CHAPTER SEVENTEEN

MANAGING EXTERNAL PUBLIC DEBT FOR ECONOMIC GROWTH IN NIGERIA: ANALYSIS OF THE COMPONENTS

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Abstract

Debt overhang looms on the Nigerian economy as a result of the burden of external public debt and the consequences of these will be grave given that the impact of these funds on economic growth seems negligible. It is based on this that this study examined the effect of the components of external public debt on economic growth in Nigeria. Secondary data was sourced from the Central Bank of Nigeria, the Debt Management office of Nigeria and the World Bank for the period from 1999 to 2023. The study used both descriptive and analytical tools (Autoregressive Distribution Lag model) for analysis. The findings of the study revealed that multilateral loans and bilateral loans retard economic growth in Nigeria as a result of ineffective governance, while Eurobonds exerted a positive effect on economic growth. Hence, the study recommends a critical evaluation of multilateral and bilateral loans to Nigeria; a stable macroeconomic environment for investments to thrive and grow exports to earn foreign exchange; and the enforcement of accountability in governance**.**

Keywords: External public debt, economic growth, debt overhang, multilateral and bilateral loans, Eurobonds**.**

1. Introduction

Debt generally is a cause for concern especially when it becomes a burden (Festus and Saibu, 2019). Total world debt recorded $305 trillion in the first quarter of 2023, of which individuals owe $57.6 trillion, corporations owe $161.7 trillion and governments owe $85.7 trillion of the global debt (IMF, 2023). The USA has the highest percentage of 31.0% in which Nigeria only contributes 0.2% of the global debt (Desjardins, 2019). In 2022, Africa's public debt reached $1.8trillion, apart from the rest of Africa which contributed $745 billion to Africa's debt, Egypt contributed $421 billion and Nigeria contributed $181 billion. This makes Nigeria the third largest borrowing country in Africa, as South Africa comes second by contributing $288billion to Africa's aggregate debt (UNCTAD, 2022).

External public debt on its own is not a problem, but its productive use is important to avert debt overhang and the adverse implications for the economy. This is the view of Keynesian economics that advocate government debt stimulates aggregate demand and leads to economic growth especially during economic recession. When productively allocated it will drive employment, production and income leading to economic growth and development, and even service its repayment. In contrast, the debt overhang theory (Ochuko & Idowu, 2019) opposes this notion stating that when a country's debt is high, it will retard private investment and economic growth. External public debt can cause a nation to be trapped in the debt cycle that results from excess borrowing where debt servicing becomes greater than revenue generation. This creates a debt trap and increases debt burden, thereby retarding economic growth. A few authors such as Yusuf and Mohammed (2021), Festus and Saibu (2019), Ndubuisi (2017) and others examined the relationship between economic growth and external public debt in Nigeria. Most of the authors acknowledged that although Nigeria is in a debt trap, nonetheless external public debt can increase economic growth in the long run, if productively allocated.

Debt Management Office (DMO, 2020) data showed that Nigeria's total public debt was USD79.303 billion (₦28,628.49 billion) as of Q1 2020 but it had risen to USD 85,896.52 (₦31,008,642.14) by Q2, 2020. This was despite the payment of ₦609.13 billion to service domestic debt obligations and $472.57 million external debt service payments during the period. This magnitude and the amount which is required to service these debts, as well as, its attendant possible effects on different operating sectors of the economy makes it an issue. As it is clear that this may be unsustainable for the country. Thus, aside from the debt-to-GDP ratio, and other considerations like interest payment-to-government revenue, foreign exchange constraints, fiscal constraints, and other considerations need to be urgently reassessed to have a durable debt strategy that can positively affect economic growth in the country.

