

Relative Potency of Internal and External Sources of Financing Nigerian Economic Growth: 1983-2012

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Abstract: *The study is aimed at determining the relative potency of internal and external sources of financing economic growth in Nigeria using time series data from 1983 to 2012. Ordinary least square regression method, unit root test, Johansen cointegration test and error correction model were used for the purpose of analyses. Gross national saving, internal debt, grants and foreign investment are stationary at level, gross domestic investment at first difference and gross domestic product at second difference. From the over parameterized ECM, none of the internal and external financing options is significant in explaining economic growth. In the group of internal options, gross national saving, gross domestic investment and internal debt contribute positively to growth in the short and long run, the only exception being gross national saving in the short run. In the group of external options however, only grant contribute positively to growth in the long and short run. Foreign direct investment appears like a wolf in sheep's clothing given its long run negative impact. Finally, growth is a decreasing and an increasing function of external debt in the short and long run respectively. It is noteworthy that a very high constant coefficient implies that there are many factors that actually determine Nigerian gross domestic product outside the model. While the variables of interest are theoretically expected to play significant roles, they fail empirically. A comparison of the two modes shows that internal factors prove to be more reliable in accelerating Nigerian economic growth.*

Keywords: *domestic saving; domestic investment; internal debt; grant; foreign direct investment; external debt.*

I. Introduction

Money answers all things goes the biblical saying. In spite of the large presence of labour in most developing economies, shortage of capital has always been identified as a crucial limiting factor in the process of development. While the development may not be a singular function of capital, yet other factors can be made available by increase in capital stock. Development usually necessitates large volume of real investment and investment requires increased domestic saving. Domestic saving is often regarded as one important source of investment because foreign aid with the exception of grants involves repayment plus interest or profit repatriation hence a future burden. This saving depends on the readiness of citizens to sacrifice consumption now in anticipation of future consumption. As a matter of fact, such saving for a developing economy is usually not enough for the level of investment that is necessary to ensure development. Alternative to this saving is foreign financial aid which may come in the form of foreign direct or portfolio investment, concessional loans, or grants. The ultimate aim of any foreign assistance is to transform or contribute to economic welfare of the recipient. Also, government in financing her portion in economic development does borrow from local or foreign sources. Suffice to say that financing economic development is not only internal or external in nature but the two are complementary.

Studies have evaluated the impact of internal and external debt on growth, domestic and foreign investment on growth as well as the effect of savings and aid on growth in Nigeria. Review of literature shows that, apart from the fact that the empirical findings are conflicting, it can also be observed that no single study has attempted to evaluate all these internal and external sources of financing growth jointly. In recognition of this, the current study intends to build a comprehensive model that incorporates these factors with the aim of determining which is more potent of the internal and external sources in financing growth. This paper is organized into five sections. In section two is a brief review of theoretical and empirical literature. Section three presents the research method while section four gives the results of the analyses and the interpretation. In the last section are findings, conclusion and recommendations.

II. Literature Review

Theoretical Framework

The study is underpinned by two gap model of public financial aid which is an extension of Harrod Domar (1946) theory. The first dimension of the model argues that development is a function of investment. In economic theory, savings (S) is a function of and must be equal to investment (I) were there is no leakage (i.e. $S = I$). However this argument is relaxed in the discussion of economic growth and development as theorists underline the need for a transfer of resources in order to achieve target rate of investment or economic growth. That is the second dimension of the model is that growth depends on more investment occasioned by transferred resources or its supplementary role. This transfer is otherwise known as foreign aid (A). Aid becomes necessary because the available domestic resources (savings) are not sufficient to acquire capital goods (investment) that is necessary to achieve desired rate of growth. Thus there exists saving investment gap which must be bridge by foreign aid. In order words:

$S \neq I$ which implies that $I > S$ such that $I - S = A$

If a country undergoing development process resorted to foreign financial aid as the only way to bridge saving investment gap, this capital inflow will appear in national accounting as excess of import (M) over export (X). In order words:

$X \neq M$ which implies that $M > X$ such that $M - X = A$

External resources provide a means of filling these two gaps in order to achieve the target growth rate of the economy (Chenery & Strout, 1956). Foreign resources when added to domestic savings guarantees the level of investments by which growth is attained.

