X International Conference on Multidisciplinary Research
(IEI, Chandigarh) Institution of Engineers, India , Chandigarh
22nd February 2020 www.conferenceworld.in
ISBN : 978-81-944855-2-0

EFFECT OF PUBLIC DEBT ON THE ECONOMIC GROWTH OF NIGERIA

[1]Akinyeke Francis, [2]Oboba Friday,

[3]Obiekwe Beulah Chikere, [4]Fadayomi Akinwumi Festus,

[1,2]Department of Business Administration and Management,

Federal School of Statistics, Ibadan Nigeria

[3,4]Department of Statistics, Federal School of Statistics Ibadan Nigeria

ABSTRACT

This paper is on the Effect of Public Debt on the economic growth of Nigeria. Usually government borrows when savings is less than anticipated investment. The essence of government borrowing is to enhance the standard of living of the people. In Nigeria public debts have been the concern of many people as critics wonder the positive effects of such debts on the economic growth of the country. The objectives of the study are: to determine the significant effect of external public debt on the economic growth of Nigeria; to determine the effect of internal public debt on the economic growth of Nigeria. From these objectives the hypotheses were derived. Gross Domestic Product (GDP) was used as proxy for economic growth while external debts and internal debt were used as proxies for public debt. The Error Correction Model (ECM), was employed to estimate the casual effects. The study revealed that external public debt had significance on the GDP while internal pubic debt had insignificant effect on GDP. The study recommends that government should only borrow for viable projects that will enhance the living standard of the people. Government should only borrow externally when it is impossible to source for the funds internally.

Keywords - *Error Correction Model, External Debt, Gross Domestic Product, Internal Debt, Public Debt*

I. INTRODUCTION

Every economic policy of a nation aims at sustainable economic growth. In order to achieve the growth in the economy a country must put in place policies that enhance capital formation through savings and investments as [1] opined, countries resort to debt in order to complement savings.

According to [2], countries borrow to enhance consumption, investment, finance balance of payment deficit and budget deficit. Investment and all these are aimed at growing the economy.

Most countries rely on debts in order to finance capital accumulation, [1]. Some of these debts are medium term facilities and used for economic projects geared towards enhanced standard of living of the people.

ISBN : 978-81-944855-2-0

[3], is of the view that external borrowing complements domestic financing so as to enhance economic growth. There is no doubt that debt will improve factor productivity through increased output which result to increase in total output.

Although external debt may be seen as a tool for economic growth and improved standard of living, it may be an impediment to economic growth and stability, as there is exportation of resources when interest and principal are repaid.

According to [4], one may say that Nigeria for instance has large debt that has resulted to huge trade arrears with high cost of funds in the form interest. Developing countries are always burdened with high debt service payments which comes with much problems to such countries.

According to [5], Nigeria had the first debt service burden after the fall in oil prices in 1978. Before then, Nigeria had debt of N28million for railway construction and $13.1million as Jumbo loan in 1958 and 1964 respectively. A loan not well managed may result to high debt servicing which may affect the purpose for which the debt was contracted. At such level, the debt gives poor economic growth and low standard of living, [6].

In Nigeria some economic restricting policies like the Structural Adjustment Programme (SAP) of the mid 1980s led to high rate of public debts mainly from multilateral sources. The high debt services burden led to Nigeria being classified as one of the heavily indebted poor countries (HIPC), [7].

[8], is of the view that, increase in the debt service payment has resulted to fiscal deficit and budgetary problems resulting to low private investment and low growth in the country's Gross Domestic Product, (GDP).

1.2 Problem Statement

From 2008 until 2014, Nigeria's external debt stock was an average of $6920.43 with 16.98% of GDP, with a record low of $3627.5m and 12.52% of GDP [8]. Usually huge debt is as a result of accumulated debt service payment, due to the inability to meet the repayment obligations. This debt crises reflects in the fall in real GDP via investment rate. [9] saw public debt as a constant factor in economic growth and development of the country.

