

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The accumulation of external debt is a common phenomenon of the third World countries at the stage of economic growth and development where the supply of domestic savings is low, current account payment deficit is high and import of capital is needed to increase domestic resources.

The management of Nigeria's external debt has been a major macroeconomic problem especially since the early 1980s. For many years now, the country's debt has been growing in spite of the efforts being made by the Government to manage and minimize its crushing effects on the nation's economy. Such efforts range from the various refinancing and restructuring agreements to debt conversion programme and the deliberate allocation of substantial resources towards servicing the debt. Of particular concern to the authorities, is the heavy debt burden it imposes when compared with the country's debt service capacity.

In recent years, however, some observers have held different perceptions about Nigeria's capacity or otherwise to service her debt. This is largely because of the improved income to the country arising from export of crude

oil, Nigeria's major export. Moreover others have argued that bad governance, especially during the military rule, largely accounted for the mismanagement of the Nigerian economy and therefore, the people should bear the brunt. Whatever position one holds, what appears undisputable is the increasingly large debt service requirement which imposes considerable stress on the Nigerian economy even when the improved resource inflow is factored into the country's cash flows. Indeed, the issue of sustainability of Nigeria's debt profile continued to be the focus of research and public debate until the recent initiative of the Paris Club of Creditors which appears to address the issue in a more meaningful way.

Even then the conditions and adequacy of the debt relief have continued to generate further debate.

The objective of this paper is to review Nigeria's external debt and the burden it imposes, and use the various indicators and prevailing global economic circumstances to justify the need for substantial debt relief for the country.

However, during the late 70s and early 80s, commercial banks began playing a big role in international lending by recycling surplus OPEC "petrodollars" and issuing general purpose loans to less developed countries to provide balance of payment support and expansion of export sectors. While foreign borrowing can be highly beneficial providing the resources necessary to

promote economic growth and development, it has its cost. In recent years, these costs have greatly outweighed the benefits for many developing nations. The main cost associated with the accumulation of a large external debt is “debt serving”.

Debt servicing is the payment of liquidation of the principal and accumulated interest. It is a contractually fixed exchange on domestic real income and savings as the debt grows or as interest rate raise. Debt service payment must be made with foreign exchange. In other words, debt service obligation can be met only through export earnings.

However, should the composition of import change or should the composition of export change or should interest rate rise causing ballooning of debt service payment or should export earnings diminish, debt servicing difficulties are likely to arise. This has been the experience of most of the heavily indebted third World nations.

In order to solve the problem, several external debt-financing options were adopted under the Structural Adjustment Programme (SAP) in 1986. Since the introduction of this programme, Nigerians have been plunged into one hardship after another ranging from the devaluation of the naira through Second Tie Foreign Exchange Market (SFEM) now Foreign Exchange Market (FEM) to the rising prices of commodities, inflation etc. SAP as an economic

restructuring program is capable of alleviating the country's debt trap, a miracle Nigerian's are waiting to see.

Specifically, as part of the programmatic approach to reduce the burden of external debt, embargo on new loans, limit on debt service payment, debt restricting and debt conversion have been adopted in recent years.

1.2 STATEMENT OF THE PROBLEM

The aim of any well-co-ordinated and articulated economic policy is to achieve a sustained economic growth and development. However, a proper understanding of what development is will enable a policy maker to formulate appropriate policies for the acceleration of economic growth. In other words, the nature of the development policy of a country will depend on how policy makers of the country perceive growth.

The insistence of the need of external assistance obscures the necessity for the people of poor countries themselves to develop the facilities, attitudes and institutions which are required if these societies are to achieve sustained substantial material process. Indeed, these insurances are external aids to help perpetuate the ideas and attitude widespread in these countries which are changing the economic progress.

The rapid growing foreign debt, its consequent payment problem and lack of appropriate debt management has plummeted the country into a turbulent economic crisis, balance of payment problem, foreign exchange sequence scarcity of essential items (including raw materials and spare parts) which led to the closure of many factories, retrenchment of workers, high rate of unemployment and underemployment. Embarking on productive ventures for instance led to waste of resources and of course, poor economic performance.

1.3 OBJECTIVE OF THE STUDY.

The objectives of the study include:

- I) To determine the relationship between external debt and economic growth in Nigeria.
- II) To determine the impact of external debt on the economic growth in Nigeria.
- III) To examine the size and trend of external debt on the economic growth in Nigeria.

1.4 RESEARCH HYPOTHESIS

i) H_0 : There is no relationship between external debt and economic growth in Nigeria.

ii) H_0 : There is no impact of external debt on economic growth in Nigeria.

iii) H_0 : External debt has no trend and size on the economic growth in Nigeria.

1.5 SIGNIFICANCE OF THE STUDY.

The significance of the study has to do with the impacts or effects of the study on the people. Therefore, the significance of this study seeks to highlight on the following factors:

- i) The study serves as a guide for future governmental policy on debt minimization and control.
- ii) Also the study will bring to notice on the entire citizens the impact of the external debt on the welfare and living standard.