Nigeria's current external public debt is $42,671 million as of Q2 2023 (DMO, 2023). The country's debt profile has become a burden and a source of concern, as the country's external debt is the highest in sub-Saharan Africa. In spite of several negotiations and rescheduling, this debt keeps increasing with negligible effect on economic growth and development, so economic growth remains low and not correlated to the external debt profile (Muhammad & Abdullahi, 2020. The tax-revenue ratio is inadequate to service external public debt. The country has numerous economic problems and this has been exacerbated by inadequate government expenditure hampered by debt servicing obligations, exchange rate fluctuations etc. although literature is available on the effect of external public debt on economic growth in Nigeria. But, only a few, if at all, to the knowledge of the author examined the effect of the components of external public debts in Nigeria. There are four dimensions of external public debt composition: instrument, sector, currency and maturity Avdjiev et al (2017). These instruments are classified by the nature of the underlying agreements; multilateral debt depict loan instrument from multilateral organizations, bilateral debt is the instrument for loans with bilateral agreements and Eurobonds is based on Eurobonds and commercial papers. . The purpose of this study is to examine the effect of these components on economic growth.

Nigeria suffered substantially from external debt issues in the late 20th century until it was eased in 2006, after it negotiated debt forgiveness from its multilateral creditors (Paris club). This reprieve may have been reversed with recent debt accumulation and servicing that is now bringing upon the nation, fears of "debt overhang' again. This study in determining the composition of Nigeria's external public debt, identify where the weight lies and provide specific policy measures for an effective management of the debt to prevent debt overhang and engender economic growth. The study is structured as follows; section one is on introduction. Section two reviews appropriate literature and section three deal with the methodology, while section four is on the results and analysis. Section five draws a valid conclusion and make recommendations.

2. Literature Review

Conceptual clarifications; External public debt and Economic growth

These are debts incurred when the Government of a country borrows from foreign banks, Government and international institutions like IMF, World Bank, Paris club etc. Also it can be seen as unpaid portion of external resources required for development purposes and balance of payment support which could not be repaid when they fell due (Abula et al, 2016). Sola (2016) stated that Debt refer to the resources of money in use in a country, which is not generated by the country. It is a liability represented by financial instrument or other formal equivalent. While external debt is the amount of disbursed funds and outstanding contractual liabilities of residents of a country to repay principal to non-residents (IMF, 2003). Chukwu (2023) defined external debt as that portion of a country's debt that is acquired from foreign sources such as foreign corporations, government or financial institutions. For this study, it is the amount of financial liabilities that Nigeria owes other countries and organizations. This comprises of multilateral, bilateral and bonds outstanding against the country.

Economic growth emphasized the changes in economy's productivity over time. It is the increasing quality of goods and services available to meet an economy's need over time (NZue, 2020).

The higher the debt burden as a result of the pressure of repayment, ratios of debt servicing payments etc., and non-investment in socio-economic infrastructure, the lower the level of economic growth, the primary burden of Nigeria's external public debt is indeed shifted to the future, thereby retarding economic growth (Yusuf and Mohammed, 2021).

Causes of External Public Debt in Nigeria: Nigeria's external public debt at the end of 2006, following the widely acclaimed debt forgiveness by the Paris Club of creditors, stood at approximately $3.5 billion. However, the country's external debt has since surged to $46 billion by the end of Q2 2023, and this figure continues to rise (DMO, 2023). Numerous factors contributed to the increased size of Nigeria's external debt. The major factors include the rapid growth of public expenditure, particularly that on capital projects, borrowing from the international community at non-concessional interest rates, decline in oil output and earnings, and the dependence on imports, which contributed to the emergence of trade arrears (Ndoricimpa, 2020). These developments resulted in the bunching of debt service, thus compounding the debt situation. Furthermore, upward movements in the interest rate affected the size of the external debt stock. Other factors include increasing government fiscal deficit, poor foreign exchange rate management, low GDP growth rate and inadequate domestic savings (Ehikioya & Omankhanlen, 2021) are the cause of external borrowing.