$G = f(S + A)$

Dual gap model summarily argues that growth is a function of investment that depends on domestic savings and foreign financial aid. Aid ranges from concessional lending, direct investment and official development assistance (ODA). In public finance, the payment for government businesses may be equal to, less than or more than the receipts. That is a nation is either running a balance, surplus or deficit budget respectively. Deficit is a feature of developing economies and the domestic or foreign sources of financing it are internal debt and external debt. Nigerian governments have relied on these sources in financing her share in economic development.

Empirical Review

Saving and Economic Growth

Nwakeze and Omoju, (2011) employ error correction model of regression analysis to analyze data from 1980 to 2007. The study concludes that income and rapid population growth have positive and inverse significant effect respectively on savings. Adopting policy enhancing intermediation between savings and investment in the economy will boost growth. Akinbobola and Ibrahim (2011) submit following a qualitative analysis and conclude that Nigeria economy mobilizes domestic savings far better than it channels the same for investment purposes. Abu (2010) in a study covering the period between 1970 and 2007 affirms that economic growth precedes and granger causes saving and that they cointegrate in the long-run. Saving rate rises by growth rate of disposable income and real interest rate on bank deposits. Public saving encourages private saving while the degree of financial depth has a negative but weak influence on saving (Nwachukwu and Odigie, 2009).

The growth of Nigeria economy requires an increase in National saving via increased deposit rate. Nwaowi (2010) using data between 1970 and 2007 and Ordinary Least Square method concludes that national savings is not significant but positive and it granger causes real gross domestic product. The investment as one of the explanatory variables is significant and supports the idea that most of the investments in Nigeria are not from savings. Musa, Iyaji and Success (2014) employ classical least squares, Error-Correction modeling, co-integration, granger causality and stationarity test. They submit that while money supply and per capita income are strong determinants of private domestic savings, private domestic savings and commercial banks credit to private sector determine economic growth. Onu (2012) uses multiple regression technique and discovers that saving exerts positive and significant impact on gross domestic product. Distributed Lag-Error Correction Model was applied by Anthony (2012) who concludes that there is a positive influence of values of GDP per capita, Financial Deepening, and Interest Rate Spread on private domestic savings. More importantly private domestic savings exert positively on economic growth.

Domestic Investment and Economic Growth

Ugwuegbe, Okore and John (2013) based on regression result, declare that domestic investment accounts for the growth witnessed in Nigeria's economy between 1981 and 2009, hence a major factor in the process of development. Nwaowi (2010) concludes that most of the investments in Nigeria are not from savings and that the investment is significant in determining Nigerian economic growth. Using ordinary least square method, Ugwuegbe et al (2013) conclude that foreign direct investment has a positive but weak effect on economic growth while domestic investment has a positive and significant impact on economic growth. Saibu (2012) specifies model that incorporated energy as a separate and an indirect input. The study shows that the ability of investment to enhance economic growth is significantly depressed by overdependence on energy resources. Usman and Yusuf (2010) in their study find stationarity at first differencing, no long-run relationship or causality between foreign and domestic investment, and between public debt and debt service with domestic investment. They conclude that gross increase in foreign direct investment flow tends to crowd out domestic investment.

Internal Debt and Economic Growth

Ebi, Abu and Clemen (2013) using error correction methodology conclude that external debt is superior to domestic debt in relation to economic growth, but inferior in relation to domestic investment in Nigeria hence the need to resort to domestic market-based borrowing to stimulate investment. Applying OLS, ADF and Granger causality in their investigation, Aminu, Ahmadu and Salihu (2013) find stationarity, a bi-directional causation between external debt and GDP, zero causation between domestic debt and GDP and between external debt and domestic debt. External debt exerts a negative impact on economic growth while domestic debt impacts positively on economic growth.