1.6 SCOPE OF THE STUDY

The project covers the structures of Nigeria's external debt, its management techniques and some factors that contributed to the huge debt. The time frame of this project is 1989-2009 was chosen because it allows an analysis of the Structural Adjustment Programme (SAP) which was at this period, partly solve the debt crisis and partly foster sustainable economic growth.

1.7 LIMITATIONS OF THE STUDY

This study is basically restricted to the effect of external debt on the Nigeria economy growth. The research was not able to gather all the necessary materials from all the secondary sources needed for the study due to unforeseen circumstances resulting from time and financial constraints.

CHAPTER TWO

LITERATURE REVIEW

2.1 THEORETICAL LITERATURE

Most economist especially those in third world countries, have at one time or the other experience shortfall between domestic savings and the desired level of investment. External borrowings have often been reported in order to fill such gaps. However, if such loans are not properly monitored, the problem of sourcing them ensures and invariably leads to the problem of debt overhang. For example, short-term borrowing for the financing of long-term project is a mismatch. Many third World countries which engage in borrowing to fill the saving investment gap ended up having the dual problem of debt serving burden and debt overhang.

A project of this magnitude cannot be the independent ideas of the researcher alone. It must rely on a careful harmonization of idea and insights provided by previous authors and schools of thought. The intention however, is not to collect a complete array of literate on debt but to select and present mostly those references that are relevant in the cause of this study.

External debt (or foreign debt) is that part of the total debt in a country that is owed to creditors outside the country. The debtors can be the government,

corporations or private households. The debt includes money owed to private commercial banks, other governments, or international financial institutions such as the International Monetary Fund (IMF) and World Bank. Note that the use of gross liability figures greatly distorts the ratio for countries which contain major money centres, e.g. United Kingdom, because of London's role as a major money centre.

According to Okey Onuchukwu and T.J Agiobbendbo (2000) external debt identified as money owned to foreigners, servicing and payment of actual principal are made in foreign currencies. This payment on foreign debt automatically becomes a source of capital outflow. Huge external debt has an adverse effect on the macroeconomics environment.

According to Oyejide (2004) external debt is defined as the money or resources use in an organization that is not contributed by its owner and does not in any other way belong to them. It is a liability represented by a financial instrument or other formal equivalent. External debt therefore refers to the resources of money in use in a country that is not generated internally and does not in any way come from local citizens whether corporate or individual.

The World Bank (1998) described external debt as the amount of money at any given time disbursed and outstanding contractual liabilities of residents to pay interest, with or without principal. The liabilities which fall within this core

definition include currency and transferable deposits, other deposits, short term bills and bonds.

Hope (1995) argues that debt is not a bad thing rather it can be proved to be very beneficial. For a developing country like Nigeria, the issue of debt can be crucial to its development for one thing. A developing country that is committed to an objective of rapid economic growth and industrialization would experience increasing demand for goods and services and the need for investment from advanced countries. Domestic savings are sufficient to import the needed capital goods for development. This is why foreign borrowing becomes necessary in order to maintain a fairly steady rate of economic growth. It was against this background that the need for external finance in the form of foreign loans appears unquestionable in our economy.

Countries experiencing fiscal deficits, especially the developing ones borrow to improve their economic growth. Government borrows in principle to finance public goods that increase welfare and promote economic growth(Ogunmuyiwa, 2011). Due to the fact that the domestic financial resources are not adequate, borrowing is acquired from foreign sources. The amount of fund provided by these foreign sources constitutes the external debt of a nation. In Nigeria, external debt is sourced from multilateral agencies, Paris club creditors, London club creditors, Promissory Note holders and other

creditors. External debt is one of the sources of financing capital formation in any country (Ayadi and Ayadi, 2008).

2.1.1 CAUSES OF NIGERIA'S EXTERNAL DEBT PROBLEMS.

The causes of the external debt problems have been traced to external and domestic economic factors. Although there can be no perfect distinction between the two groups of factors (Sanusi 1988). The two most prominent external factors were the liberal behaviour of international commercial bank of which Nigeria was a major World economic development in 1982. The rapid World economic growth of the 1970's consigned with low interest rates and high export growth, as well as the belief that countries never go bankrupt, particularly as a lot of the resources of the oil boom has to be recycled without the least concern for the risk of such actions. Subsequently, adverse World recession only helped to accelerate the emergence of more serious debt crisis rather than originate it. Ultimately, the fundamental cause of Nigeria external debt crisis must be traced to domestic economy.

Abdukadiri (1987) attributed Nigerian debt problem to the world oil market predominant consumption culture which led to massive importation, lack of financial discipline and depreciation of the united states dollar in relation to other Currencies made saving of non-dollar debt difficult.

Fajaniai (1987) attributed Nigeria external debt problems to these factors which have created saving and foreign exchange gaps and also made it difficult for such gaps to be finance by non-debt thereby creating foreign capital inflow.