Components of External Public Debt in Nigeria: Loans remained the largest component of external public debt in Nigeria, with a share of 32.5%, followed by currency and deposits (22.6%), trade credit and advances (19.9%) and debt securities such as Eurobond that commenced in 2011 with the floating of $500m FGN bond (Sola, 2016). The funds raised from the Eurobonds are deployed to very critical sectors of the economy such as the electricity power sector, agriculture, solid minerals, roads and other infrastructure provision (Revised National Integrated Infrastructure Master Plan -NIIMP, 2020). The loans and bonds are denominated in instruments classified

as multilateral loans (MUL), bilateral loans (BIL) and Eurobonds and other commercial papers, (BON)

External Public Debt Management: External public debt management refers to the establishment of the conditions of issue and redemption of foreign loans. It involves how debts is administered or handled to avoid adverse economic effect. It also involves loan negotiation, monitoring of both Government direct debt and non-governmental debt; controlling the debt including the measurement of the debt servicing capacity, risk management, exchange, interest rate and commodity price risk, debt institutions and the use of computer based debt management systems. The major objective of external public debt management policy is to achieve the benefits of external finance without creating difficult problems of macroeconomic and balance of payment stability (Klein, 2010). Public Debt management is also argued as an important factor that underpins the credibility and reputation of nations and ensures the stability of debt capital markets as well as the financial institutions that hold public debt (Ajayi and Edewusi, 2020)

Theoretical Review

The dual gap analysis explained that development is a function of investment and that such require domestic savings, which if inadequate should be augmented from abroad. Domestic investment shortfalls compelled Nigeria to go heavily a-borrowing again after suffering a debt overhang burden that was lightened in 2006 (Ehikioya and Omankhanlen, 2021). The Debt Overhang theory guides this study, it shows the negative effect of a debt overhang on the economy. A debt overhang occurs when the debt is too large that majority of the revenue is used to service the debt, this discourages government investment because the return derived from the investment is used to service debt, and this lowers economic growth (Essien et al, 2016). This theory suits this study as it explains the effect of external public debt on the economy, though it did not go deep into explaining how the components of external public debt affect economic growth, which

is the contribution of this study to theory. In Nigeria, the economic breakthrough envisaged from external public debt has not been achieved, even though the country has accumulated a reasonable stock of external public debts.

Empirical review

While analyzing the effect of external public debt on economic growth, Yusuf and Mohammed (2021) worked on the impact of government debt on economic growth in Nigeria, using Autoregressive distributed lag technique and found that Nigeria did not utilized the debt productively. However, Festus and Saibu (2019), focused on the Effect of external debt on Nigerian Economy. A time series data on external debt stock, real gross domestic product (real GDP), trade openness, and gross fixed capital formation as a percentage of GDP. They made use of the autoregressive distribution lag and found that external debt had a negative effect on economic growth in Nigeria. This was also in line with the study by Yusuf and Mohammed (2021) and Ndubuisi (2017).

Didia and Ayokunle (2020) experimented with the effect of external and domestic debt on economic growth in Nigeria using data from the World Bank and the vector error correction model (VECM) as a method of data analysis. They found that domestic debt has a positive relationship with economic growth in the long run while external debt exhibiting a negative relationship with economic growth. In a similar study, Ibidolapo (2020) studied the effect of external debt on the Nigerian economy, he made use of ARDL and also came about the same findings as Didia and Ayokunle (2020). In an examination of the cause-effect relationship between external public debt and economic growth in Nigeria, Kur et al (2021) sought to investigate public debt and its impact on economic growth through its impact on investment. Using secondary data and ARDL, it was found that in the long run, external debt and investment have a strong positive link with economic growth while domestic debt and investment have a negative link with economic growth.