Adofu and Abula (2010) use OLS regression and conclude that domestic debt has negative but insignificant effect on economic growth. Also, Ordinary Least Squares Method (OLS) and Error Correction show that the domestic debt holding is too high relative to bank deposit and has a negative impact on private investments with a concomitant negative effect on economic growth (Charles, 2008). Udoka and Ogege (2012) discover that Nigeria public debt is inimical to development and hence should be reduced to the barest minimum following a study covering 1970 to 2010. As error correction framework reveals, while total debt is positive and significant, the debt service payment exerts negative influence on growth. This together with political instability may reduce rate of development. Obademi (2012) in a study based on augmented Cobb Douglas model and co-integration technique concludes that the joint impact of debt on economic growth is positive in the short run but could depress the economy given their negative and quite significant long-run impact. In Pakistan, Atique and Malik (2012) use Ordinary Least Square and cointegration and conclude that an inverse but significant relationship exist between both debts and economic growth with foreign debt having greater undesirable impact.

Aid and Economic Growth

Ramesh, Norman and David (1993) in a study of developing countries apply augmented Fischer-Easterly model to cross-section and panel data. Their findings support the view that foreign aid does have some positive impact on growth in a stable macroeconomic environment. The study concludes that a positive effect of foreign aid is not significant in low income countries. Abiola and Olofin (2009) apply statistical analysis of time series software and conclude that multilateral aid, food supply, public sector spending on health care and education are the prime determinants of poverty reduction in Nigeria. Simultaneous equation system was used by Basnet (2013) in a study covering Bangladesh, India, Nepal, Pakistan, and Sri-Lanka. It concludes that aid posits a significant positive impact on the growth rates of the five countries under consideration while domestic saving is a reducing function of growth between 1960 and 2008. Conversely, Kolawole (2013) finds no causality between any pair of official development assistance (ODA) and foreign direct investment (FDI) on real growth. The study concludes that a negative relationship exists between FDI and real growth while ODA exerts no impact on real growth in the country. Mbah and Amassoma (2014) based on Johansen Cointegration test affirm that insignificant negative relationship exists between foreign aid and GDP, hence a need to ensure that foreign aid flows are invested into developmental projects that will alleviate poverty level.

External Debt and Economic Growth

Sulaiman and Azeez (2012) using Error Correction Method (ECM) conclude that external debt has contributed positively to the Nigerian economy between 1970 and 2010. Similarly, Eravwoke and Oyovwi (2013) conclude based on Ordinary least squares Results that long-run relationship exists and that economic growth respond positively to rise in external debt burden, foreign direct investment, inflation and export. On the other way round, use of concessional debt with lower interest rate and debt relief would safe Nigeria from the menace of debt. Adam (2003) concludes that external debt maintains an inverse relationship with growth and the burden is apparently unsustainable as a result of high initial debt stock, high interest rate, lower real GDP

growth, and large trade deficits. Rising level of external indebtedness explains devaluation of the naira, retrenchment and regular industrial strike and consequent economic depression. Ajayi and Oke (2012) note and conclude that external debt burden has an adverse effect on the nation income and per capital income of the nation. Ezeabasili, Isu and Mojekwu (2011) confirm stationarity and co integration among the variables while error correction estimates reveals that economic growth in Nigeria is a reducing function of external debt. These relationships were both found to be significant at ten per cent level.

Foreign Direct Investment and Economic Growth

In a study within the period 1986-2007, Onu (2012) based on multiple regression results concludes that foreign direct investment, government tax revenue and savings exert positive but insignificant impact on GDP during the study period. Egwaikhide (2012) applies Johansen cointegration technique and vector error correction methodology and concludes that the impact of the disaggregated FDI on real growth in Nigeria is not significant. Maji and Odoba (2011) use liner regression and conclude that foreign direct investment has a positive impact on gross domestic product. Ayanwale(2007) concludes based on ordinary least square regression that the movers of foreign direct investment in Nigeria are market size, infrastructure development and stable macroeconomic policy and that while the overall effect of FDI on economic growth may be weak, it does have a positive impact. Labour force and human capital play significant positive role in the growth process. Akinlo (2004) using error correction modeling concludes that though positive, both private capital and lagged foreign capital are not statistically significant in explaining economic growth but export does. Foreign direct investment is passive in the process of economic growth in Nigeria. Olusanya (2013) causality test in a pre and post deregulated Nigerian concludes that economic growth motivates foreign direct investment in the pre-deregulation era and appears to be indifferent in the post-deregulation period. Overall, there is a one-way relationship between foreign direct investment and economic growth which flows from economic growth to foreign direct investment.