Dalil, (1987) believes that the debt problem attained crisis due to the organization of petroleum exporting countries (OPEC) and the oil stock of the early 1970 as well as the improper lending portfolio on the part of the banks in advanced countries.

Klein (1994) and Ariyo (1997) noted that a fundamental factor causing debt to rise is the reliance on external resources to complement capital formation in the domestic economy. The higher the interest payment and the heavier the deficit on the current account, the heavier the debt burden. In accomplishing the objective of financing economic development, it is important to distinguish the characteristics and implications of the major financing sources – the debt and the non-debt sources. Debt sourced finance represents funds with fixed contractual obligations which will require pledging future resources of the nation as collateral. In order to cope adequately in the long run, with servicing requirement, a nation's debt service capacity must grow at a rate higher than that of its financial risk exposure. The non-debt resources on the other hand represent funds flow without fixed or compulsory servicing obligations on the government. The magnitude and regularity of such resources however, depend

on foreign investors' perception of the investment environment in the recipient country.

Available evidence particularly from Africa and Latin America shows that most developing countries take to external borrowing because of low domestic private savings in view of low per capital income and with most governments operating fiscal deficits. Consequently, the burden of external debt often aggravates the problems of underdevelopment and further discourages foreign direct investment without which the desired level and the rate of growth and development may be difficult to achieve.

2.1.2 NIGERIA'S DEBT MANAGEMENT STRATEGIES.

External debt management which may be defined as policy which seeks to alter the stock, composition, structure and terms of debt with a view to maintaining at any given time, a sustainable level of debt service payment, has become an important issue in macroeconomic management. It involves the planned acquisition, deployment and retirement of external loans drawn either for developmental purposes or for balance of payments accommodation (Ojo 1997). According to UNCTAD, this involves functions relating to policy, regulation, and resourcing, recording, analysis, control and operation activities.

Debt management can be effective and efficient or inefficient. Efficient debt management involves proper portfolio analysis which among others makes it possible for proper schedule of maturities to be compiled and adhered to in order to avoid bunching and defaults. When appropriate schedule of maturities is in place, debt retirement is made simple and early signals are readily observed when resources are slim and defaults become imminent. This makes it possible for appropriate actions to be taken to prevent serious debt management crises from reaching critical levels.

In effect, portfolio analysis is a major activity that should be undertaken if a country is to avoid debt overhang. This involves active and continuous review of debt portfolio to quantify and monitor the level of debt outstanding and debt service to ensure optimum structure and composition of debt vis-à-vis maturities, interest and exchange rate exposure. It highlights opportunities for portfolio improvement and identifies debt servicing difficulties. This activity also involves the review of economic background; portfolio by creditor, borrower and the use of funds; the debt service projection; actual management of debt; as well as issues relating to institutional arrangements involving guarantee, procedure and information flow.

In the 1980's, the management of external debt became a major responsibility of the Central Bank of Nigeria (CBN). This necessitated the establishment of a

department in collaboration with the federal ministry of finance of the management of external debt, the following measures were used.

2.1.2.1 LIMIT ON DEBT PAYMENTS.

This requires setting aside portion of export earnings to allow for internal development. In this regard, the state government were required in 1980 to spend not more than 10 per cent of their total revenue on debt service payment based on the agreement with the federal ministry of finance. A defaulting state government can be bailed out, although the amount in default world is deducted at source from its budgetary allocation. In the case of the federal government, a maximum of 30 percent of export earnings could be allocated for debt servicing.

2.1.2.2 DEBT RESTRUCTURING

This involves the reduction in the burden of an existing debt through refinancing, rescheduling, issuance of collateralized bonds and the provision of new money. The federal government in the year 2001 established a semi autonomous debt management office under the presidency. The creation of debt management office (DMO) consolidated, the debt recording and management activities, including debt service forecast, debt service repayments and advising on debt negotiation as well as new borrowings.

2.1.2.3 DEBT CONVERSION

This was introduced to complement other strategies of debt management. Debt conversion in a broad sense is the exchange of monetary instruments (promissory notes for tangible assets or other financial instruments). It is a mechanism for reducing a country's external debt burden by changing the character of the debt conversion comes in various form and includes debt for equity and debt for cash. In Nigeria, the debt conversion exercise involves the sale of our external debt instrument for a document debt or equality participation in domestic enterprises.

According to Sanusi (1988) debt conversion is a process by which institutions corporate bodies and person to whom Nigeria is indebted abroad exchange the debt for equity or share of Nigeria enterprises. According to him, it simply implies the replacement of foreign investment.

The debt conversion committee (DCC) was established in July 1988 to implement Nigeria's debt conversion programme. Essentially, the programme is aimed at staming the tide of resource transfer through the encouragement of capital inflow, repatriation of flight capital and recapitalization of enterprises in the private sector. Through the appropriation of the substantial discount offered and the commission paid, the country benefits reduce its debt stocks.

