive.

Abedemi, Abedemi, and Olawale(2011), Steve, Samuel, and Bodisoewei (2013),Dmaid and Adegbemi (2012), outtara and strobl (?), conducted a study on the impact of foreign aid on economic growth using the same methodology,(vector error correction mechanism), the studies all concluded that foreign aid impacted positively on economic growth. Similarly Eric's study found that financial aid impact positively on economic growth. In the same vein, a positive relationship between foreign aid and economic growth was also found in the works of, Olanrele and Ibrahim(2015), Emmauel (2012), and whitaker(2006). All the studies used two stages least square estimator for their estimation. Contrarywise therefore, Emmauel's(2012) findings revealed that aid posed a negative impact on growth. Peter, Meriel, and Ubi(2012), Asiedu and Nandwa(2009), and Gulam(2005) have independently studied foreign aid and economic growth nexus using regression analysis. However, their conclusion was foreign aid impact positively on economic growth.

An ARDL bound testing approach was also conducted by Kargbo (2012). The approach reveals that foreign aid contributes to GDP. Abdulnasir and Mancher(2005), used panel cointegration to study different types of aids with focus on Swedish aid which turned out to have a positive impact on economic growth. In the same vein, the aid- growth nexus was studied using apanel analysis in the works of Sethi (2012), Ekanayake and Chartna(2009), whitaker (2006), asiedu and Nandwa(2006), all concluded positive relationship exist between foreign aid and economic growth. However, the greatest disadvantage of this method is that, it does not take in to account individual country differences, as all countries were treated as having the same features and hallmarks. The fact is each country has its own features which made it different from others. Hence, these country's aid and growth nexus should be studied individually.

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[1]A sumary of the MDGs are: (i) eradicating poverty and hunger; (ii) achieving universal primary education; (iii) promoting gender equality; (iv) reducing child mortality; (v) improving maternal health; (vi) combating HIV/AIDS and other diseases; (vii) promoting environmental sustainability; and (viii) equality; (iv) reducing child mortality; (v).improving maternal health; (vi) combating HIV/AIDS and other diseases; (vii) promoting environmental sustainability; and (viii) developing a global partnership for development.

[2]Asiedu E. and Nandwa B.(2006), on the impact of foreign aid in education on growth: how relevant is the heterogeneity of aid flows and the heterogeneity of aid reciepient?

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Similarly, Gusav (2012), kiiza (2008), Randhawa(2012), and Mark(?), all studied the literature on macro level effectiveness of aid. These studies divided the opinions of scholars regarding aid as well the advantages and disadvantages associated with each view. They lack power to take side and show boldly whether aid has positive, negative or neutral impact on economic growth because they did not study the scenario with empirical back up, rather they conducted their study with the help of empirical literature available on these studies.
Finally therefore, this study is different from the above studies in the sense that, I did not only study the impact of foreign aid on economic growth, but also I looked at its impact on external debt. This is because foreign aid plays a vital role in the Nigeria's external debt, as foreign aid contributes 66% of external debt servicing in Nigeria.

3.0 METHODOLOGY

The data used in this study is the annual data released by the World Bank. This data was also available with different government institutions in Nigeria like, central bank of Nigeria (CBN) statistical bulletin, and National bureau of statistics (NBS).

The variables used in this analysis are gross domestic product (GDP), which was used as an endogenous variable. Another important variable in the analysis is the foreign aid which is given as official development assistance (ODA). Other variables which are used in the analysis as control variables include: per capita income, government expenditure, total savings, inflation, and exchange rate. To analyze the impact of official development assistance on the Nigeria's economic growth, the relationship can be expressed as:

GDP=F(ODA, INF, EXPD, PY, EXG, DEBT)…… (1)

Where ODA represent official development assistance, Inf and EXPD stands for inflation and government expenditure respectively, PY represent per capita income, and EXG represent exchange rate. The justification for arriving at equation (1) came from conceptual and empirical literature reviewed by the research. Initially, we assumed that only ODA affect growth, but we later decide to incorporate some control variables in the model. We assumed that, the control variables also contributed in explaining GDP apart from ODA.