At the international level, León et al (2019) investigated the effect of public indebtedness on economic growth in Latin American economies using panel data and VAR as a method of data analysis, the authors discovered that a public debt GDP ratio of 75% leads to a deceleration in growth. Also, Mabula and Mutasa (2019) explored the effect of public debt on private investment in Tanzania. Auto regressive distriuted lag (ARDL) was used to analyze the secondary data from 1970 to 2016. The result showed that the combined effect of domestic and external public debt leads to economic growth. Ndoricimpa (2020) examined the effect of public debt on economic growth in Africa, using panel smooth transition regression approach. The findings showed that low public debt is neutral to economic growth but high public debt is detrimental to economic growth. Ighodalo (2020) experimented the relationship between external debt and economic growth in African countries. He made use of secondary data from the world development indicators (WDI), the result obtained showed that in the in the long-run external debt had a deteriorating impact on economic growth in Africa.

3. Methodology

Research design

The paper made use of historical time series data. This required annual secondary data on Nigeria's real gross domestic product (RGD) and the components of external public debt (proxy by the debt instruments), obtained from the Debt Management Office (DMO), the Central Bank of Nigeria (CBN) statistical bulletin, the National Bureau of Statistics (NBS) Annual Abstract of Statistics and the World Bank Development indicators for the period from 2006 to 2023. . The paper employed the use of descriptive and analytical statistics tools for data analysis. Also, all requisite diagnostic and tests were conducted to ensure that results obtained were not spurious. This includes the unit root test, Ramsey RESET test, the Bound cointegration test, and the post estimation tests for normality, autocorrelation and multicollinearity were conducted.

Theoretical formulation and model specification

Adapting the theoretical foundation of the debt overhang theory. This study modifies the model of Ndubuisi (2017) to specify the effect of the components of external public debt on economic growth in Nigeria. This was done with the inclusion of exchange rate as a control variables and this is specified:

Implicitly as; RGD = f (MUL, BIL, BON, EFF, ECH)……. (1)

Econometrically as; $RGD = \beta_0 + \beta_1 MUL + \beta_2 BIL + \beta_3 BON + \beta_4 EFF + \beta_5 ECH + Ut$ ---------- (2)

In log form: $RGD = \beta_0 + \beta_1 logMUL + \beta_2 logBIL + \beta_3 logBON + \beta_4 logEFF + \beta_5 logECH + Ut$ – (3)

Where;
RGD = Real Gross Domestic Product
MUL = Multilateral Loans
BIL = Bilateral loans
BON = Bonds and other commercial papers
EFF = Effective Governance Index
ECH = Exchange rate
U= Error term.

Based on the debt over hang theory, the a priori expectation is that the components of Nigeria's debts exerts an inverse effect on economic growth in Nigeria. This implies that as the components of external public debt increases, economic growth declines due to increasing debt burden.

Equation (2) indicate the effect of the components of external public debt on economic growth in Nigeria. The dependent variable is economic growth, which is measured using the real Gross Domestic Product (RGD), it considers the growth in production and output of a country after considering inflation. *MUL* is a component of the External foreign debt depicting loan instrument from multilateral

organizations; BIL is the instrument for loans with bilateral agreements, BON is that based on Eurobonds and commercial papers and EFF is Effective Governance index at the end of period *t*. While, *ECH* is the foreign exchange rate; the units of domestic currency to buy one unit of foreign currency in which the loan is denominated.

The a priori expectation is that parameters β_1, β_2, β_3, β_4, should be less than zero (have a significant negative effect on economic growth), while β_5 is expected to be greater than zero (have a significant positive effect on economic growth). This is given the Debt overhang theory postulation.

Estimation Technique

The Autoregressive Distributed Lag (ARDL) model was employed to examine the short run and long run dynamics among the variables of this study. The technique was employed due to its inherent advantages (Pesaran, Shin and Smith, 2001). It is robust and performs well for small sample size of data, whether in 1(0) or 1(1) state as used in this study. There is also an error-correction representation that can ascertain the speed of adjustment towards long-run equilibrium in case of an initial distortion.