With the debts, funds that could have been used for economic development are channelled to debt payment servicing, thereby reducing the standard of living of people of the country.

1.3 Objectives of the Study

The broad objective of the study is to determine the effect of public debt on the Nigeria economic growth proxied as GDP. The specific objectives are:

1. To ascertain the significant effect of external debt on the economic growth of Nigeria.
2. To determine the effect of internal debt on the economic growth of Nigeria.

1.4 Research Hypotheses

From the above objectives the following hypotheses were derived:

H01: External debt has no significant effect on the economic growth of Nigeria

ISBN : 978-81-944855-2-0

H1: External debt has significant effect on the economic growth of Nigeria.

H02: Internal debt has no effect on the economic growth of Nigeria

H2: Internal debt has effect on the economic growth of Nigeria proxied as GDP.

II. LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Concept of Public Debt

In their opinion, [10] defined external public debt as money borrowed by the country from other countries, which may be public or private institutions.

To [11], public debt is as a result of the gap between savings and investment. To them as the gap widens, debt increases. While internal debt of a country is owed to the citizens of that country, her external debt is owed to the citizens of other countries.

Internal debt consists of money borrowed by the government within her domestic economy. Unlike external debt, internal debt does not increase the aggregate resources of the country. It is simply exchange of resources from one sector to another [12]. With his, internal debt is the transfer of purchasing power among the citizens of the country and there is no giving out of real output to another country. When the government wants to borrow internally, she uses such instruments as, treasury bills, treasury certificates, development loan stock and Federal Government bonds [13].

2.1.2 Why Government Borrow

Government borrows in recognition of the role capital plays in improved productivity for developmental processes. [14] outlined the following reasons why the government borrows: one, to increase investment and human capital development; two, to finance budget and balance of payment deficits.

[15], is of the view that countries borrow to fund capital formation and investments, when savings are not enough. Economic growth requires growth in the level of savings and investments

2.1.3 Causes of Debt Problems in Nigeria

According to [16], the increasing debt burden in emerging economies are as a result of these countries preference to external debts and the huge debt service payments. To [17], Nigeria is having debt burden because the money borrowed was not used for the developmental projects it was meant for. The Debt Management Office (DMO) in (2016) outlined the following as causes of Nigerians debt burden

1. Inefficient trade and exchange rate policies, when there was down turn in the oil market that adversely affected the inflow of revenue to the government, the economic policies were not swift enough to respond to it.
2. Unrealistic contract loans. Some government contracts were selfishly awarded without reference to the relevance of the project to economic growth and development.

ISBN : 978-81-944855-2-0

3. There is always high cost of borrowing funds in the form of high interest rates. Some of the problems are attributable to poor lending are poor management practices and mismatch of the funds were short term debts are used to fund long term projects.

2.1.4 Debt Management Strategies

Debt crisis adversely affects the economic growth of a country with its resultant effect on poor standard of living of the citizens. Countries have devised several strategies to manage public debts.

a. Debt Servicing

Under debt servicing borrowed funds and interest are repaid as they fall due. Most times interest is paid periodically while the principal is repaid at maturity.

b. Debt Restructuring

Debt restructuring entails the conversion of debt to another debt. It can take different forms: debt refinancing, which is the acquisition of a new loan in order to repay old one; debt buy back, which entails offering a substantial discount to a debtor nations as an inducement to repay; debt conversion, which is converting the debt into investment. This may be debt for equity, debt for cash, debt for export or debt peso swap. Debt peso swap is for repatriation of capital flight as it involves resident of a country instead of a foreign investor.

c. Debt Repudiation

Debt repudiation is where the nation comes out to say she is unable to repay. Repudiation has economic implications which may be in the form of sanctions. Such country may find it difficult to borrow in the future.