2.1.3.4 DEBT CANCELLATION

This is another vital position of debt reduction. It is not also a natural occurrence in the case of Nigeria. Apart from the fact creditors have frowned at such suggestions, it may also limit or cut off capital flow to the beneficiary in future because of the built risk of such flows. Partial debt cancellation has been done to favour the low income countries in sub-Saharan Africa. But Nigeria is classified as a middle country and her current economic problems which are regarded as temporary; she is generally regarded as capable to pay her external debt obligations. However, Nigeria has enjoyed some debt outstand and recently had debt cancellation in 2007 through the help of Ngozi Okonjo Iweala.

2.1.3 ROLE OF EXTERNAL DEBT/ BORROWING IN ECONOMIC GROWTH.

In order to finance economic development and enhance the pace of economic growth, countries especially in developing world, resort to foreign borrowing to supplement domestic savings, which are generally low and also for investment. Other external sources of such resources include foreign direct investment and aid.

Rostow (1971) observed that the right quantity and mixture of savings, investment and foreign aid are necessary for the developing economics to

proceed along an economic growth path which was followed by the advanced economics available evidence particularly from Africa and Latin America shows that most developing countries take to external borrowing because of low domestic private savings in view of low per capita income and with most governments operating fiscal deficits.

Empirical evidence has however shown that foreign borrowing go beyond the purpose of investment and imports. It can also be used to shield consumption from fluctuations in the level of income. The analysis of external debt sustainability is inherently forward looking. A number of factors come into play to establish if a country will be able to service its debt. These factors include the existing debt stock and associated debt service, the prospective path and evolution of its repayment capacity in terms of foreign repayment capacity in terms of foreign currency value of GDP, exports and government revenues, projections of the debt dynamics provide a link between debt sustainability and macro-economic policy. The integrity of such projections determines the extent of their usefulness in establishing debt sustainability.

The use of foreign capital overcomes not only capital deficiency, but also technological backwardness. Foreign capital brings sufficient physical and financial capital doing with technical know-how, personnel, organizational experience, advanced production techniques, innovations in product etc.

According to Oyejide (1985) foreign borrowing has two major benefits for the debtor country if used wisely. It could promote economic growth of the debtor country making it possible to increase investment faster than the rate on the basis of the countries own domestic debt. Secondly, it can help the economy to adjust to external and internal shocks cause for instance failure or sudden changes in price of an export commodity. Foreign borrowing if asserted plays the role of “stock absorber” which enables a country to adjust its spending pattern gradually and relocate its resources in the light of the new internal and external economic realities.

Ahboit (1979) emphasized that despite the problem or hardship derivable from external borrowing, its significance in the achievement of economic growth in the developing countries cannot be underestimated if properly utilized.

2.2 EMPIRICAL LITERATURE

Ayadi (2008) examined the impact of the huge external debt, with its servicing requirements on economic growth of the Nigerian economies. The Neoclassical growth model which incorporates external debt, debt indicators, and some macroeconomic variables was employed and analysed using both Ordinary Least Square (OLS) and Generalized Least Square (GLS) methods. Their finding revealed negative impact of debt and its servicing requirement on the economic growth of Nigeria.

Ogunmuyiwa (2011) examined whether external debt promotes economic growth in Nigeria using time-series data from 1970-2007. The regression equation was estimated using econometric techniques such as Augmented Dickey-Fuller test, Granger causality test, Johansen-co-integration test and Vector Error Correction Method (VECM). The results revealed that causality does not exist between external debt and economic growth in Nigeria. Adesola (2009) empirically investigated the effect of external debt service payment practices on the economic growth of Nigeria. Ordinary Least Square method of multiple regressions was used to examine how debt payment to multilateral financial creditors, Paris club creditors, London club creditors, Promissory Notes holders and other creditors relates to gross domestic product (GDP) and gross fixed capital formation (GFCF) using data from 1981 to 2004. The study provides evidence that debt payment to Paris club creditors and Promissory Notes holders are positively related to GDP and GFCF while debt payment to London club creditors and other creditors show a negative significant relation to GDP and GFCF.

Audu (2004) examined the impact of external debt on economic growth and public investment in Nigeria from 1970-2002. The empirical investigation was done using the Co-integration test and Error Correction Method. The study shows that debt servicing pressure in the country has had a significant adverse

effect on the growth process and past debt accumulation negatively affect public investment.

Adepoju, Salau and Obayelu (2007) analysed the effects of external debt management on the economic growth of Nigeria for a period of 1962 to 2006 using time-series data of the various bilateral and multilateral arrangements. Their study concluded that accumulation of external debt adversely affected Nigeria's economic growth.

Ocampo (2004) proclaimed that the external debt situation for number of low income countries, mostly in Africa has become extremely different. For their countries, even full use of traditional mechanism of rescheduling and debt resection together with continued provision of concessional financing and pursuit of sound economic policies may not be sufficient to attain sustainable external debt levels within a reasonable period of time and without additional external support.

