

Impact of External Debt Financing on Economic Development in Nigeria

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Abstract

The concept of debt, whichever type or form, is a major problem militating against African development stride particularly countries like Nigeria. As a result, this paper focused on the impact of external debt financing on economic growth in Nigeria. The data for the study is collected from CBN statistical staple 2012. The data covered 1969-2011. Time series variable properties of the study were stationary and co integration. The VEC model estimate showed that London debt financing possessed positive impact on economic growth while Paris debt, Multila and Promissory note were inversely related to economic growth in Nigeria. The study recommended debt service cancellation and global marketing participation to encourage survival of SMEs in Nigeria.

Keywords: External Debt, Economic growth, Development, Financing, Global Marketing.

1. Introduction

External debt burden in Nigeria can be traced to so many factors in the past which caused the growth of the economy to decline alongside its development. Between the period of 1950 – 1960, Nigeria had a magnificent growth in its economy due to her huge investment in agriculture which was a major source of revenue for the country. This brought about reduction in both internal and external debt. However, in the eighties Nigeria's external debt rapidly escalated as a result of declining oil export earnings.

Heavy external debt burden nevertheless, may have associated with disincentives to invest, which could have contributed to the relatively poor growth performance of Nigeria in the past. Other factors suspected to have contributed to the situation are high inflation, persistent depreciation of exchange rate and huge fiscal deficit. In addition, it is expected that as debt obligations rise, the export earnings available to the domestic economy decrease since some of the export earnings are used to service the debt. This in turn might have indirect affect on government expenditures and therefore negatively affect economic growth.

Deducing the above factors, it seems the debt overhang hypothesis which relates to high debt and debt servicing burden, supports that the accumulated stock of debt acts as a tax on future income and discourages investment by the private sector. Hence as low investment results in a low rate of capital accumulation consequently. It leads to a low rate of growth.

One major issue suspected to have aggravated the Nigeria debt problem is that some of the debt service obligations were in the form of contingent liabilities resulting from Government guarantee of private sector trade transaction that had to be taken on board without adequate planning. Due to mismanagement, wide-scale corruption and default by private sector operators, obligations fell on the Federal Government as explicit contingent liabilities in those instances where it had guaranteed the loan.

Loans for directly productive projects were usually contracted on commercial terms and then went to waste due to lack of monitoring and corruption. Given the foregoing, there is an urgent need to examine the impact of external debt burden on macroeconomic performance and entrepreneurial development in Nigeria.

The debt burden of a country inevitably imposes a number of constraints on its growth prospects. However, it is assumed that such problems are not likely to be solved unless an aggressive approach is applied. There has been an increasing concern on the structure of external debt, debt service requirement and debt management. The

prospect for resumption of voluntary lending and capital flows to the debt distressed less developed countries (LDCs) has been topical issue in the recent time. The debt burden of a country can be said to impose a lot of constraints on the economy by hindering its growth process and economic development. The scope of the study is limited to the period from 1964– 2011 as a result of insufficient data. The objective of the study is an attempt to examine the causes and effects of external debt on macroeconomic performance and entrepreneurial development in Nigeria.

2. Review of Relevant Literature

The issue of external debt in relation to other macroeconomic variables has brought about an increasing literature regarding the determinants of external debt burden and its impact on the economy as well as the public lesions. Anyanwu (2004) stated that total indebtedness and debt service payment have risen over the years which are detrimental to the growth of the economy. Ojo (2004), observed that the magnitude of the debt stock of African countries is accompanied by an equal increase in debt service payment. The policy lesson from Ojo (2004) is that the best strategy for reducing the African debt burden is a radical shift in the continent's debt management strategy.

Oshikoya (2004) investigated the macroeconomic determinants of private investment in some African countries for which adequate statistics were readily available. Raheem (2000) acknowledged the fact that debt management has to be conceived within a comprehensive and macro-policy framework that emphasizes the need to enhance domestic saving rate, generate current account surplus, and improve the efficiency of resource allocation. Raheem (2000) came up with an econometric-based debt management model to determine the levels of debt and balance of payments, as well as their impact on the entire economy.

Essien and Onwiodukokit (2008) suggested that the government should embark on appropriate debt management strategies with feasibility study of projects such as loan acquisition and deployment. The author further stated that project should be financial with feasibility study of projects such as loan acquisition and deployment. The author further stated that projects should be financed with external loans since the potential of economic growth in the country can be improved through external resources invested on viable ventures.