III. Research Method

Design, Data, Sources and Description

The study is aimed at establishing the type and significance of relationship that exist between internal and external financing and Nigerian economic growth. The research design for the study is correlation and ex-post facto research design. The data used for the study were obtained from secondary source and are inherently non-manipulable for the researcher. The dependent variable is gross domestic product. It represents the monetary value of goods and services produced by the people in an economy during a period of time, nationality notwithstanding. Real GDP or GDP at constant basic price was used. While gross national saving, gross domestic investment, internal debt are regarded as internal factors, grant, foreign direct investment and external debt are external and all represent the explanatory variables. They were sourced from section B, C and D of Central Bank of Nigeria statistical bulletin. Gross national savings is defined as public plus private savings. It is given as gross domestic investment plus the net exports of goods and services. Gross domestic investment is the total increase in the value of fixed assets plus increase in stocks. Internal debt is the domestic source of meeting government deficit in expenditure on the understanding that the borrowed fund shall be repaid in future. External debt covers foreign liabilities incurred by government which are to be fully repaid with associated interest in the future. Grants are non-compulsory, non-repayable unrequited receipts from other governments and international institutions while foreign direct investment involves the creation by foreigners, of permanent controlling interest of 10% and above in an enterprise in Nigeria.

Estimation Technique

Ordinary Least Square (OLS) method is used for the analysis. Non-stationarity of most time series data leads to Augmented Dickey Fuller (ADF) unit root test, as a guide against spurious regression result. While the johansen cointegration test is employed in determining the existence of long-run cointegration among the variables, we apply Error Correction Model (ECM) for determination of short run dynamics and to ensure the correction spurious regression outcome on time series data. Reliability of the predictors, fitness of model and adherence to OLS rule are checked using T-test/standard error test, F-test and Durbin Watson test respectively.

Model Specification

Ordinary Least Square

$$GDP_t = \beta_0 + \beta_1 GNS_t + \beta_2 GDI_t + \beta_3 INTD_t + \beta_4 GRNT_t + \beta_5 FDI_t + \beta_6 EXTD_t + U_t \dots \dots \dots (1)$$

Where:

GDP = gross domestic product

GNS = gross national saving

GDI = gross domestic investment

INTD = internal debt

GRNT = grant
 FDI = foreign direct investment
 EXTD = external debt
 U = stochastic error term
 β_0 = constant and β_1--6 = coefficients of independent variables
 t = time series

Augmented Dickey-Fuller Tests

ADF unit root test developed by Dickey and Fuller (1979) is used to determine the time series characteristics and order of integration of the variables. This is based on this model:

$$\Delta Y_t = \delta_0 + \lambda Y_{t-1} + \beta_1 \Delta Y_{t-1} + \epsilon_t \text{ (with intercept)} \dots\dots\dots (2)$$

$$\Delta Y_t = \delta_0 + \lambda Y_{t-1} + \delta_1 t + \beta_1 \Delta Y_{t-1} + \epsilon_t \text{ (with trend)} \dots\dots\dots (3)$$

Y_t represent the value of each variable and t-statistics is used to test the null hypothesis. A variable that is not stationary at level will be differenced d times.

Johansen Co-integration Test

It is necessary to determine whether the variables in equation (1) are linearly stationary. The two test statistics proposed by Johansen are:

$LR_{trace}(r) = -T \ln(1-\lambda)$ the trace statistics and

$LR_{max}(r, r+1) = -T \ln(1-\lambda_{r+1}) = LR_{trace}(r+1)$ the maximum eigen value statistic

Where r is the number of cointegrating vector and λ is the estimated value for i^{th} Eigen value.

