GOVERNMENT EXPENDITURE IN NIGERIA AND ITS IMPACT ON THE NIGERIAN ECONOMY, 1986-2014

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ABSTRACT

This study examined government expenditure in Nigeria and its impact on the Nigerian economy, 1986 -2014. The major objective was to investigate the extent of the impact of capital expenditure and recurrent expenditure Nigerian economy. The study adopted ex-post facto research design. It used annual time series data extracted from the Central Bank of Nigeria statistical bulletin and annual report. For the data analyses, the study used descriptive statistics and a scatter plot, and employed the multiple regression techniques of the ordinary least squares (OLS) where gross domestic product is the dependent variable, responsive to capital expenditure, recurrent expenditure and money supply. Breusch Godfrey 'advanced autocorrelation unit root test was performed to avoid running a spurious regression. The results revealed that government expenditure (capital and recurrent) and broad money supply have positive linear relationship with economic growth in Nigeria. Particularly, government capital expenditure has significant positive effect on the growth of Nigerian economy. The government recurrent expenditure has a non-significant positive effect on economic growth in Nigeria. The study recommended that the Independent Corrupt Practices and other Related Offences Commission and the Economic and Financial Crimes Commission should be reformed and strengthened in order to promote transparency in the conduct of government spending. The Nigerian government should also adopt a public medium term expenditure framework to ensure predictable and sustainable public expenditure at all levels of government.

KEYWORDS: Recurrent expenditure, Capital expenditure, Money supply, Economic

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INTRODUCTION

Government Expenditure can be described as expenses which any government incurs for its own maintenance, for the good of society and the economy, and for assistance to external bodies and other countries (Anyanwu, 1993).It refers to the expenditure of government on governmental bodies and on various segments of the economy. A good pattern of government expenditure encourages economic growth, favors the provision of employment and good roads, and ensures increase in salaries of civil servants. Government expenditure pattern of any developing country should be geared towards this international standard of goodness.

But the Federal Government expenditure pattern in Nigeria has been complained of by some Nigerians, through the TV and Print media, as not having the desired effect on the economy. They complain that more money is allocated to the executive arm of government and that corruption adversely affects government expenditure. Also, they complain that their social amenities needs are not met. Added to this, it is not just that the major part of the Government expenditure goes into sheer consumption, a substantial amount of money budgeted for capital expenditure, at the presence of fraud and embezzlement of public funds in Nigeria goes into corruption.

An extensive research have been done on government expenditure in other countries but such far-reaching research in this area is largely unexplored in Nigeria, hence this research on "Government Expenditure in Nigeria and its impact on the National Economy, 1986 – 2014". These points at the need to examine the pattern of Federal Government Expenditure and its impact on the economic growth of Nigeria. This paper, therefore, seeks to find out the pattern of recurrent expenditure and the pattern of capital expenditure in Nigeria to ascertain their impact on the national economy, using data from 1986 to 2014.

REVIEW OF RELATED LITERATURE

Anyafo (1996) describes expenditure as an actual payment or the creation of an obligation to make a future payment for some benefit, items or service received. Hales (1994) defines expenditure as payment, or promise of future payment and the obligation incurred thereunder, for goods and services delivered.

Attamah (1999) writes that the traditional function of government expenditure is the maintenance of the bureaucratic structure (i.e. the civil service) and defence. Today, governments perform a variety of economic functions. According to him during the industrial revolution, poverty was increasing at an alarming rate, and as an offshoot of the increasing suffering of the labourers (proletariat), Karl Marx and his followers agitated for a communist revolution. In reaction to this

growing suffering, the governments of many countries started to increase their presence in the economic arena by acting as a redistributive agent to lessen the burden of the poor.

Abu and Abdullahi (2010) examined government expenditure and economic growth in Nigeria from 1970 to 2008. Employing ordinary least squares (OLS) regression technique, they found that government capital and recurrent expenditure have negative and non-significant effect on economic growth of Nigeria.

Agbonkhese and Asekome (2014) studied the impact of public expenditure on the growth of the Nigerian economy from 1981 to 2011. They employed Ordinary Least Square (OLS) method of econometric technique and found that although there is a positive relationship between the dependent and independent variables, the adjustment of economic growth or gross domestic product was a fair one which made it difficult to reject the null hypothesis which according to them implies that government over the years appears to be bad managers of resources and have failed to play their role in the process of economic growth and development.