2.3 Theoretical Framework

Though a lot of theoretical contributions have been made the article is focused on the Dual Gap Theory. Most times shortfall exits between the level of savings and investment and borrowed funds is used to close this gap [18]. This means that the motive behind public debt is to close the lack of savings so as to have increased investment and economic growth. The Gap theory is of the view that the development of a nation is a function of investment and savings and this may not always be equal.

2.4 Empirical Review

There have been several empirical researches on the effect of public debt on economic growth

For instance, [19] researched on the impact of external debt on the economic growth of Tanzania. The study adopted a time service approach, using ordinary least square for analysis and findings established an impact between external debt and economic growth.

[20] studied on the effect of external debt on the economic growth of eight indebted nations of Benin, Ethiopia, Mali, Madagascar, Mozambique, Senegal, Tanzania and Uganda. The study used a panel data covering 1991 - 2010. The Gross – Sectional regression model was used. Finding showed that external debt has effect on the economies of these countries the study recommended that there should be political and economic stability for effective management of the debts.

ISBN : 978-81-944855-2-0

In his study, [21] researched on whether external debts promotes economic growth in Nigeria. The study adopted the regression analysis with Error correction model. The findings showed that there is no causality between external debt and economic growth in Nigeria.

III. RESEARCH METHODOLOGY

This study used the ex-post facto research design, using secondary data.

Data was collected from the Central Bank of Nigeria (CBN) Statistical Bulletin for 2018. Economic growth was proxied as Gross Domestic Product (GDP). This served as the dependent variable. The independent variable which is public debt was proxied as external debts and internal debts of Nigeria for the period under study

3.1 Model specifications

GDP = a0+a1EPD + a21PD +...ui

Where GDP = Gross Domestic Product

EPD = External Public Debt

IPD = Internal Public Debt

a0, a1, a2 = Coefficients

ui = Arising error term.

3.2 Method of Data Analysis

The researcher used the Ordinary Least Square (OLS) technique so as to determine the effect of public debt on economic growth of Nigeria.

IV. DATA ANALYSIS AND INTERPRETATION

Table 4.1 Johanson Cointegration Test

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.999311	107.8845	35.19275	0.0000
At most 1 *	0.928849	35.07897	20.26184	0.0002
At most 2	0.578929	8.649527	9.164546	0.0626

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.999311	72.80552	22.29962	0.0000
At most 1 *	0.928849	26.42945	15.89210	0.0008
At most 2	0.578929	8.649527	9.164546	0.0626

ISBN : 978-81-944855-2-0

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

RGDP	EDT	IDT	C
1.09E-05	-0.000614	-7.41E-05	-0.251227
1.22E-05	0.003057	-0.000220	-3.156900
5.02E-07	-0.005987	0.001622	0.435422

Unrestricted Adjustment Coefficients (alpha):

D(RGDP)	-87174.45	-13594.79	-5628.089
D(EDT)	-129.1185	301.6496	-63.83443
D(IDT)	-95048.06	235714.5	-137469.6

1 Cointegrating Equation(s): Log likelihood -294.6312

Normalized Cointegrating coefficients (standard error in parentheses)

RGDP	EDT	IDT	C
1.000000	-56.50822	-6.826282	-23128.15
	(7.01364)	(1.75890)	(3183.72)

Adjustment coefficients (standard error in parentheses)

D(RGDP)	-0.946924
	(0.07136)
D(EDT)	-0.001403
	(0.00144)
D(IDT)	-1.032450
	(1.34847)

2 Cointegrating Equation(s): Log likelihood -281.4165

Normalized Cointegrating coefficients (standard error in parentheses)

RGDP	EDT	IDT	C
1.000000	0.000000	-8.888126	-66451.49
		(1.01540)	(6075.28)
0.000000	1.000000	-0.036488	-766.6733
		(0.01634)	(97.7603)

Adjustment coefficients (standard error in parentheses)