Error Correction Mechanism

The error Correction Mechanism is employed to investigate the short-run dynamics in the relationship between market capitalization, gross capital formation, value of transaction and number of listed securities. From equation (3), the error correction model (ECM) can be specified as:

$$\Delta GDP_t = \beta_0 + \beta_1 GNS_{t-1} + \beta_2 GDI_{t-1} + \beta_3 INTD_{t-1} + \beta_4 GRNT_{t-1} + \beta_5 FDI_{t-1} + \beta_6 EXTD_{t-1} + \beta_7 ECM_{t-1} + \Sigma t \dots\dots\dots (4)$$

Where:

ECM_{t-1} = Error correction term

t-1 shows the variables were lagged by one period

Σt = white noise residual

in any case, a positive relationship is expected between GDP and explanatory variables. This can be summarized as: $B_1 > 0, B_2 > 0, B_3 > 0, B_4 > 0, B_5 > 0,$ and $B_6 > 0$.

IV. Empirical Results

Table 4.1: OLS Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	224758.2	10340.49	21.73573	0.0000
GNS	0.013358	0.010191	1.310805	0.2029
GDI	-0.038071	0.026292	-1.448021	0.1611
INTD	0.092442	0.014504	6.373493	0.0000
GRNT	1.076691	0.194365	5.539526	0.0000
FDI	-0.053174	0.127642	-0.416586	0.6808
EXTD	0.003494	0.005800	0.602363	0.5528

$R^2 = 0.9775, Adj. R^2 = 0.9717, F\text{-stat.} = 166.8450 (0.000000), DW = 0.958249$

Source: Computation Using E-Views Statistical Package, version 7.0

It is evident from OLS result in table 4.1 that there is autocorrelation in the data. This violation of OLS assumption necessitates a test for unit root.

Unit Root Test

This test is aimed at determining the stationarity of the variables using the Augmented Dickey-Fuller (ADF) Unit root test. Here the condition for stationarity of variables is that the ADF test statistic must be greater than critical value at 5%.

Table 4.2: Summary of Unit root Test

Variable	ADF statistics	Critical values	Order of integration	Remarks
GDP	-7.328329	-2.976263	1(2)	Stationary
GNS	5.866069	-3.004861	1(0)	Stationary
GDI	7.935200	-2.998064	1(1)	Stationary
INTD	5.747582	-2.976263	1(0)	Stationary
GRNT	-3.461677	-3.004861	1(0)	Stationary
FDI	-3.461677	-3.004861	1(0)	Stationary
EXTD	-3.357171	-2.971853	1(1)	Stationary
ECM	-5.088417	-3.004861	1(2)	Stationary

Source: Computation Using E-Views Statistical Package, version 7.0

The result of the ADF in table 4.2 shows that GDP, GDI and EXTD and ECM are not stationary at level. Further test shows that GDI and EXTD are stationary at first difference while GDP and ECM become stationary at second difference. Having established the stationary of variables with respect to time, the study proceeds to long-run equilibrium test using Johansen Cointegration technique.

Cointegration Test

Here the objective is to determine whether long-run equilibrium relationship exists among the variables in the model. Here the decision rule is that the trace statistic must be greater than the 5% critical value at none hypothesized.

Table 4.3.1: Trace and Max-eigen value test

Hypothesized No. Of CE(s)	Eigen value	Trace Statistic	5% Critical Value	Prob.**	Max-Eigen Statistic	5% Critical Value	Prob.**
None *	0.996728	403.9362	125.6154	0.0000	160.2258	46.23142	0.0000
At most 1 *	0.963742	243.7104	95.75366	0.0000	92.87861	40.07757	0.0000
At most 2 *	0.905668	150.8318	69.81889	0.0000	66.10630	33.87687	0.0000
At most 3 *	0.808784	84.72550	47.85613	0.0000	46.32178	27.58434	0.0001
At most 4 *	0.637657	38.40372	29.79707	0.0040	28.42460	21.13162	0.0039
At most 5	0.298178	9.979123	15.49471	0.2823	9.914107	14.26460	0.2176
At most 6	0.002319	0.065016	3.841466	0.7987	0.065016	3.841466	0.7987

