National Budget and Debt as Measures of Public Sector Performance: Empirical Evidence from Nigeria

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Abstract

Changing the bureaucratic culture of public sector into one that stresses client service and achievement of results, require public sector to clearly define its objectives and priorities as well as assessing its performance against well-defined benchmarks. The objective of this study is to empirically investigate the relationship between national budget and debt as measures of public sector performance. The data for the study were basically secondary data about Nigeria government as an emerging economy for the period 1960-2010. The data so collected were subjected to regression analysis, with budget performance as the independent variable and domestic, external and national debt as dependent variables. Augmented Dickey-Fuller Tests equation was employed to perform unit root tests for stationary and cointegration tests. The findings show that there is significant relationship between budget performance and domestic, external and national debt and these are appropriate and adequate in measuring public sector. The results also indicate that the poorer the budget performance the more the burden of national debt and its attendant cost, resulting into poor public sector performance and national underdevelopment. It is recommended that government should as a matter of transparent accountability prepare budget on accrual basis and put in place structures and mechanisms that will ensure the enactment of federal law making provisions for the amount that the government can borrow and the debt ceiling, which can only be increased with a vote by National Assembly.

Keywords: Public sector, Performance measurement, Budget performance, National debt, Surplus budget, Deficit budget

1. Introduction

The concept of performance encompasses the efficiency of a project or activity—the ability to undertake an activity at the minimum cost possible. It also includes effectiveness—whether the objectives set for the activity are being achieved (Mackay, 1998). Performance measurement is the comparison between plans and actuals and it is a valuable exercise which provides an opportunity and a framework for asking fundamental questions such as: What are we trying to achieve? What does "success" look like? How will we know if or when we have achieved it?

In response to the global financial crisis, in 2009, IFAC recommended to G20 that governments, like companies, need timely and accurate financial information to monitor and manage their performance. Traditionally, companies' performances are measured using details on their profit and loss account, including the balance sheet. Contrary, government performance is evaluated based on key fiscal and monetary indicators and objectives, which include general economic growth, price stability and inflation rate, employment of resources, income redistribution, gross domestic product (GDP), per capita income, standard of living, exchange rate, employment rate, and debt burden among others.

The public sectors of different countries are shaped by many factors, but they share common challenges. Those challenges make public sector performance management more complex than it is in the private sector. The generally simpler environment of the private sector and its efficient evolution of best practice allow companies to benefit from tools and insights that are the envy of managers in the public sector (Louise, 2011). In the same vein, it can be assumed that performance is also a dynamic concept that varies across geographical as well as scholarly "schools of thought". Meaning that, what is defined as performance and its crucial elements changes and differs depending on time and space. Thus, though it is the most popular concepts in current public management theory and practice, public sector performance is an ambiguous, multi-dimensional, and complex concept (Lukas and John, 2009). Obviously, performance in the public domain is an elusive concept (Stewart & Walsh, 1994) and therefore difficult to define and measure (Lukas & John, 2009) because *"stakeholders often disagree about which elements of performance are most important, and some elements are difficult to measure [… and because] tinkering with agency performance also has strong political implications"* Brewer & Selden (2000).

Though no public sector can afford to overlook the importance of clearly defining its objectives and priorities as well as assessing performance against well-defined benchmarks, there exist many types of public sector performance evaluation tools including on-going monitoring and performance information; project and program evaluation—ex ante, on-going/formative and ex post/summative; performance (or value-for-money) audits; financial auditing among others. For the fact that measurement findings can be an important input for government decision-making and prioritization, particularly in the budget process, budget performance can equally be employed as an appropriate base to measure the performance of public sector (Mackay, 1998). Therefore, with the New Public Management (NPM) movement in general and for the fact that since the late 1 980s, performance

measurement, in particular, have been offered as approaches to help governments reduce their annual budgetary deficits, lower their accumulated debt and improve service delivery (IPAC), this study seek to investigate the relationship between national budget performance and national debt as measures of public sector performance of an emerging economy like Nigeria.

This study is divided into the following sections. Section one is the introduction. Section two discusses related literatures on public sector, performance measurement, usefulness of public sector performance measurement results, the budget as a performance indicator, budget performance, national debt and budget performance, constraints of performance measurement of public sector and Nigeria country profile. Section three focuses on the methodology. Section four is centred on data presentation, analysis, interpretation of results and lessons for past and present Nigerian administration. Section five is all about conclusions and possible recommendations.

2. Review of Related Literature

2.1 Public Sector

The importance of the public sector is an indisputable social and economic reality throughout the world (Messaoud, 1999). This is because only the public sector can effectively and efficiently carry out certain functions and indeed only national governments can assume the responsibilities that affects the state as a whole (Natural Resources Management and Environment Department, 2003). The public sector sometimes referred to as the state sector or the government sector, is a part of the state that deals with either the production, ownership, sale, provision, delivery and allocation of goods and services by and for the government or its citizens, whether national, regional or local/municipal (Mayhew, 2009). Examples of public sector activity among others include delivering social security, administering urban planning and organizing national defence.

Messaoud (1999) defines public sector as all market and non-market activities which at each institutional level are controlled and mainly financed by public authority. It is composed of a general government sector and a public corporation sector. It is the part of the economy concerned with providing basic government services. Consistent with SNA 93, he further diagrammatically gave the decomposition of public sector as presented below. Thus, the general government is made up of all the government units, social security funds and non-profit non-market public or private institutions which are controlled and mainly financed by public authority. On the other hand, the public corporation sector comprises all of the intuitional units which produce for the market and are controlled and mainly financed by public authority.