4. Results and Discussion

Descriptive Statistics of Variables

Table 1 presents the result of the descriptive statistics and the Jarque-Bera test of Normality. The statistical tests indicate that the error terms of real gross domestic product, (RGD), Multilateral loans (MUL), Bilateral loans (BIL) Effective governance index (EFF) and, Bonds and Commercial papers (BON) follow the normal distribution given that their probabilities are greater than the 5% level of significance. Although this allowed the use of multivariate regression analysis used in this study, it is worthy to note that it is a large-sample test, and our sample of 17 observations is not large**.**

Table 1: Descriptive Statistics of Variables

	RGD	MUL	BIL	BON	EFF	ECH
Mean	11.02235	8.848235	6.886471	7.338235	0.966207	4.834118
Median	11.13000	8.820000	7.250000	7.310000	0.980000	4.610000
Std. Dev.	0.194053	0.662526	1.299990	1.659636	0.148165	0.331984
Jarque-Bera	2.345239	1.052870	1.756970	1.634033	1.571739	2.312477
Probability	0.309555	0.590707	0.415412	0.441748	0.455723	0.314668
Observations	17	17	17	17	17	17

Source: Extract from E-views 10 (2024)

Unit Root Test Results

Table 2: Stationarity Test Result

Variable	ADF Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value	Prob.	Order of Integration
RGD	-4.260508	-4.004425	-3.098896	-2.690439	0.0052	I(0)
MIL	-4.115954	-4.004425	-3.098896	-2.690439	0.0082	I(1)
BIL	-3.090351	-4.004425	-3.098896	-2.690439	0.0492	I(1)
BON	-3.390826	-4.004425	-3.098896	-2.690439	0.0300	I(1)
EFF	-4.282682	-4.004425	-3.098896	-2.690439	0.0055	1(0)
ECH	-3.097314	-4.004425	-3.098896	-2.690439	0.0486	1(1)

Source: E-views 10 Output (2024)

Table 2 shows the Augmented Dickey Fuller (ADF) unit root test. The result show that all the included variables were integrated at order one, that is I (1) or they were stationary at first difference, except real gross domestic product and effective governance index that were stable at levels 1(0). This meets the pre-requisite for the employment of the ARDL model.

ARDL Cointegration Test Result

The ARDL Bounds test cointegration technique was conducted, and the result obtained is presented in Table 3. There is evidence of long-run cointegration, as the F-statistic depicted in the Bounds test 4.7337 falls beyond the upper bound at the 5% critical bounds. This is an indication that there is long run co-integration among the variables.

Table 3: Bounds Test for Cointegration Result

Test Statistic	Value	K
F-statistic	4.733768	5
	Critical Value Bounds	
Significance	**I0 Bound**	**II Bound**
10%	2.37	3.2
5%	2.79	3.67
2.5%	3.15	4.08
1%	3.65	4.66

Source: E-views 10 Output (2024)

Estimated ARDL Coefficients Results

The ARDL short run and long run coefficients are displayed in Table 5 and 6 respectively.

Table 5: Short Run Coefficients of the ARDL Model

Variables	Coefficient	Standard Error	t-statistic	Prob.
Dependent Variable: Real Gross Domestic Product (RGD)				
ΔRGD	-0.0761	0.0164	-4.6209	0.0000
ΔMUL	-0.0016	0.0006	-2.6816	0.0101
ΔBIL	-0.0018	0.0004	-3.7821	0.0004
ΔBON	0.0093	0.0030	3.0300	0.0040
ΔEFF	-0.0009	0.0001	-5.3879	0.0000
ΔECH	0.0004	0.0001	3.5957	0.0008
C	0.2790	0.0552	5.0524	0.0000
CointEq(-1)	-0.4675	0.1380	-2.7167	0.0137

Source: Eviews 10 Output *(2024)*

Table 6: Long Run Coefficients of the ARDL Model

Variables	Coefficient	Standard Error	t-statistic	Prob.
Dependent Variable: Real Gross Domestic Product (RGD)				
RGD	-0.4547	0.0825	-5.5108	0.0000
MUL	-0.0098	0.0044	-2.2055	0.0323
BIL	-0.0109	0.0030	-3.5985	0.0008
BON	0.0559	0.0204	2.7364	0.0087
EFF	-0.0090	0.0001	-5.3870	0.0002
ECH	0.0027	0.0004	6.0938	0.0080
C	1.6655	0.2258	7.3749	0.0000