Ndekwi (2003), Pearson (2003), Symonds (2000), Lewis (2006), Singer (2009), Kaldor (1995), and Berger (2005) came to the conclusion that foreign resources transferred to less developed countries will help improve the economies that have low growth rate to grow into economies capable of adequate and sustainable growth. Ndekwi (1996), Wijeweera (2005) found out that international financial institutions and international creditor countries should cooperate and make the various debt management strategies to function effectively.

2.1. The Theory of External Debt Economic Growth

The relationship between foreign debt and economic growth is not a very simple one as one will expect. As a result of the reduction in economic growth via investment, namely debt overhang, this subject matter has attracted the interest of developing countries. They argued that debt overhang is a major and significant factor responsible for slowing down investment. The Debt overhang theory is based on the premise that if debt will exceed the country's repayment ability with some probability in the future, expected debt service is likely to be an increasing function of the country's output level. Thus some of the returns from investing in the domestic economy are effectively taxed away by existing foreign creditors and investment by domestic and new foreign investor is discouraged. Debt servicing, including interest payments and repayments, may also be a real linkage from an indebted country. It takes large benefit from the domestic economy to transfer to the foreign economy. Therefore, the country foregoes some spectacular multiplier-accelerator effects. This decreases the domestic country's ability to grow its economy and raises its dependence on foreign debt (Yucel, 2009 and Tamasehke, 1994).

The scope of debt overhang is much wider in that the effects of debt do not only affect investment in physical capital but any activity that involves incurring costs upfront for the sake of increased output in the future. Such activities include investment in human capital and in technology acquisition whose effects on growth may be even stronger over time. How a debt overhang discourages private investment depends on how the government is expected to raise the resources needed to finance external debt service and whether private and public investment are complementary. For example, if a government resorts to inflation tax or in a capital levy, private investment is likely to be discouraged.

Borenzstein (2000) defines debt overhang as follows: The debt overhang arises in a situation in which the debtor country benefits very little from the return to any additional investment because of debt service obligations. When foreign obligations cannot be fully met existing resources and actual debt payments are determined by some negotiation process between the debtor country and its creditors, the amount of payments can become linked to the economic performance of the debtor country, with the consequence that at least part of the return to any increase in production would in fact be devoted to debt servicing. This creates a disincentive to investment from the point of view of the global interest of the debtor country”.

Other channels through which the need to service a large amount of external obligations affect economic performance include the crowding out effect, due to high real interest rate terms of trade of over borrowed country’s worsens and shut-off from foreign credit market it is expected that investments would have declined because of the decrease in available resources for financing investment and macroeconomic conditions. Moreover, because of a expected higher taxes and deteriorated domestic policies that will affect real returns on investment. Since the debtor country has to pay their debt obligations. This has led to a decrease through decreasing growth rates in investment. Moreover foreign borrowing affects future growth through the effect on interest payments obligation. This causes a higher stock of outstanding debt. This means that external borrowing increases future debt service obligations because the foreign exchange constraint is tightened in the` future (Kamin *et al.*, 1989). In the crowding out effect, a reduction in the debt service should lead to an increase in investment for any given level of future indebtedness, if a greater portion of foreign resources are used to service external debt, very little is available for investment and growth. In summary, the debt overhang hypothesis, external debt cases a negative affect on investment. The debtor country cannot benefit fully from an increase in production (economic growth. A part of the production goes to creditor countries to pay the debt service and this point is a consideration for investment and production decisions.

3. Methodology

In this study various financial reporting fact file of CBN extract data are used to elicit Nigerian debts from the various developed world especially in the Europe and other. The data for the study is collected from the CBN statistically bulletin staple in 2012. The data covered 1964 to 2011. Analysis for this study adopts econometrics techniques such as Unit root, Co integration, Vector Error Correction Model and Graph. The analysis is conducted electronically with the use of E-Views 4.0.