D(RGDP)	-1.113228	11.94469
	(0.05750)	(10.9595)
D(EDT)	0.002288	1.001509
	(0.00079)	(0.15074)
D(IDT)	1.851034	779.0080
	(1.28304)	(244.566)

ISBN : 978-81-944855-2-0

From table 4.1 above, with the unrestricted Cointegration test, there is one Cointegrating equation at 5 % level of significance. The researchers therefore concluded that there is evidence of long run relationship between public debts and economic growth

Estimation of Models using Error Correction Models

After establishing the long run relationship, between public debt and economic growth, the model was estimated using error correction model (ECM)

Table 4.2 Error Correction Model

Dependent Variable: D(RGDP)
Method: Least Squares
Date: 01/22/20 Time: 12:06
Sample (adjusted): 2010 2019
Included observations: 9 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RGDP(-1))	0.074847	0.056205	1.331688	0.2751
D(EDT(-1))	21.02154	52.63369	0.399393	0.7163
D(EDT(-2))	99.65078	25.72956	3.873007	0.0305
D(IDT(-1))	-35.86284	15.73532	-2.279130	0.1070
D(IDT(-2))	0.752460	14.56533	0.051661	0.9620
ECM(-1)	-0.556920	0.221465	-2.514710	0.0866

R-squared	0.996677	Mean dependent var	-40221.24
Adjusted R-squared	0.991139	S.D. dependent var	128894.2
S.E. of regression	12133.25	Akaike info criterion	21.88001
Sum squared resid	4.42E+08	Schwarz criterion	22.01149
Log likelihood	-92.46004	Hannan-Quinn criter.	21.59627
Durbin-Watson stat	2.150862		

From table 4.2, external public debt (EPD), at lag one has insignificant impact on economic growth while at lag two, it showed significant impact. Internal public debt showed insignificant impacts on economic growth at both lags one and two. Adjusted R-squared had a coefficient of 0.991143, which means that EPD and PID explained 99.11% of variations in economic growth.

Durbin Watson Statistics (DW) has 2.150802, which means there is no autocorrelation.

4.1 Test of Hypotheses

For hypothesis one, PED at lag one has a coefficient if 21.02154 and probability of 0.7163, at lag two, PED had a Coefficient of 99.65078 and probability of 0.0305, that showed significant relationship between EPD and GDP. Therefore the researchers rejected the null hypothesis and concluded that EPD has significant impact on economic growth.

For hypothesis two, IPD at lag one, had a Coefficient of 35.86284 and probability value of 0.1070. At lag two it had Coefficient of 0.752460 and probability of 0.9620. This showed that IPD had insignificant impact on economic growth and this led to the acceptance of the null hypothesis.

4.2 Discussion on Findings

From the study there is positive and significant relationship between external debt and economic growth

This study agreed with earlier study by [19] whose study showed a significant relationship, between external debt and economic growth. Again the study showed that external debt increases economic growth. This can only be possible if there is proper use of the borrowed funds for viable projects.

Again the study showed a positive and insignificant relationship between internal debt and economic growth. This study does not agree with [22], whose study established that domestic debt has significant relationship with economic growth.

V. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

The study which is on the effect of public debt on economic growth of Nigeria, used economic growth proxied as GDP as dependent variable. The independent variable was public debt proxied as external public debt and internal public debt. The study revealed that both external and internal debts have significant relationship with economic growth proxied as GDP. These debts can only grow the Nigerian economy if they are viably channelled into productive projects.

5.3 Recommendation

From the findings, the government should only embark on borrowing for such projects that will enhance the standard of living of the citizens. Government should only go for external borrowing when it is impossible to borrow internally. There should be proper evaluation of interest rate and exchange rate policy as it affect borrowed funds. Those who misuse public debts must be punished.

REFERENCES

[1] Adepoju, A. A., Salau, A. S., & Obayelu, A. E. (2007) Effect of external debt management on sustainable economic growth and development lesson from Nigeria, Journal of social sciences, 8 (2), 176-182.