Vector Error Correction Model (VECM)

After careful assessment of the time series properties of the variables under consideration, we found that the best technique to apply in assessing the impact of official development assistance on economic growth, we applied the vector error correction model.
Consider the basic VECM specification below:

$$W_t = \phi_1 + \Gamma_1 \Delta w_{t-1} + \Gamma_2 \Delta w_{t-2} + \Gamma_k \Delta w_{t-n} + \Pi w_{t-1} + V \quad \text{.....(2)}$$

Where W_t is an NxM vector of endogenous variables, W_{t-1} ……W_{t-n} is the vector of explanatory variables up to lag N, Γ is the vector of coefficients. Π matrix represent the long run information of the model and is decompose into α and β matrix, V is the 1XN vector of error terms.To analyzed the impact of shocks in the system, we used impulse response functions, which refers to the reaction of any dynamic system in response to some external change. In both the cases, the impulse response describes the reaction of the system as a function of time(or possibly as a function of some other independent variable that paprameterizes the behavior of the system). The IRF gives the jth period response when the system is shocked by a one standard deviation shock.

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4.0 RESULT PRESENTATION AND ANALYSIS

Table 1: Summary of the Descriptive statistics result

	DEBT	EXG	EXPD	GDP	INF	ODA	PY
Mean	3.111814	6.75E+10	25.94823	25.97347	16.66176	1.617180	54671.63
Median	3.116311	76200750	25.00780	25.00971	11.58000	0.221541	54241.00
Maximum	3.349147	1.47E+12	31.22138	31.26212	72.84000	5.041746	83803.00
Minimum	2.928257	0.000000	21.89499	21.82097	-3.730000	-0.597837	34478.00
Std. Dev.	0.144003	2.38E+11	3.055033	3.107046	16.52037	2.236827	10602.43
Skewness	0.128283	4.769085	0.269039	0.262855	1.742618	0.434194	0.582502
Kurtosis	1.489790	26.50442	1.685014	1.683888	5.491492	1.482047	3.323302
Jarque-Bera	3.910933	1394.108	4.373887	4.351797	39.00310	6.626266	3.167139
Probability	0.141498	0.000000	0.112259	0.113506	0.000000	0.036402	0.205241
Sum	124.4726	3.51E+12	1349.308	1350.620	849.7500	84.09334	2842925.
Sum Sq. Dev.	0.808743	2.88E+24	475.9946	492.3404	13646.14	255.1732	5.73E+09
Observations	40	52	52	52	51	52	52

Table 1 presents the summary of descriptive statistics result for the variables under consideration. The result shows that, the mean value and standard deviation for debt stood at 3.11 and 0.144 respectively. The minimum and maximum value for debt during the study period were 3.34B and 2.92B Naira, the skewnes and kurtosis which measure the peak and fat tails of the debt series shows a value of 0.12 and 1.48 which shows that the series is positively skewed and platykutic. The Jarque-Bera which shows the normality of the series has a value of 3.91 indicating that the debt series is not normally distributed. For the exchange rate series, the mean and standard deviation were 6.7 and 2.38 respectively. The minimum value of Naira/Dollar exchange rate is 0.55 while the maximum is 147 Naira, for the coefficients of skewness and kurtosis the values were 4.76 and 26.50 respectively which shows that the series is positively skewed and leptokutic. The value for the Jaque-Bera is 1394 which show that the series is not normally distributed. The result for expenditure series revealed that the mean and standard deviation were 25.97 and 3.05, while the maximum and minimum values are 31.22 and 21.89 respectively, the coefficient of skewness and kurtosis for the series are 0.26 and 1.68 while the Jaqua-Bera statistics indicates the value of 4.37 meaning that the series is not normally distributed. The result for GDP series shows that, the mean value and standard deviation were 25.97 and 3.10 respectively. The minimum and maximum value of the GDP during the study period were 25.00B and 21.22B Naira, the skewnes and kurtosis which measure the peak and fat tails of the debt series shows a value of 0.26 and 1.68 which shows that the series is positively skewed and platykutic. The Jarque-Bera shows the normality of the series, the value of 4.35 indicates that the debt series is not normally distributed. The mean value for inflation, official development assistance and personal income were 16.66, 1.61 and 54671 respectively, where as their dispersions were16.52, 2.23 and 10602.3. the skweness and kurtosis of the series shows that all the series are positively skewed, but inflation and personal income are having values greater than 3 which shows that the series are leptokutic while official development assistance has a value of 1.48 which is less than 3, this shows that the series is plytokutic. The Jaque-Bera statistic shows that inflation and official development assistance are normally distributed while personal income is not normally distributed.