3.1. Model Specification

Specifically, modelling for this study is very essential, the model for the evaluation of impact of external debt financing on economic growthin Nigeria is as follows:

$$f(GDP, L, P, M, PR) \tag{1}$$

$$DGDP_{t+1} = \alpha_0 + \alpha_1 DL_{t-1} + \alpha_2 DP_{t-1} + \alpha_3 DM_{t-1} + \alpha_4 DPR_{t-1} + \delta(-1) + \varepsilon_t \tag{2}$$

$$GDP_{t+1} = \alpha_0 + \alpha_1 L_{t-1} + \alpha_2 P_{t-1} + \alpha_3 M_{t-1} + \alpha_4 PR_{t-1} + \delta(-1) + \varepsilon_t \tag{3}$$

Where: GDP is Gross Domestic Product, L is the London Debt, P is Paris Debt, M is Multila Debt and Promissory Note.

The aprior expectations for the study is defined as: α_0 is constant, $\alpha_1 < 0$, $\alpha_2, \alpha_3, \alpha_4 > 0$ and ε_t is the error term.

4. Discussion of Empirical Result

Empirical analysis for this study is shown and discussed as follows:

Table1: Unit Root Result usig ADF test

Variables	ADF	Critical Value at 5%	Decision	Conclusion
GDP(I)	-3.2155	-2.9499	No unit root	Stationary
L(I)	-3.4558	-2.9499	No unit root	Stationary
P(I)	-3.5528	-2.9527	No unit root	Stationary
M(I)	-3.3114	-2.9378	No unit root	Stationary
PR(I)	-3.3435	-2.9665	No unit root	Stationary

Sig. ADF value > Critical Value at 5%. Source: E-Views 4.0

From table 1 result above, the calculated values of the time serial properties of the variables are greater than the critical value of 5% level at order I. The result suggests that there is no presence of unit root. Hence, there is strong evidence that the time series properties are stationary at order 1. This confirm the co integration test using Johansen approach.

4.2 Table 2 Johansen Co integration Test Result

Co integration

Date: 02/08/13 Time: 20:26

Sample: 1963 2011

Included observations: 33

Test

assumption:

Linear

deterministic

trend in the data

Series: GDP L P M PR

Lags interval: No lags

Eigenvalue	Likelihood Ratio	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No. of CE(s)
0.875033	135.3344	68.52	76.07	None **
0.705340	66.70414	47.21	54.46	At most 1 **
0.465642	26.38033	29.68	35.65	At most 2
0.152486	5.699603	15.41	20.04	At most 3
0.007241	0.239813	3.76	6.65	At most 4

*(**) denotes rejection of the hypothesis at 5%(1%) significance level L.R. test indicates 2 cointegrating equation(s) at 5% significance level

Test of co integration of variables (GDP, L, P, M and PR) show that there is at most co integrating equation as the Likelihood Ratio value is greater than the (**) 1% critical value. This implies that there is an existence of at least 2 co integrating equations among variables. Since co integration among variables existed and the unit root confirmed stationarity at order 1. Therefore, VEC model is most appropriate for the estimation of relationship and test of significant to establish the impact of variable measures.

4.3 Table 3 Vector Error Correction Model

VEC Model

Date: 02/08/13 Time: 20:30

Sample(adjusted): 1966 2005

Included observations: 33

Excluded observations: 7 after
 adjusting endpoints

Standard errors & t-statistics in parentheses

	D(GDP)
D(GDP(-1))	-0.099908 (0.18593) (-0.53735)
D(GDP(-2))	-0.444293 (0.20282) (-2.19053)
C	-1148.404 (12709.7) (-0.09036)
L	-0.019926 (0.02110) (-0.94416)
P	0.118752 (0.55857) (0.21260)
M	0.611541 (0.62152) (0.98395)
PR	0.415307 (0.39021) (1.06433)
R-squared	0.255419
Adj. R-squared	0.083593
Sum sq. resids	6.94E+10
S.E. equation	51656.48
F-statistic	1.486498
Log likelihood	-401.0194
Akaike AIC	24.72845
Schwarz SC	25.04589
Mean dependent	13292.17
S.D. dependent	53961.08

Estimation Proc:

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EC 1 2 GDP @ L P M PR

VAR Model:

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$D(\text{GDP}) = C(1,1)*D(\text{GDP}(-1)) + C(1,2)*D(\text{GDP}(-2)) + C(1,3) + C(1,4)*L + C(1,5)*P + C(1,6)*M + C(1,7)*PR$