Taiwo and Agbatogun (2011) studied government expenditure as a sine qua non for economic growth and development in Nigeria from 1980 – 2009. Using Johansen Co-integration, unit root test and error correction model, it was discovered that total capital expenditure, inflation rate, degree of openness and current government revenue are significant variables to improve growth in Nigeria.

Okoro (2013) investigated the impact of government spending on the Nigerian economic growth for the period of 32years (1980-2011). Employing the ordinary least square multiple regression analysis of co-integration technique, the researcher discovered that there exists a long-run equilibrium relationship between government spending and economic growth in Nigeria.

Oni, Aninkan and Akinsanya (2014) studied the joint effects of capital and recurrent expenditures of government on the economic growth of Nigeria from 1980-2011, using the ordinary least square method for estimating multiple regression models. The regression results showed that both capital and recurrent expenditures impacted positively on economic growth during the period of study. The recurrent expenditure has a stronger and more accelerating effect on growth than capital expenditure.

Mitchell (2005) studied the impact of government spending on economic growth in America. Using economic theory and empirical, the researcher concludes that a large and growing government is not conducive to better economic performance. Indeed, reducing the size of government would lead to higher incomes and improve America's competitiveness.

Mutiu and Olusijibomi (2013) studied the relationship between public expenditure and economic growth in Nigeria from 1970 to 2009. The study used Gregory-Hansen structural breaks co-

integration technique on a disaggregated public expenditure level and found that economic growth and development are the main objectives of government expenditure.

Uguru (2016) empirically examined the relationship between public debt and government expenditure in Nigeria from 1980 to 2013. The data used was purely secondary data sourced from Central Bank of Nigeria Statistical Bulletin for various years. The study employed the ordinary least square regression technique and found that there is a significant relationship between public debt and government expenditure in Nigeria.

Edame (2014) critically analyzed the trends of public expenditure on infrastructure and economic growth in Nigeria, from 1970 to 2010. The study examined the trend in public expenditure on infrastructure in Nigeria between 1970 and 2010, and compared the trend in public expenditure between the various regimes in Nigeria between 1970 and 2010.

 Odhiambo (2015) studied the dynamic causal relationship between government expenditure and economic growth, using data from South Africa, the apparently most advanced economy in Africa. The study employed auto-regressive distributed lag model (ARDL)-bounds testing approach to examine this linkage. The study found that, although both government expenditure and economic growth Granger-cause each other in the short run but in the long run, it is economic growth that Granger-causes government expenditure.

Mohsen and Nafise (2016) investigated the causal relationship between government expenditure and GDP for MENA region countries. They used panel unit root tests and panel co-integration analysis for the period 1970-2010. The results showed a strong causality from economic growth to government expenditure in these countries. However, government spending does not have any significant effects on GDP.

METHODOLOGY

This study adopted *ex-post facto* design. It uses annual time series data extracted from the central bank of Nigeria statistical bulletin and annual report. The data used is annual time series data which covered from 1986-2014. It is an *ex-post facto* design because the study variables are already documented facts which the researcher has no capacity to either change or manipulate. The study is on the impact of federal government expenditure on economic growth in Nigeria, using money supply as control variable. For the data analyses, the study used descriptive statistics and a scatter plot, and employed ordinary least squares (OLS) multiple regression techniques. This is because the OLS is the best linear unbiased estimator (BLUE) in the classical linear regression model (CLRM). Breusch Godfrey advanced autocorrelation unit root test was performed to avoid running a spurious regression.

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MODEL SPECIFICATION

Generally, the multiple regression function states that

$$Y_t = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_{n} + U \qquad \dots\dots\dots\;\dots\dots\dots\dots\;(1)$$

Here, the gross domestic product in Nigeria is a function of government capital expenditure, government recurrent expenditure and money supply.

$$GDP_t = f\,(GCEXP_t,\, GREXP_t,\, MS_t) + U_t \; \dots\dots\dots\dots\dots\dots\dots\dots\;\dots\dots\dots\; (2)$$

Such that

$$GDP_t = \beta_0 + \beta_1 GCEXP_t + \beta_2 GREXP_t + \beta_3 MS_t + U_t$$

$$GDP_t = \beta_o + \beta_1 GCEXP_t + \mu_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots. (3)$$

Where,

GDP_t = Gross domestic product at time t, (Dependent variable).