Next step is to assess the stochastic properties of our time series data. To do that, we first plot the series in order to see the assumption of the deterministic component that each series should have[3] in the specification for the test of stationarity. The trends analysis shows that all the series have an intercept and a stochastic or deterministic trends but the element of seasonal dummies were not found. So in each of the assumptions of the equations for stationarity test we include a constant and trend.

[3] See the trends in appendix

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Table 2: stationarity test

	Level		First Difference	
	ADF	**PP**	**ADF**	**PP**
Debt	-2.9407	-2.1353	-5.0296	-6.0306
Exchange rate	-2.9768	-3.0953	-6.159	-16.6820
Exp	-2.4637	-2.2998	-4.8020	-4.7268
GDP	-2.2921	-2.3120	-5.1779	-5.1568
Inflation	-3.3242	-3.1653	-7.2320	-16.0756
Development Asst.	-1.8597	-1.9180	-5.6887	-5.6996
Per capita income	-0.9425	-1.2917	-2.8591	-5.1027

	ADF	PP
1% level	-4.211868	-4.243644
5% level	-3.529758	-3.544284
10% level	-3.196411	-3.204699

Table 2: presents the result for stationarity test. We use augmented Dickey-Fuller(ADF) and Phillips and Perron test to test the null hypothesis of unit root against an alternative hypothesis of stationary. The essence is to see whether the mean and variance of the series are zero and the covariance is constant across different samples. We also made use of ADF and PP to see whether the parametric and non parametric way of resolving the problem of serial correlation in the stated equations can lead to differences in the conclusion for the series. To make decision regarding the hypotheses we compare the test statistic given in table 2 with the critical values at 1%, 5% and 10% respectively. The level result for ADF and PP shows that all the variables have unit root at 1% and 5% level of significance, only the development assistance series is stationary at 10%. On the other hand, the first difference of the series shows that all the series were stationary except the ADF result for per capita income which shows the presence of unit root at first difference, but the PP result of the series indicates stationarity at first difference. The difference in terms of the conclusion for per capita income series may be attributed to the adjusted t-statistic used in PP as against the normal t-statistic used for ADF in making decisions.

Now since we have found the order of integration, and we found that all the variables are integrated of order one. Next is to check whether there is presence of co integrating vectors among the series, if the co integrating vector exists it means there is a presence of long run equilibrium among the series. And the economic interpretation of co integration is that it measures the level of diversification of the economy, this means that the more co integrating vectors a system has, the more an economy is diversified. Based on the stochastic properties of our series, we used Johnson (1992) test of co integration procedure to check the presence of long run relationships between the variables

Table 3: Pantula Method for choosing Co-integration equations

	Intercept(no trend) in the CE-no intercept in VAR		**Intercept(no trend) in CE and test VAR**		**Intercept and trend in CE- no intercept in VAR**	
HCE	**Trace Stat**	**Max. Eigen Val.**	**Trace Stat**	**Max. Eigen Val.**	**Trace Stat**	**Max. Eigen Val.**
CE=0	227.07	60.74	207.00	58.93	233.40	62.48
CE≤1	166.32	51.12	148.07	48.85	170.91	57.48
CE≤2	115.19	44.10	99.21	41.85	113.43	47.88
CE≤3	71.09	28.44	57.36	24.04	65.55	26.52
CE≤4	42.65	19.81	33.32	18.64	39.03	23.88
CE≤5	22.83	16.67	14.67	9.68	15.14	10.15
CE≤6	6.16	6.16	4.99	4.99	4.99	4.99