VAR Model - Substituted Coefficients:

$$D(GDP) = -0.09990767604 * D(GDP(-1)) - 0.4442929137 * D(GDP(-2)) - 1148.403876 - 0.01992629673 * L + 0.1187522135 * P + 0.6115410444 * M + 0.4153068797 * PR$$

Econometric result of the model adopted is presented in table 4. The vector error correction model is statistically significant at the current year (-2) the probability of the t-ratios (-2.1905) is greater than the rule of thumb. Estimate of London debt is -0.0199. This implies an inverse relationship between London debt and GDP. A unit change in London debt (L) will result in about 1.99% decrease in GDP. The estimate of Paris debt is 0.118. This implies that there is a direct relationship between the independent variable, Paris debt (P), and the dependent variable, GDP. This means that a unit change in Paris debt (P) will bring about 1.18 per cent increase in GDP.

The estimated value of oil export is 0.611. This shows a direct relationship between Multila debt (M) and GDP. That is, a relative change in Multila debt (M) results in about 6.1% increase in GDP. The estimate of promissory note will account for 4.2% increase in GDP.

Investigating the overall significance of the model, the value of F-statistics is 1.4864 and the probability associated with it is (0.000) which is less than 0.05 at 5% level of significance. This means that there exists statistical significance between external debt financing and entrepreneurship development. R-square is 0.255, implying that the coefficient of determination (R^2) is statistically significant at 25.5% which adjudge the model as inaccurate and poorly fitted.

To test for the significance of the individual parameter if the probability value of t-ratio for the coefficient of the regression coefficient is less than the 2.0 rule of thumb irrespective of the sign difference, we accept H1 and conclude that they are statistically significant to the GDP, otherwise is not significant. Based on these arguments, London Debt (L), Paris Debt (P), Multila (M) and Promissory note (PR) are not statistically significant to the GDP since the probability of their t-ratio is less than 2.0 rule of thumb. We generalize that there is short run relationship among London debt, paris debt, multila debt, promissory and entrepreneurship development in Nigeria.

Residual Graph

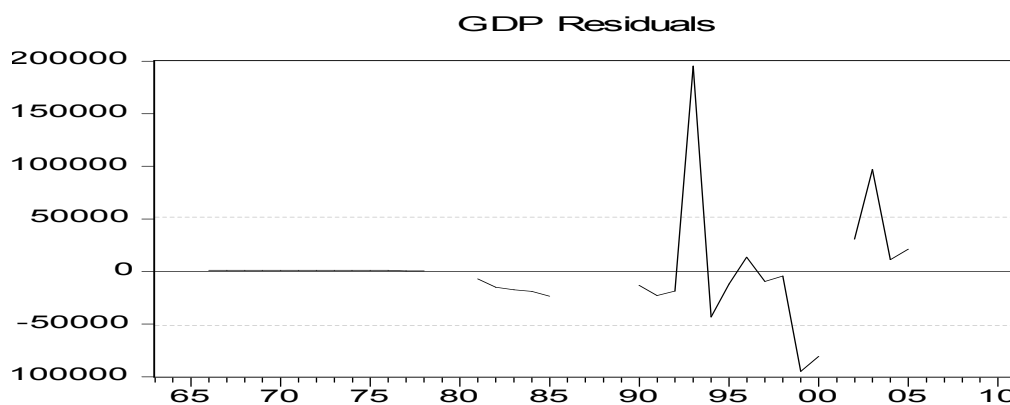


Fig.1

The residual graph analysis of GDP in figure 1 above reveals that economic growth based on entrepreneurship growth and development in Nigeria confirms stability with respect to entrepreneurship from 1964 to 1980. From the pattern of residual of the GDP, the graphs indicate debt increase from 1990 to 1995. Within 1981 to 1989, there is decrease in the debt with respect to entrepreneurship development under study. GDP to external debts financing slightly decrease from 1996 to 2000 and started rising from 2001 to 2007. GDP in the presence of external debt financing assume unstable pattern and gradually become stable from 2007 till date.

5. Conclusion

From the empirical study, the external debt financing of entrepreneurship development, the debt financing of London has positive impact on the entrepreneurship development and economic growth. However, Paris debt, Multilateral and Promissory debt financing negatively impact on the entrepreneurship development in Nigeria. Furthermore, all the external debt financing variables are not statistically significant to entrepreneurship development.

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