Ojo (1989), was of the belief that it is no exaggeration to claim that Nigeria huge external debt is one of the hard knots of the Structural Adjustment Programme (SAP) introduced in 1986 to put the economy on a sustainable path of recovery. The corollary of this statement is that of only the high level of debt service payment could not reduce significantly; Nigeria would be in a position to finance larger volume of domestic investments, which would enhance

growth and development, but more often than not, a debtor as only limited room to manage a debt crisis to advantage.

Smyth and Hsing (1995) have tried to test the federal government debts impact on economic growth and examine if an optimal debt ratio exists that will maximize the economic growth. The author calculated the optimal debt ratio (DEBT/GDPT), which represents the maximum real GDP growth rate (38.4%). The DEBT/GDP ratio corresponding to the maximum GDP growth rate is 38.4 percent.

In an empirical study covering 29 sub-Saharan African confirms this finding as he identifies a non-linear effect of external debt on growth. Pattitis et al (2002) confirms this finding and show that the average effect of debt on growth becomes negative when the ratio of debt to GDP exceeds a threshold between 35 percent and 40 percent. This non-linear effect is also confirmed by Clements et al (2003) and Cordella and Aranz (2005).

Amaeteng and AmoakoAdu (2002) the empirical study declared that there is a unidirectional and positive causal relationship between foreign debt service and GDP growth after excluding exports revenue growth for Africa and South of Saharan countries during 1983-1990. These people argued that whether indebtedness impacts on the economic activity of developing countries. It is also argued that if foreign loan are converted into capital and other necessary

inputs, development will occur. On the other hand, if borrowing countries misallocate resources or divert them to consumption, the economic development is negatively affected. This study employs the frame work of granger.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

A stable econometrics research concerned with the measurement of parameters of economic relationship with the prediction of values of economic variables by means of these parameters. The economic methodology adopted for this project is the ordinary least square (OLS). This is backed by economic theory and relevant time series which is a period of 21 years that is 1989-2009.

Since the study is basically to examine effect of external debt on the Nigerian economy and we are making use of gross domestic product (GDP) as an indicator for development. Based on that, we shall make use of simple analytical model. In this study, we shall examine the relationship between gross domestic product and external debt. Our $GDP = f(ExD)$. This study will be expressed in the following linear equation

$$Y = a_0 + a_1X_1 + a_2X_2 + a_3X_3 + u$$

Where:

u = dependable variable, which is our GDP

$X_1X_2X_3$ = independent variable, which is external debt, domestic savings and exchange rate and

U= unexplained variable, which is error term.

But in order to show systematically and expository on how the study will be carried out based on statistical tool called econometrics. We shall also use the following in testing stage of our estimation such as R-square, which is regression coefficient of determination. This is used in testing the explanatory power of the variables employed and to see whether it has a huge explanatory power of the variables employed and at the same time if it has a good fit with respect to the model. The t-test is basically used in testing regression from zero and it serves as means of predicting the independent variable power. The t-test will also be employed to show whether the model is fit for the course of the study.

3.2 METHODOLOGY

This chapter is strictly concerned with the source of the data to be used, the techniques to be used, in the course of this project. The techniques to be employed are based on time series data and the specification of model and the approved expectations based on economic theory.

3.3 MODEL SPECIFICATION

3.3.1 DEPENDENT VARIABLE

Gross domestic product: this is chosen as a dependent variable in the course of this study because it is used as an indicator for accessing economic development based on the Nigerian economy's performance.

3.3.2 EXPLANATORY OR INDEPENDENT VARIABLE

External debt: this is employed as an explanatory variable in the course of this study because it shows an inflow of resources into a nation that supposed to influence the growth in GDP towards attaining the sustainable economic development. Since external debt is money owned to international institutions, the expected sign of regression coefficient of external debt is positive.

3.3.3 STRUCTURAL PRESENTATION OF THE MODEL.

This could be symbolically expresses as

$$\text{GDP} = f(\text{ExD}, \text{DS}, \text{ExR}) \text{-----} 1$$

$$\text{This can be written as } Y = f(x_1, x_2, x_3) \text{-----} 2$$

Where y =gross domestic product (GDP)

X_1 = External debt (ExD)

X_2 = Domestic savings (DS)

X_3 = Exchange rate (ExR).

3.3.4 MATHEMATICAL PRESENTATION OF THE MODEL.

This can be presented mathematically in a single equation in linear form

$$Y = a_0 + a_1X_1 + a_2X_2 + a_3X_3 + U$$

Where a_0 = the regression constant that shows the intercept of the equation.

a_1, a_2, a_3 is the parameters to be estimated

U = error term which takes into account all other variables not specified in the model.

3.4 METHOD OF EVALUATION.

From the model specification we can observe the method of our evaluation and how that mathematical function is applied from the above model specification given. A_0 should be positive due to its explanation of external debt. In trying to choose among various methods of estimation available, emphasis is been laid on the one with a good small property.