Source: Eviews 10 Output, *(2024)*

Table 5 and 6 show the short and the steady-state long run effect of a period lag of RGD, MUL, BIL, BON, EFF and ECH on current RGD. The model results show that the variables RGD, MUL, and BIL have a significant negative effect on real gross domestic product in line with the a priori expectation, and the study (Didia and Ayokunle, 2020; Ibidapo, 2020; Festus and Saibu, 2019), but this is against (Mabula and Mutasa, 2019) that obtained a positive effect. On the other hand, BON have a significant positive effect on RGD, this is against a priori and the study (Yusuf and Mohammed, 2021), but in line with (Kur et al, 2021).

The estimated coefficient of one period lag value of RGD has a negative effect on the current RGD by 7% and 45% of that unit change in the short run and long run respectively. A one unit increase in multilateral loans implementation in the country, also decrease economic growth by 1 percent in both the short run and long run. Also, bilateral loans and effective governance indicator show that a unit increase in them will result in a 1% decline in real gross domestic product both in the short run. The results also show that estimated coefficient of Eurobonds and nominal exchange rate exert a significant 1% positive effect on economic growth given a unit change in them respectively. Eurobond result did not agree with a priori, but is in line with Kur et al (2021), while exchange rate did. The result show that a positive effect of nominal exchange rate causes the appreciation of the exchange rate (depreciation of the naira) and vice

versa. The coefficient of the error correction model (-0.46) implies that adjustment to disequilibria towards long run equilibrium via the equilibrium correction term is about 46% annually

Applicable Tests Results

Various tests were performed to avoid spurious estimates. These are shown in table 7 below.

Table 7: Diagnostics/tests

Type of test	**Test statistic**	**Prob****
Breusch-Godfrey Serial Correlation LM Test:	0.322759	Prob. F (2, 4) 0.7414
Residual Normality Test	JB Statistics (0.2077)	0.9013
Breusch-Pagan-Godfrey Heteroskedasticity Test	1.200289	Prob. F (8, 6) 0.4237

Source: Authors' Compilation from E-views 10 (2024)

Table 7 reflect the BG residual test for serial correlation, heteroskedasticity and the JB normality tests respectively. Given their respective probabilities 0.7414, 0.9013 and 0.4237 respectively, it means that the estimates obtained are free from the problems of serial correlation, normality, and heteroskedasticity.

5. Conclusion and Policy Recommendations

The study is on the response of economic growth to the components of external public debt in Nigeria. The findings show that multilateral loans (MUL) and Bilateral loans (BIL) retard economic growth in Nigeria and it was evident from the result that governance issues were a major challenge to the effective utilization of these funds. This results to low economic growth that make external public debt unsustainable in the country. It also leads to the appreciation of the Naira, making the country's export dearer and less competitive in the international market, thereby hindering the inflow of foreign exchange

that should be used to service these debts, resulting in debt distress. Eurobonds exerts a positive effect on economic growth, perhaps because these are primarily market guaranteed traded instruments with mostly private interest that are more effectively managed. The result find support for the debt over hang theory, and the empirical results conform to the conclusion of some existing literature.

The debt over hang issue is of concern to Nigeria and understanding the effect of the components of its external public debt would provide a pathway for formulating effective policies for external public debt sustainability to achieve economic growth. Hence, this study recommends a critical evaluation of multilateral and bilateral loans to Nigeria in terms of their efficient utilization in productive investments; provide enabling macroeconomic stability in the economy for investments to thrive and grow exports to earn foreign exchange. There is a dire need for the enforcement of accountability in governance, and punitive measures taken against those who abuse it.

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