Trace test indicates 5 cointegrating eqn(s) at the 0.05 level

Max-eigen value test indicates 5 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: Computation Using E-Views Statistical Package, version 7.0

Table 4.3.2: Normalized Cointegration Equation (standard error in parentheses)

GDP	GNS	GDI	INTD	GRNT	FDI	EXTD
coefficients	-1.445497	9.555684	-2.109413	6.969399	5.377133	0.025733
coefficient/2	-0.7227485	4.777842	-1.0547065	3.4846995	2.6885665	0.0128665
stand. error	(0.05338)	(0.31887)	(0.07767)	(1.02273)	(0.47331)	(0.01779)

Source: Computation Using E-Views Statistical Package, version 7.0

Table 4.3.1 shows that long-run equilibrium relationship exists among the variables as trace and max-eigen statistics are greater than the 5% critical value at non hypothesized. Johansen cointegration test produces five equations out of which one (in table 4.3.2) is chosen based on the highest log-likelihood. It can be seen that GNS and INTD have negative relationship with GDP. Keeping other variables aside, unit increase in GNS and INTD will bring about 1.445497 and 2.109413 units decrease in GDP respectively. The remaining variables relate positively with GDP. This means that putting GNS and INTD aside, a unit rise in GDI, GRNT, FDI and EXTD will lead to 9.555684, 6.969399, 5.377133 and 0.025733 units decline in GDP respectively. By comparing the average coefficients with standard error, it is clear that the former is greater with the exception of EXTD. Therefore GNS, GDI, INTD, GRNT, FDI, but EXTD are statistically significant in explaining GDP.

4.4 Error Correction Model

Over parameterized ECM is estimated by setting the lag length long enough as to ensure that dynamics of the model has not been constrained by a too short lag length. The over parameterized ECM is determined by leading and lagging the variables in the specified regression model. For parsimonious ECM, only the insignificant variables are repeated.

Table 4.4.1: Over Parameterized ECM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1),2)	-0.364889	0.230518	-1.582911	0.1394
C	2823.707	2492.018	1.133101	0.2793
D(GNS,2)	-0.003037	0.008708	-0.348770	0.7333
D(GNS(-1),2)	0.001017	0.005387	0.188728	0.8535
D(GDI,2)	0.015891	0.023826	0.666943	0.5174
D(GDI(-1),2)	0.005792	0.021482	0.269639	0.7920
D(INTD,2)	0.007291	0.026599	0.274095	0.7887
D(INTD(-1),2)	0.010724	0.025440	0.421556	0.6808
D(GRNT,2)	0.143443	0.268411	0.534417	0.6028
D(GRNT(-1),2)	0.159461	0.161564	0.986984	0.3431
D(FDI,2)	0.069457	0.077029	0.901697	0.3850
D(FDI(-1),2)	-0.095720	0.076495	-1.251314	0.2347
D(EXTD,2)	-0.000114	0.004728	-0.024200	0.9811
D(EXTD(-1),2)	0.004370	0.005334	0.819256	0.4286
ECM(-1)	-0.306311	0.134578	-2.276090	0.0420

$R^2 = 0.731090$, $Adj. R^2 = 0.417362$, $DW = 1.804925$

Table 4.4.2 Parsimonious ECM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1248.145	2978.250	0.419087	0.6820
D(GNS,2)	-0.014367	0.009689	-1.482788	0.1620
D(GNS(-1),2)	-0.007222	0.006164	-1.171515	0.2624
D(GDI,2)	0.025398	0.027788	0.914001	0.3774
D(GDI(-1),2)	-0.015267	0.025497	-0.598782	0.5596
D(INTD,2)	0.021696	0.031433	0.690229	0.5022
D(INTD(-1),2)	0.040948	0.028423	1.440685	0.1733
D(GRNT,2)	-0.322084	0.310341	-1.037838	0.3183
D(GRNT(-1),2)	0.113852	0.191806	0.593578	0.5630
D(FDI,2)	0.105686	0.087921	1.202057	0.2508
D(FDI(-1),2)	0.077746	0.089475	0.868920	0.4006
D(EXTD,2)	-0.009206	0.005084	-1.810901	0.0933
D(EXTD(-1),2)	0.008608	0.005956	1.445172	0.1721
ECM(-1)	-0.215981	0.150431	-1.435749	0.1747