1) TEST FOR AUTOCORRELATION: This is to test whether the errors corresponding to different observations are uncorrelated. The test will adopt the Durbin in statistics because of the presence of the lagged dependent variables as are of the regression which indicates that the model is an auto regression model.

2) TEST FOR MULTICOLLINEARITY: This will be used to check for multicollinearity among the explanatory valuable basis for the test being the correlation matrix result using the correlation coefficient between pair of regressions.

3) HETEROSCEDASTICITY TEST: The third assumption about the random term U_1 is that its probability remains the same over all observation for X_1 and also that the variance of each U_1 is the same for all values of the explanatory variables. This test is used for testing whether the error term in the regression model, have a common or constant variance. The white hetroscedasticity test (With no cross terms) is adopted.

4) NORMALITY TEST: It will be tested to see if the error term of the model is normally distributed, for this purpose jarque-bera test of normality will be employed.

3.5 JUSTIFICATION OF THE MODEL

The following are the reasons for the preference of this technique in estimating the model. The phenomena which this work seeks to investigate are a simple one that requires only a single model; that is it involves a linear relationship between dependent and explanatory variables. Thus, the ordinary least square (OLS) techniques is the most suitable for the estimation of this model.

This work lays emphasis on the statistical significance of the variables. Thus, the ordinary least square estimator possesses blue properties of best linear and unbiased estimator.

The ordinary least square techniques is relatively simple to use and there are also readily available software package for use like the MS-EXCEL, PG-GIVE, E-VIEWS and SPSS etc. that are user friendly. However, PG-GIVE 0.8 statistical package will be used for this analysis.

3.6 SOURCES OF DATA AND METHOD OF COLLECTION

The data used in this research is secondary data. All the statistical data for the study are obtained from the Central Bank Statistical Bulletin (2009). Other data were obtained from journals, textbooks, etc.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION OF RESULT

4.1 PRESENTATION OF RESULT

The regression result is presented in the table below. This is in line with the model specification in chapter three.

TABLE 4.1: Modeling Y by OLS

Variable	Coefficient	Std. Error	t-value	t-prob	PartRy
Constant	-3.5222e+005	1.583e+006	-0.222	0.8268	0.0029
X1	-2.4509	0.90639	-2.704	0.0151	0.3007
X2	-0.035627	0.98426	-0.036	0.9715	0.0001
X3	1.4535e+005	25815.	5.630	0.0000	0.6509

Ry = 0.753619 F(3, 17) = 17.333 [0.0000] DW = 2.46

Ry = Coefficient of multiple determination

F = Overall test of significance

DW = Durbin-watson statistic

4.2 RESULT INTERPRETATION

4.2.1 ANALYSIS OF REGRESSION COEFFICIENTS:

- **Constant:** The constant has a value of -3.5222, which means that if all independent variables are held constant, the value of the gross domestic product will be -3.5222.
- **External debt (X1):** External debt has a negative value of -2.4509. This implies that with a unit change in X1, the gross domestic product will decrease by 2.4509 units.
- **Domestic savings (X2):** Domestic savings has a negative value of -0.035627, which shows that with a unit change in X2, the gross domestic product will decrease by 0.035627 units.
- **Exchange rate (X3):** Exchange rate has a positive value of 1.4535, which means that with a unit change in X3, the value of the gross domestic product will increase by 1.4535 units.

4.2.2 STATISTICAL EVALUATION OF RESULT

1. THE COEFFICIENT OF DETERMINATION (R²)

From the result, the value of R² is 0.753619. This means that the explanatory variables explain much of the variations in gross domestic product to the tune of 75.3619%.

2. STUDENT T- TEST.

The student t-test involves comparing the t-calculated to its tabulated value which define the critical region in a two-tailed test, with n-k degree of freedom, (n = sample size and k = total number of estimated parameters).

The null hypothesis

Ho: B = 0 – Not statistically significant

Hi: B ≠ 0 – Statistically significant

DECISION RULE:

Reject Ho if t-calculated > t-tabulated or accept if otherwise. The result is presented below:

Table 4.3: The t-test

VARIABLE	T-VALUE	T-TAB(0.025)	RESULT
CONSTANT	-0.222	±2.1098	Not significant
X1	-2.704	±2.1098	Significant
X2	-0.036	±2.1098	Not significant
X3	5.630	±2.1098	significant

Note: n – k = 21 – 4 = 17

The above result shows that external debt and exchange rate are significant, while the constant and domestic savings are insignificant.

3. F-TEST

The F – test is used to test the joint influence of the explanatory variables on the dependent variable.

$$F - \text{cal} = 17.333$$

$$F\text{-tab} (3, 17) = 3.20$$

Accept H_0 if $F\text{-calculated} > F\text{-tabulated}$ at $(K-1, n-k)$ degree of freedom.

Therefore: since $17.333 > 3.20$.

We reject the null hypothesis and accept the alternative hypothesis, that the relationships between external debt, domestic savings and exchange rate is statistical significant.