$GCEXP_t$ = Government capital expenditure at time t, (Independent variable).

$GREXP_t$ = Government recurrent expenditure at time t, (Independent variable).

MS_t = Money supply at time t, (Control variable).

β_o = Constant

β_1, β_2, and β_3, are the regression parameters or the coefficients of GCEXP, GREXP, and MS in the regression equation.

μ_t = Stochastic error associated with the model

DATA ANALYSIS

Table 1: Descriptive Statistics of the variables under study

Variable	Mean	Std. Dev.	JB-stat	p-value	No. of Obs.
GDP	18249.97	26344.76	14.39	0.0008	29
CEXP	471.40	560.26	72.16	0.0000	29
REXP	1027.88	1193.13	4.95	0.0841	29
MS	3779.33	5364.35	8.96	0.0113	29

Source: Author's computation (See Appendix II)

Table 1 describes the variables under study. The result of the central tendency (mean and standard deviation) indicates a wide variation among the data set while the Jarque-Bera statistics which measures the goodness of fit of the dataset shows that with exception of government recurrent expenditure, all the variables of study follows a normal and smooth distribution.

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Table 2: Summary of Unit Root Test

Variable	ADF-Stat.	Critical Values @ 5%	p-value	Order of Integration
LGDP	-5.25**	-3.59	0.0012	I(1)
LCEXP	-5.49**	-3.59	0.0007	I(1)
LREXP	-7.81**	-3.59	0.0000	I(1)
LMS	-5.46**	-3.61	0.0010	I(1)

**indicates stationarity at 5% level;

The Unit root test results in table 2 indicates stationarity of the dataset at order one (i.e., I(1)).

Fig. 1: A scatter plot of Gross Domestic Product and the different forms government expenditure and money supply
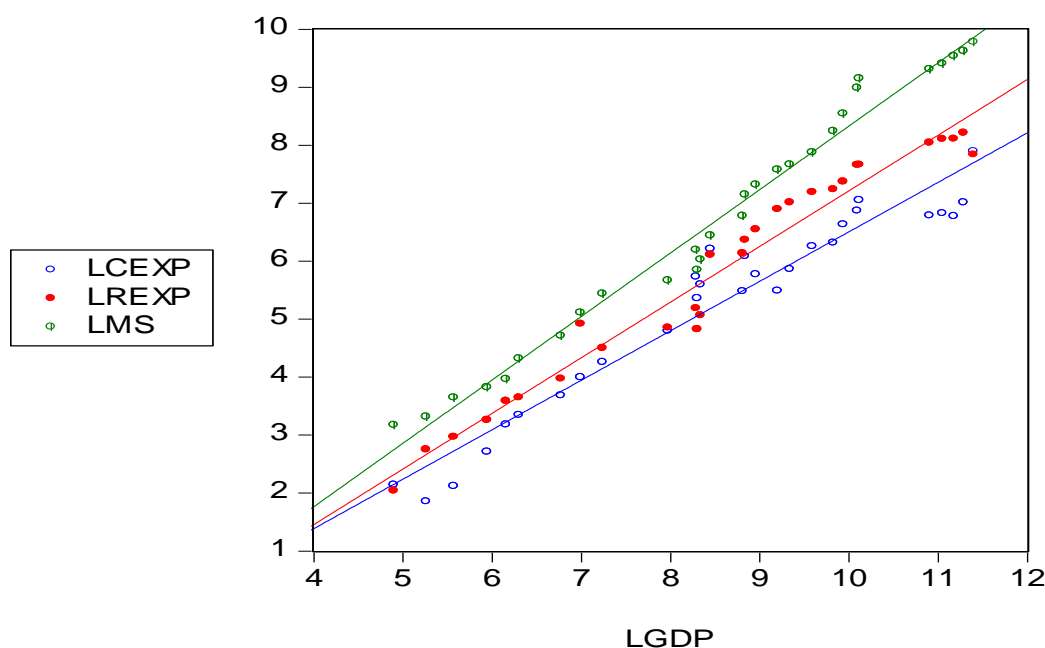
Source: Author's Computation

The scatter plot in figure 1 suggests positive relationships between economic growth and federal government expenditure and money supply in Nigeria.