[2] Soludo C. (2003), Debt, poverty and inequality in Okoye, Iweala, Soludo and Muntar (eds), the debt trapped in Nigeria, Africa world press N.J 23-74.

[3] Hameed, A., Ashraf, H., & Chaudhary, M. A. (2008). External debt and its impact on economic and business growth in Pakistan. International Research Journal of Finance and Economics, 20(1), 132-140

[4] Mutasa, C. (2003). Regional integration and debt in Africa: A comparative report of Africa's Regional Groupings. AFRODAD Research Series.

[5] Adesola, W. A. (2009). Debt servicing and economic growth and public investment: The case of Nigeria. Journal of Social Sciences, 8(2), 50.

[6] Fosu, A. K. (2007). The external debt-servicing constraint and public expenditure composition: Evidence from African economies (No. 2007/36). WIDER Research Paper.

[7] Omotoye, R., Sharma, H., Ngassam, C. and Eseonu, M. (2006), "Sub- Saharan Africa's debt crisis: analysis and forecast based on Nigeria", Managerial Finance, Vol. 32 No. 7, pp. 606-620. https://doi.org/10.1108/03074350610671593

[8] Iweala M .O (2013) Clarifying Nigeria debt status, premium times June 7 www.premiumtimesng.com. Extracted: 10th Dec. 2019

[9] Cohen, Daniel, (2001). The HIPC initiative: True and false promises. International Finance, Vol. 4, no. 3, pp. 363-380.

[10] Arnone, M., Bandiera, L., & Presbitero, A. F. (2005). External debt sustainability: Theory and empirical evidence. Catholic University of Piacenza Economics Working Paper, 33, 1-47.

[11] Ogbeifun, M.I. (2007). "The Politics of External Debt Relief: Nigeria's Unique Experience". African Journal of Stability and Development. 1(1) 18 - 30

[12] Nurudeen, A., & Usman, A. (2010). Government expenditure and economic growth in Nigeria, 1970-2008: A disaggregated analysis. Business and Economics Journal, 2010 (4), 1-11.

[13] Isibor, A. A., Babajide, A. A., Akinjare, V. A., Oladeji, T., & Osuma, G. (2018). The effect of public debt on economic growth in Nigeria: An empirical investigation. International Business Management, 12(6), 436-441.

[14] Soludo, C. C. (2018). The Political Economy of Restructuring the Nigerian Federation. The Sun Newspaper, 2nd August.

[15] Obadan, M. I. (2004). Foreign Capital Flows and External Debt: Perspectives on Nigeria and the LCDs Group. Broadway Press.

[16] Sogo-Temi, J. S. (1999). Indebtedness and Nigeria's development. Issues in Contemporary Political Economy of Nigeria, Ilorin: Sally and Associates.

[17] Aluko F and Arowolo D (2010) Foreign aid, the third world debt crisis and the implication for economic development: the Nigeria Experience, African Journal of Political Science and International relations, 4 (4), 120 – 127.

[18] Omoniyi, B. B. (2016). Impact of poverty on economic growth: A comparative analysis of Nigeria and Ghana. Unpublished PhD thesis, Ekiti State University, Ado-Ekiti.

[19] Faragi K and Makame S, A (2013) Impact of external debt on economic growth: A case study of Tanzania, advances in management and applied economics, 3 (4): 59-82.

[20] Ejigayehu, D. A. (2013). The effect of external debt on Economic Growth: A panel data analysis on the relationship between external debt and economic growth.

[21] Ogunmuyiwa, M. S. (2011). Does external debt promote economic growth in Nigeria? Current Research Journal of Economic Theory, 3(1), 29-35.

[22] Okwu, A. T., Obiwuru T. C., Obiakor R. T., and Oluwalaiye O. B. (2016). Domestic debt and Economic growth in Nigeria: Data-based Evidence. Greener Journal of Economics and Accountancy, 5(1), 1-12.