4.2.3 ECONOMETRIC TEST (SECOND ORDER TEST)

a. Test for autocorrelation

The Durbin-Watson d^* statistics would be used to test for the presence of autocorrelation. The decision rule is given below:

Table 4.4: Decision Rule

NULL HYPOTHESIS	DECISION	IF
No positive autocorrelation	Reject	$0 < d^* < d_L$
No positive autocorrelation	No decision	$d_L \leq d^* \leq d_U$
No negative autocorrelation	Reject	$4 - d_L < d^* < 4$
No negative autocorrelation	No decision	$4 - d_L \leq d^* \leq 4 - d_U$
No autocorrelation positive or negative	Do not reject	$d_U < d^* < 4 - d_U$

Given:

Durbin Watson $d^* = 2.46$

$d_L = 1.2461$ – lower limit

$d_U = 1.53849$ – upper limit

Hence we use $d_U < d^* < 4 - d_U$: therefore $1.53849 \leq 2.46 \leq 2.64$.

From the result, d^* falls within the range where we reject the null hypothesis, and conclude that there is no positive or negative autocorrelation.

b. NORMALITY TEST

The null hypothesis for the test is

$H_0: b_i = 0$ (The error term follows a normal distribution).

$H_1: b_i \neq 0$ (The error term does not follow a normal distribution).

At 5% with 2 degrees of freedom;

$$X^2 - \text{cal} = 11.946$$

$$X^2 - \text{tab} = 5.991$$

The decision rule is to reject H_0 if $x^2 - \text{cal} > x^2 - \text{tab}$

Since $x^2 - \text{cal} > x^2 - \text{tab}$ i.e. $11.946 > 5.991$, we reject H_0 and conclude that the error term does not follow a normal distribution.

c. TEST FOR MULTICOLLINEARITY.

The test was carried out using the correlation matrix. According to Barry and Feldman (1985) criteria "multicollinearity is not a Problem if no correlation exceeds 0.80"

TABLE 4.5: Correlation matrix

	Y	X1	X2	X3
Y	1.000			
X1	0.603	1.000		
X2	0.4642	-0.2411	1.000	
X3	0.7712	0.6152	0.3194	1.000

Form the above table, no pair-wise has a correlation in excess of 0.8; therefore we conclude that multicollinearity does not exist between any pair-wise.

d. HETEROSCDASTICITY TEST:

This test is carried out to evaluate the levels of distribution of the error term. It is used to test the variance of error term is constant. It follows chi-square distribution with degrees of freedom equal to the number of regression in the auxiliary regression in excluding the constant.

Test hypothesis:

Ho: Homoscedasticity (The variance of the error term is constant)

Hi: Heteroscedasticity (The variance of the error is not constant)

@ 0.05 (5% significance level)

The decision rule is to reject H_0 if $x^2\text{-cal} > x^2\text{-tab}$.

From the Heteroscedasticity test result, $x^2\text{-cal} = 8.0375$ (@ 6 degrees of freedom), while from the $x^2\text{-tab}$ (@ 0.05 degrees of freedom) = 12.592.

Since $x^2\text{-cal} < x^2\text{-tab}$, we accept H_0 and conclude that the variance of the error term is constant.

4.3. HYPOTHESIS TESTING:

H_0 : There is no relationship between external debt and economic growth in Nigeria.

H_0 : Exchange debt does not have any impact on economic growth in Nigeria.

H_0 : Domestic savings does not have any impact on economic growth in Nigeria.

CONCLUSION: From the various tests carried out, external debt was revealed to have a negative relationship with the gross domestic product. The individual significance test showed that external debt and domestic savings have a significant and insignificant impact on the gross domestic product, respectively.

Hence we can conclude by rejecting the three (3) null hypotheses, and inferring that external debt has a relationship and a significant impact on

economic growth in Nigeria, while domestic savings has an insignificant impact on economic growth in Nigeria.

CHAPTER FIVE

5.1 SUMMARY OF FINDINGS

It is generally expected that Nigeria as a developing country, facing inadequate capital, will acquire external debt to supplement domestic savings. The rate at which she borrows abroad, the “sustainable” level of foreign borrowing depends on the links among foreign and domestic saving, investment, and economic growth. The main lesson of the standard “growth with debt” from literature is that a country should borrow abroad as long as the capital thus acquired produces a rate of return that is higher than the cost of the foreign borrowing. In that event, the borrowing country’s increasing capacity and expanding output with the aid of foreign savings.

Following the findings in this study, we observed that accumulation of external debt and domestic savings are the two key indicators that exert pressure on the strength of our domestic economy. “However, it was noted that the presence of exchange rate was not much observed in the analysis, not minding that exchange rate is one of the most important indicator of external borrowing in an economy. Thus, the low coefficient of this exchange rate variable was attributed to the unrealistic exchange rate in the economy over the period of this study. Traditionally, the purpose of acquiring this loans would have been for development and balance of payment purposes but over

the period many of the projects has been seen abandon while other were diverted to other sectors which need not such fund.