EMPIRICAL (OLS) RESULTS

$LGDP_t$ = 2.468 + 0.262$LCEXP_t$ + 0.043$LREXP_t$ + 0.660LMS_t

S.E. = (0.090)   (0.155)   (0.142)

T^* = [2.908][0.281]   [4.643]

$R^2 = 0.987$

$\overline{R}^2 = 0.985$

F − Statistic = 633.207

F- Probability = 0.0000

D- W = 1.051

Source: Author's computation (See Appendix III

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INTERPRETATION OF RESULTS

The regression results above show that government expenditure (capital and recurrent) and broad money supply have positive linear relationship with economic growth in Nigeria. Particularly, the government capital expenditure with a coefficient value of 0.262, t-statistic value of 0.090 and associated probability value of 0.0075 < 0.05 has a significant positive effect on the growth of Nigerian economy. The results further show that a 100% increase in value of government capital expenditure will lead to about 26.2% increase in the growth of Nigerian economy.

The government recurrent expenditure with a coefficient value of 0.043; t-statistic value of 0.281 and associated probability value of 0.7811 has a non-significant positive effect on economic growth in Nigeria with a 100% increase in value of recurrent expenditure leading to about 4.3% increase in economic growth in Nigeria. Broad money supply with a coefficient value of 0.660 indicates that a 100% increase in the volume of money supply will result to about 66% increase in the growth of Nigerian economy. The t-statistic value of 4.643 and associated probability value of 0.0001 < 0.05 shows that money supply positively and significantly affects economic growth in Nigeria. The F-statistics (F = 633.207; p = 0.0000) which measures the collective effect of the explanatory variables in the model indicates that the explanatory variables have joint significant effect on the growth of Nigerian economy. The adjusted R-squared statistics which measures the goodness of fit of the model indicates that about 98.9% of the variations in economic growth can be explained by selected explanatory variables in the model. While the Durbin Watson statistic value of 1.051 following the rule of thumb indicates that there is serial correlation present in the model, hence, the need for higher order autocorrelation tests.

Breusch-Godfrey Serial Correlation LM Test

F-statistic	1.726257	Prob. F(5,20)	0.1746
Obs*R-squared	8.742441	Prob. Chi-Square(5)	0.1198

Source: Author's computation (See Appendix IV)

The Breusch Godfrey serial correlation LM test for higher order autocorrelation was performed to override the first order autocorrelation test. The B-G statistic value of 1.726 with associated probability value of 0.1746 shows that there is no REMAINING SERIAL CORRELATION IN THE MODEL.

FINDINGS, CONCLUSION AND RECOMMENDATIONS

The regression results show that government expenditure (capital and recurrent) and broad money supply have positive linear relationship with economic growth in Nigeria. Particularly, the government capital expenditure with a coefficient value of 0.262, t-statistic value of 0.090 and associated probability value of 0.0075 < 0.05 has a significant positive effect on the growth of Nigerian economy. The government recurrent expenditure with a coefficient value of 0.043; t-statistic value of 0.281 and associated probability value of 0.7811 has a non-significant positive effect on economic growth in Nigeria.

From the empirical analysis, given the period under study, one can safely conclude that increase in government capital expenditure leads to increase in economic growth and, increase in government recurrent expenditure also impacts positively on the economy.

The researcher, however, recommends that the Independent Corrupt Practices and other Related Offences Commission and the Economic and Financial Crimes Commission should be reformed and strengthened in order to promote transparency in the conduct of government spending. The Nigerian government should also adopt a public medium term expenditure framework to ensure predictable and sustainable public expenditure at all levels of government.