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Table 3 presents the result for the co integration analysis, to check the best assumption that fit the data generating properties(DGP) of the series, we employ the Pantula principle which states that you run all the five assumptions and select from them the one that present the highest co integrating vectors. But we consider three assumptions because they only make economic sense. We run the first model to include intercept (no trend) in the co integrating equation and also no intercept in the VAR specification, the second model assumes an intercept (no trend) in the co integrating equation and test VAR while the last model assumes the presence of intercept and trend in the co integrating equation and no intercept in the test VAR. based on the relationship between the number of variables in the system and rank of the matrix, we developed six null and alternative hypotheses, for each assumption, we compared both the trace statistic and maximum Eigen Values with the critical values[4] to make decision on the presence of co integrating vectors. The first assumption indicates the presence of 6 co integrating vectors using both the trace and maximum Eigen value statistics, the second equation shows that presence of 5 co integrating equations and the last model indicates the presence of four co integrating vectors. We take the first assumption since it gives us maximum number of long run relationships.

Table 4: long run co integration equation

GDP	EXG	EXPD	PY	INF	ODA	DEBT
1.00	-7.34(-1.93)	-14.23(-9.6)	1.68(1.52)	0.0311(5.5)	0.028(0.17)	14.0(10.0)
-2.33(-10.59)	1.02(0.16)	2.34(10.17)	-2.77(-1.53)	-0.004(-4.5)	1.00	-0.048(-1.8)
-0.918(7.98)	-1.76(-0.65)	0.8185(7.64)	1.28(1.28)	-0.002(7.67)	-0.019(1.71)	1.00

Now since we have found the presence of long run relations, the next is to present the long run co integrating equations attached to the vectors. We assumed GDP, Official development assistance and debt as the explained variables; therefore we normalized on them in each of their equations. For GDP equation, the result shows that exchange rate and government expenditure are negatively related, whereas per capita income, inflation, official development assistance and debt are positively related. The result further revealed that exchange rate, expenditure and inflation are statistically significant. For the official development assistance equation all the variables are negatively related except exchange rate and expenditure. in terms of significance, the equation reveals that GDP, government expenditure, inflation and debt are statistically significant. For the debt equation, the result shows that except expenditure and per capita income all the variables are negatively related. But only GDP, expenditure and inflation are statistically significant.

Table 5: coefficient of the speed of adjustment

Equations	Loading Factor	T-statistics	Lag length
GDP	-0.3799	-0.7640	1
EXG	-1.00	-6.35	1
EXPD	-0.88	-1.75	1
PY	0.05	1.66	1
INF	-0.45	-2.17	1
ODA	-0.10	-0.51	1
DEBT	-0.44	-2.23	1

Since we have found the co integrating equations and the long run equations were also presented, next is to present the coefficient for the speed of adjustment which represent the dynamics that correct the short run disequilibrium in the system. The theoretical assumption is that the coefficient has to be negative, less than one and

[4] For the critical vales see appendix

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also statistically significant. The result for the short run dynamics is presented in table 4.5, the result shows that the entire coefficients conformed with the prior expectation of being negative and less than one except exchange rate equation. For the statistical significant, all the coefficients are significant except GDP and ODA.