$R^2 = 0.597289$, $Adj. R^2 = 0.194577$, $DW = 2.393506$

Source: Computation Using E-Views Statistical Package, version 7.0

There is an evidence of long-run relationship among the variables as depicted by correctly signed over parameterized ECM (-0.306311) with a probability value of 0.0420, short-run inconsistencies notwithstanding. This implies that the present value of the dependent variable adjust rapidly to changes in explanatory variables. However the insignificance of explanatory variables leads us further to parsimonious ECM in which again the variables are not statistically significant. The over parameterized ECM produces a better result given the higher R^2 of 73.1%, correctly signed and significant ECM, hence its preference for interpretation. The result shows that only about 30.6% of the short-run inconsistencies have been corrected and incorporated into the long run equilibrium relationship annually. GDI, INTD and GRNT and their one period lagged values, FDI as well as lagged value of GNS and EXTD exert positive influence on GDP. Conversely, the GNS, EXTD and lagged value of FDI exert negative impact on GDP. However all the explanatory variables are weak in determining GDP. The result shows that overall model is fit at 10%. R^2 shows that about 73% of the variations in GDP, 41.7% after adjustment can be explained by the explanatory variables while DW of 1.80 shows that the data are free from serial correlation.

V. Discussion and Implication of Results

The study is carried out to determine which of the internal and external financing choices is more potent in accelerating growth in Nigeria. In the group of internal options, gross domestic investment and internal debt contribute positively to growth in the short and long run. This is in consonant with our *a priori* expectation. Positive saving supports the findings of Onu (2012) and Nwaowi (2010), positive domestic investment supports Ugwuegbe et al (2013) and internal debt support Aminu et al (2013). Only the gross national saving deviates in the short run. Their insignificant contribution indicates that these internal options have not

been adequately exploited to accelerate growth. This may derive from low income that leaves little or nothing to save, lend or invest so as to contribute meaningfully to economic growth; an evidence of vicious circle of poverty. In the group of external options however, only grant contributes positively to growth in the long and short run. This is in compliance with our apriori expectation and it is understandable as grant does not require a repayment or commitment. Being a gift, it does not contribute significantly as the amount tends to be small. Similar studies have used official development assistance and found negative relationship. Foreign direct investment is a wolf in sheep's clothing, though it offers positive impact in the short run as in Onu (2012). Such investment when it matures, it does lead to repatriation of profit to home country even when it would have enjoyed tax concessions and other benefits at the detriment of host country. This explains the long run negative impact which is not consistent with our apriori expectation. Also that growth is a decreasing function of external debt beats our expectation but it is consistent with the work of Ezeabasili, et al (2011) using cointegration and Aminu et al (2013) regression results. This is manifest in un-judicious or unproductive use of borrowed funds that makes it difficult to meet interest and attendant commitments. It must be noted that a very high constant coefficient implies that there are many factors that actually determine Nigerian gross domestic product outside the model. While the variables of interest were theoretically expected to play significant roles, they fail empirically. Internal factors prove to be more relatively reliable in accelerating Nigerian economic growth compared with external financing options.

VI. Recommendation

While the variables of interest were theoretically expected to play significant roles, they fail empirically. A comparison of the two modes shows that internal factors prove to be more reliable in accelerating Nigerian economic growth. Their insignificant contribution indicates that these internal options have not been adequately exploited to accelerate growth. Government should place greater emphasis on the use of domestic modes of financing growth. High cost of living arising from lack of basic social amenities and infrastructure are disincentives to hard work. Households and business/corporate organisations incur a lot of expenses that leave their disposable or net income very low. By creating enabling environment, citizens work and generate income; savings are made and made available for lending and investment purposes. The beauty of this internal financing is that it starts and ends with the country hence the avoidance of international exposures. Charity begins at home goes the usual sayings. In addition, effort in seeking foreign financial assistance in the form of grants must also be intensified as the impact of grant remains positive through the regression, cointegration and error correction methodology.

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