From the analytical point of view, it is not so apparent why such a policy targeting should be problematic and a source of policy dilemma. In effect, under a complete market structure, the choice of a specific exchange rate regime should be neutral. In other words, it should have no real effect. If market were competitive, the rules specified by the country's monetary authorities, to buy and sell different currencies and to manage the money supply would only affect the equilibrium value of the nominal variables.

From the foregoing, we established a fact that the performance of external debt outstanding measure that will propel the Nigerian economy to a greater height has not been designed. And for this, the different authorities and institutions that are faced with this responsibility have to be proactive for the countries rapid economic taken off.

Again, from the established results, both in the theoretical and empirical works, we conclude that if monetary policies in Nigeria are perfectly coordinated and implemented, it will reposition the country's external borrowing in such a way it will help the economy to attain enviable height. The country's debt problems are due to weak crude oil market policy, indiscriminate external borrowing policy, high and floating interest rate, short

maturities of debt and grace period, mismanagement of borrowed funds by the authorities in charge, excessive use of short and medium term loans and the harsh international financial system which makes the debt to grow out of control.

Finally, in theory, it is possible to calculate the sustainable level of foreign borrowing, for example, on the terms and availability of foreign capital. In practice, however, the task is nearly impossible, since such information is not readily available thus, various ratios, such as that of debt to exports, debt service to exports, and debt to GDP (or GNP), have become standard measure of sustainability. Even though is difficult to determine the sustainable level of such ratios, their chief practical value is too warn of potentially explosive growth in the stock of foreign debt. If additional foreign borrowing increases the debt-service burden increases more than the country's capacity to carry that burden, the situation must be reversed by expanding exports. If it is not and conditions do not change, more borrowing will be needed to make payments, and external debt will grow faster than the country's capacity to service it.

5.2 RECOMMENDATIONS

The theoretical and empirical literature reviewed confirms that the effect of external debt on the economic growth of any nation cannot be over

emphasized, and on this ground, the following policy recommendations are suggested.

- a) Firstly, external debt cannot be well managed without a strong data base. Given the magnitude of public debt in Nigeria and the volume of international loans and trade transaction involved, such a data base cannot be built manually. There is need for a computer based debt management system. Thus, the acquisition of the common wealth secretariat debt management recording system is a welcome development in the competition of debt. The central Bank should acquire this type of technology and also train efficient staff in the technicalities of debt management since the database is only a resource or a means to enhance and not the end of debt management.
- b) Government should harmonize monetary policies and fiscal policies in such an acceptable level. This will curtail monetary expansion thereby reducing inflationary pressure in the economy. This will create an enabling environment, which will give room to productive investment, which will contribute to a favorable balance of payment. To achieve this, interest rate should be pegged to promote effective mobilization of savings, so as to improve the current account of the balance of payments.

- c) Government should incorporate debt management that will constitute an integral part of our overall development strategy especially in the light of the country's adverse balance of payments problems.
- d) Government can achieve this through the restructuring of her external debt so as to reduce debt servicing payment to a level that will release resources for domestic use in the productive sectors of the economy. To achieve this objective, the need to conclude a medium term economic restructuring programme with the IMF becomes compelling.
- e) Ensuring current restructuring programme of trade arrears and her medium term loans with the Paris London clubs is a necessary way to reduce the current debt service burden; this will create more economic resources used in financing economic development.
- f) That the choice of exchange rate regime in Nigeria should be amended in order to control the failure of real exchange rate regime the monetary authorities must decide on three key elements: First the desired degree of the autonomy of monetary policy: second, the degree of openness of the capital account, and the third, the degree of openness of the capital account, and the world the degree of nominated exchange rate flexibility.

- g) The crisis and the difficulties encountered by Nigeria in recent years in serving the debts can be checked by encouraging genuine foreign investors through the favorable policy formulation.
- h) External loans acquired must be strictly invested in production activities rather than on white elephant projects with minimum benefit to the generality of the country.
- i) Desirable and genuine debt relief measures should be pursued to enable the country to grow out of its debt of accumulated debt profile.
- j) Also projects to be financed with the external loans must be properly analyzed and their technical financial liability and economic desirability ascertained beyond every reasonable doubt before funds are committed to such project.

Finally, external debt can be avoided by Nigerian Government totally because Nigerians attitude towards money cannot be changed since it is now said that corruption is a tradition of the rich country and endowed with a lot of resources. These resources should be used effectively.

5.3 CONCLUSION

This study has shown that the Nigerian external debt has contributed greatly to the macro-economic problem facing the country. This attributed to external

debt management, leaders and choice of policies initiated over the years. Also the ineffective and inefficient external debt management has contributed to the alarming rate of unemployment, balance of payment deficit, Inflation and the state of stagnancy in the economic growth of the country. This shows that the external debt mismanagement has a multiplier effect in causing other major macroeconomic problem in this country.

Conclusively, external debt based on the study carried out on Nigeria between 1989 - 2009 has not brought about constant economic growth and only constant economic growth brings about economic development.

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