Table 6: short run causality test

Null Hypothesis:	Obs	F-Statistic	Prob.
D(INF) does not Granger Cause D(PY)	48	0.40526	0.6693
D(PY) does not Granger Cause D(INF)		1.11388	0.3376
D(EXPD) does not Granger Cause D(PY)	49	0.70133	0.5014
D(PY) does not Granger Cause D(EXPD)		0.99377	0.3783
D(EXG) does not Granger Cause D(PY)	49	0.02114	0.9791
D(PY) does not Granger Cause D(EXG)		0.19887	0.8204
D(DEBT) does not Granger Cause D(PY)	37	0.33134	0.7204
D(PY) does not Granger Cause D(DEBT)		0.25019	0.7802
D(GDP) does not Granger Cause D(PY)	49	0.25733	0.7743
D(PY) does not Granger Cause D(GDP)		0.47355	0.6259
D(ODA) does not Granger Cause D(PY)	49	0.20638	0.8143
D(PY) does not Granger Cause D(ODA)		0.04257	0.9584
D(EXPD) does not Granger Cause D(INF)	48	0.18134	0.8348
D(INF) does not Granger Cause D(EXPD)		2.16012	0.1277
D(EXG) does not Granger Cause D(INF)	48	0.11573	0.8910
D(INF) does not Granger Cause D(EXG)		0.05537	0.9462
D(DEBT) does not Granger Cause D(INF)	37	1.84428	0.1746
D(INF) does not Granger Cause D(DEBT)		0.21004	0.8117
D(GDP) does not Granger Cause D(INF)	48	1.90951	0.1605
D(INF) does not Granger Cause D(GDP)		3.24330	0.0488
D(ODA) does not Granger Cause D(INF)	48	3.52073	0.0384
D(INF) does not Granger Cause D(ODA)		3.16099	0.0524
D(EXG) does not Granger Cause D(EXPD)	49	0.07700	0.9260
D(EXPD) does not Granger Cause D(EXG)		0.13863	0.8709
D(DEBT) does not Granger Cause D(EXPD)	37	1.44118	0.2516
D(EXPD) does not Granger Cause D(DEBT)		0.15168	0.8599
D(GDP) does not Granger Cause D(EXPD)	49	0.77639	0.4663
D(EXPD) does not Granger Cause D(GDP)		1.38710	0.2605
D(ODA) does not Granger Cause D(EXPD)	49	1.52517	0.2289
D(EXPD) does not Granger Cause D(ODA)		0.19377	0.8245
D(DEBT) does not Granger Cause D(EXG)	37	3.93834	0.0296
D(EXG) does not Granger Cause D(DEBT)		0.45483	0.6386
D(GDP) does not Granger Cause D(EXG)	49	0.14734	0.8634
D(EXG) does not Granger Cause D(GDP)		0.07134	0.9313
D(ODA) does not Granger Cause D(EXG)	49	0.01213	0.9879
D(EXG) does not Granger Cause D(ODA)		0.35466	0.7034

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D(GDP) does not Granger Cause D(DEBT)	37	0.25124	0.7794
D(DEBT) does not Granger Cause D(GDP)		3.95095	0.0293
D(ODA) does not Granger Cause D(DEBT)	37	0.40288	0.6717
D(DEBT) does not Granger Cause D(ODA)		0.21795	0.8053
D(ODA) does not Granger Cause D(GDP)	49	2.52396	0.0917
D(GDP) does not Granger Cause D(ODA)		1.28699	0.2863

Since we established the presence of long run equilibrium then we need to check what cause the short run and long run relationships between the variables in the model. To check the short run causal relationships, we applied Granger Causality test. The theoretical condition for using this test is that the variables should be stationary, if the condition exists, at level, then the Granger method can be used to check for the presence of long run causality, otherwise we differentiate the variables and then apply the Granger test for the short run causality. Since all our variables are integrated of order one then we used Granger causality to check for the presence of short run causal relationships between the variables. Table 4.6 presents the result of the short run Granger causality test, the result shows that per capital income doesn't cause inflation, government expenditure, exchange rate, debt, GDP and official development assistance in the short run and vice versa. There is no causal relationship between inflation, government expenditure and debt but there is a unidirectional causality that runs from inflation to GDP and also bidirectional causality between inflation and official development assistance. The result for Government expenditure shows no causality exist between exchange rate, debt, GDP and official development

assistance. The result also shows the presence of Uni-directional causality from debt to exchange rate, debt to GDP and official development assistance to GDP.

Table 7: long run causality test

Equations /variables	Debt	Expenditure	Per capita Y	Inflation	Exch. Rate
Exchange rate	2.97(0.22)	4.26(0.11)	0.49(0.78)	1.00(0.60)	-
Expenditure	0.95(0.61)	-	0.30(0.85)	3.15(0.20)	0.31(0.85)
Inflation	3.68(0.15)	7.35(0.02)	2.30(0.31)	-	1.65(0.43)
Per Capita Y	0.75(0.68)	0.27(0.87)	-	1.17(0.55)	2.08(0.35)
Debt	-	4.26(0.11)	0.49(0.78)	1.09(0.57)	3.45(0.17)