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APPENDIX 1: TRANSFORMED DATA FOR THE ANALYSIS

YEARS	GDP	TGEXP	CEXP	REXP	MS
1986	134.60	16.22	8.53	7.70	23.81
1987	193.13	22.02	6.37	15.65	27.57
1988	263.29	27.75	8.34	19.41	38.36
1989	382.26	41.03	15.03	25.99	45.90
1990	472.65	60.27	24.05	36.22	52.86
1991	545.67	66.58	28.34	38.24	75.40
1992	875.34	92.80	39.76	53.03	111.11
1993	1089.68	191.23	54.50	136.73	165.34
1994	1399.70	160.89	70.92	89.97	230.29
1995	2907.36	248.77	121.14	127.63	289.09
1996	4032.30	337.22	212.93	124.49	345.85
1997	4189.25	428.22	269.65	158.56	413.28
1998	3989.45	487.11	309.02	178.10	488.15
1999	4679.21	947.69	498.03	449.66	628.95
2000	6713.57	701.06	239.45	461.60	878.46
2001	6895.20	1018.03	438.70	579.30	1269.32
2002	7795.76	1018.16	321.38	696.80	1505.96
2003	9913.52	1225.97	241.69	984.30	1952.92
2004	11411.07	1426.20	351.25	1110.64	2131.82
2005	14610.88	1822.10	519.47	1321.23	2637.91
2006	18564.59	1938.00	552.39	1390.10	3797.91
2007	20657.32	2450.90	759.28	1589.27	5127.40
2008	24296.33	3240.82	960.89	2117.36	8008.20
2009	24794.24	3452.99	1152.80	2127.97	9411.11
2010	54612.26	4194.58	883.87	3109.44	11034.94
2011	62980.40	4712.06	918.55	3314.44	12172.49
2012	71713.94	4605.39	874.84	3325.16	13895.39
2013	80092.56	5185.32	1108.39	3689.08	15160.29
2014	89043.62	4578.06	2681.08	2530.34	17680.52

Source: *CBN Statistical Bulletin for Various issues*

APPENDIX 11: DESCRIPTIVE STATISTICS

Statistics	GDP	CEXP	REXP	MS
Mean	18249.97	471.4014	1027.876	3779.331
Maximum	89043.62	2681.080	3689.080	17680.52
Minimum	134.6000	6.370000	7.700000	23.81000
Std. Dev.	26344.76	560.2584	1193.132	5364.353
Jarque-Bera	14.38563	72.15678	4.951568	8.959360
Probability	0.000752	0.000000	0.084097	0.011337
Observations	29	29	29	29

SOURCE: E-view

APPENDIX III: REGRESSION RESULT

Dependent Variable: LOG(GDP)
Method: Least Squares
Date: 11/22/16   Time: 19:21
Sample: 1986 2014
Included observations: 29

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.467851	0.146075	16.89442	0.0000
LOG(CAPEX)	0.261984	0.090085	2.908198	0.0075
LOG(RECEXP)	0.043411	0.154508	0.280960	0.7811
LOG(MS)	0.659554	0.142044	4.643311	0.0001

R-squared	0.987010	Mean dependent var		8.519682
Adjusted R-squared	0.985452	S.D. dependent var		1.922656
S.E. of regression	0.231904	Akaike info criterion		0.042454
Sum squared resid	1.344485	Schwarz criterion		0.231047
Log likelihood	3.384411	Hannan-Quinn criter.		0.101519
F-statistic	633.2069	Durbin-Watson stat		1.050658
Prob(F-statistic)	0.000000			

APPENDIX IV: HIGHER ORDER AUTOCORRELATION TEST

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.726257	Prob. F(5,20)	0.1746
Obs*R-squared	8.742441	Prob. Chi-Square(5)	0.1198

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 11/22/16   Time: 19:20
Sample: 1986 2014
Included observations: 29
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.074513	0.150339	0.495632	0.6256
LOG(CAPEX)	0.041113	0.133416	0.308158	0.7611
LOG(RECEXP)	0.097428	0.158979	0.612834	0.5469
LOG(MS)	-0.130035	0.175022	-0.742964	0.4661
RESID(-1)	0.394344	0.257787	1.529731	0.1417
RESID(-2)	-0.157850	0.261565	-0.603483	0.5530
RESID(-3)	-0.181927	0.261927	-0.694572	0.4953
RESID(-4)	-0.260375	0.275015	-0.946768	0.3551
RESID(-5)	-0.139988	0.300009	-0.466612	0.6458

R-squared	0.301463	Mean dependent var	-1.81E-15
Adjusted R-squared	0.022049	S.D. dependent var	0.219129
S.E. of regression	0.216699	Akaike info criterion	0.028514
Sum squared resid	0.939172	Schwarz criterion	0.452847
Log likelihood	8.586545	Hannan-Quinn criter.	0.161410
F-statistic	1.078911	Durbin-Watson stat	1.941563
Prob(F-statistic)	0.416055		