Note: the probability values are in parenthesis

Now to check for the presence of long run causality, first, we only checked for those equations whose their loading factors conformed with the theoretical expectation and secondly we assumed that the relationship between the variables is linear in nature, so we applied Wald test for linear restriction. The result is presented in table 4.7, for exchange rate equation the result shows that in the long run debt, Government expenditure, per capita income and inflation will not cause exchange rate. For expenditure equation, the result reveals that debt, per capita income, inflation and exchange rate will not cause GDP in the long run. For the inflation equation, the result shows that only Government expenditure is capable of causing inflation in the long run. The per capita income shows no long run causality between the explanatory variables in the equation and finally, the result for debt equation reveals that expenditure, per capita income, inflation and exchange rate will not cause Debt in the long run.

Now since we have analyzed the time series properties of our variables, we found that the appropriate model to use for the impact analysis is vector error correction model (VECM), we estimated the model and generate the impulse response function for all the variables. In terms of the ordering of the variables, since we don't have any theoretical information on their order, we applied Cholesky ordering, the results are presented in tables below

Impulse Response Function

Due to space limitation, we only report the response of GDP to other macroeconomic variables in the system below.

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Table 8: Impulse Response Function of ODA

Period	DEBT	EXG	EXPD	GDP	INF	ODA	PY
1	0.008523	-0.001747	-0.006491	0.003097	0.003096	0.009233	0.000000
2	0.000926	-0.003940	-0.011687	-0.001394	-0.004885	0.005919	0.009102
3	0.014149	-0.006268	-0.002831	-0.001878	-0.007338	0.002494	0.000812
4	0.001600	0.000421	-0.009746	0.004768	0.000421	0.010131	-0.003374
5	0.011080	-0.005242	0.002423	0.002349	-0.000861	0.004301	-0.001181
6	-0.052559	-0.004890	-0.028264	0.009311	0.013133	0.007062	-0.015210
7	0.029574	-0.009215	0.019921	-0.000867	-0.007826	-0.006042	-0.020277
8	-0.134904	0.001275	-0.082860	0.015958	0.023534	0.020497	-0.020453
9	0.143941	-0.025484	0.090348	-0.020564	-0.046469	-0.027328	-0.007388
10	-0.388136	0.010262	-0.233159	0.054363	0.076524	0.060063	-0.035763

The main objective of the research is to assess the impact of official development assistance on economic growth in Nigeria, table 8 presents the result of the response of debt, exchange rate, expenditure, inflation, official development assistance and per capita income as a result of shock in official development assistance, the shock on official development assistance on GDP is a mixed one, it shows a positive result of 0.003 at lag one, then it became negative at lag 2 and lag 3, it change to positive from lag 4 through lag 6, and subsequently became negative at lag 7 and lag 9. The impact has been significant across the entire forecast period. For the other variables, the impact started at first year except for per capita income, After five years, the response of the variables to shock in GDP is positive except for exchange rate, inflation and per capita income. At the end of ten years the result shows that when there is a shock in official development assistance it will affect debt by -0.38, exchange rate by 0.01, expenditure by -0.23 and inflation by 0.076, other variables that were affected are inflation by 0.060 and per capita income by -0.035.

CONCLUSION

Conclusively therefore, Nigeria is one of the major beneficiaries of foreign aid (official development assistance), therefore the core objective of this study is to examine the effectiveness of aid on Nigerian economy. The study concluded that foreign aid (official development assistance) can cause GDP in the short run, in other words, increase in foreign aid will lead to increase in GDP. however ,there is no long run causality, between foreign aid and GDP. Similarly foreign aid does not cause external debt and foreign aid has both positive as well as negative relationship with GDP as indicated in some of the forecasted horizons. This shows that a good share of foreign aid funds are either stolen or mismanaged which has been the reason for negative relationship. The study further concludes that foreign aid has both positive and negative relationship with external debt, this shows that foreign aid is sometimes not helping the external debt of Nigeria. Despite the fact that about 66% of Nigeria's foreign aid goes to the servicing of the debt, the study reveals exchange rate is an important variable in explaining the forecast error variance of both official development assistance and debt in Nigeria. This study finally found that foreign aid sometimes help in solving Nigeria's economic problems, as the result shows sometimes foreign aid is positively related with GDP.

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