Public Sector

Central level, federal state level (or regional level) & local level

Institutions controlled and mainly financed by public authority

General government sector

Government units	Social security funds	Non-profit non-market institutions

Public corporation sector

Non-Market institutions	Market institutions
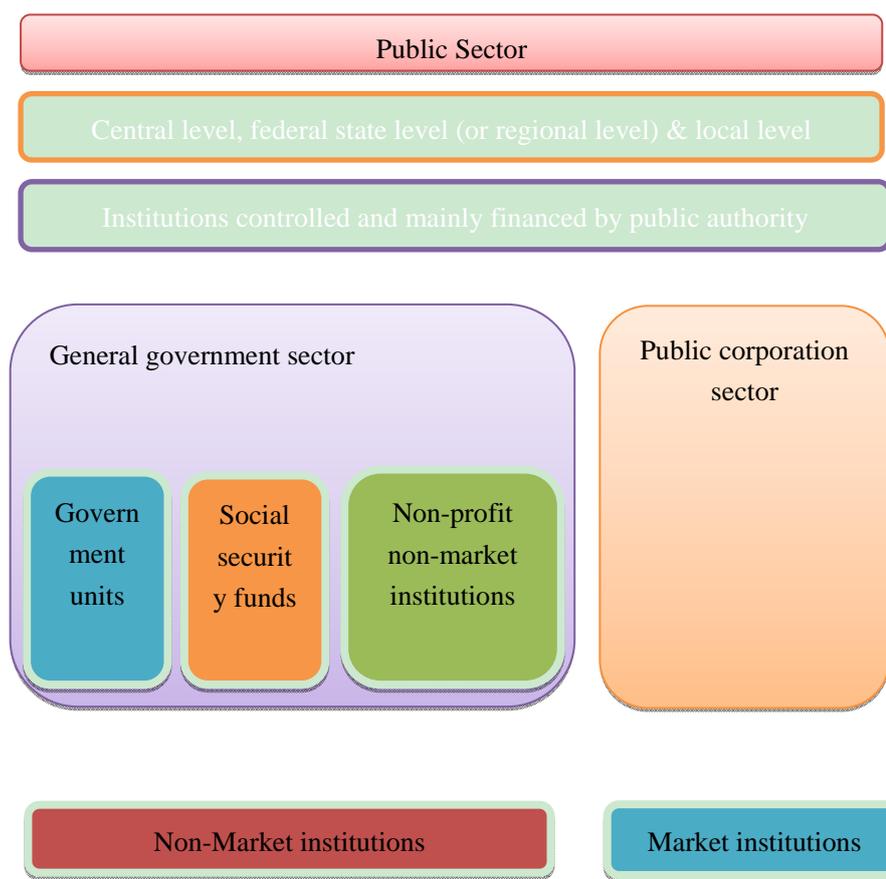
Source: Messaoud (1999)

It is impossible to discuss the 'global' public sector, as there are so many variations in the scope and shape of public sectors in the 196 countries of the world (Louise, 2011). The public sector in any country is shaped by a combination of various factors, including its economic performance, political philosophy, extent of involvement of external agencies (e.g. aid agencies) and demand from its population for services and infrastructure. However, in most countries the public sector includes such services as the police, military, public roads, public transit, primary education and health care for the poor. It is worthy to note that though the major source of revenue to the public sector is taxation, the public sector might provide services that non-payer cannot be excluded from (such as street lighting), services which benefit all of society rather than just the individual who uses the services (such as public education), and service that encourage equal opportunity.

2.2 What is Performance Measurement?

The Institute of Public Administration of Canada (IPAC) posits that performance measurement is an on-going process of ascertaining how well, or how poorly, a government program is being provided. It involves the continuous collection of data on progress made towards achieving the program's pre-established objectives. Performance indicators, or measures, are developed as standards for assessing the extent to which these objectives are achieved.

To understand clearly the concept of performance measurements IPAC deemed it necessary to distinguish performance measurement from several related concepts. First, the terms performance measurement and performance management are often used interchangeably. However, performance management is a broader term that includes not only performance measurement but also the determination of the appropriate level of performance, the reporting of performance information, and the use of that information to assess the actual level of performance against the desired level. Second performance measurement is often confused with program evaluation, which is an in- depth study conducted on a periodic, rather than an on-going, basis to determine, in the light of current conditions, whether the objectives of a program are still appropriate, whether it is properly designed, and whether it is achieving adequate results. Performance measures are a valuable input into a program evaluation.

Finally, performance measurement is sometimes mistaken for performance evaluation (or performance appraisal), which is a concept associated with human resource management that refers to the systematic collection and analysis of data on the performance of an employee over time.

2.3 Why Measure Performance?

IPAC affirmed that the current focus on performance measurement in the public sector has been significantly influenced by the New Public Management (NPM) movement, which, following private sector practice, places heavy emphasis on managing for results. Behn (2003) identified eight purposes for which public managers have for measuring performance as tabulated below:

Table 1. Eight Purposes that Public Managers Have for Measuring Performance

The purpose	The public manager's question that the performance measure can help answer
Evaluate	How well is my public agency performing?
Control	How can I ensure that my subordinates are doing the right thing?
Budget	On what programs, people, or projects should my agency spend the public's money?
Motivate	How can I motivate line staff, middle managers, non-profit and for-profit collaborators, stakeholders, and citizens to do the things necessary to improve performance?
Promote	How can I convince political superiors, legislators, stakeholders, journalists, and citizens that my agency is doing a good job?
Celebrate	What accomplishments are worthy of the important organizational ritual of celebrating success?
Learn	Why is what working or not working?
Improve	What exactly should who do differently to improve performance?

Source: Behn (2003)

Thus, consistent with The Organisation for Economic Co-operation and Development (OECD), measuring government performance has long been recognised as necessary for improving the effectiveness and efficiency of the public sector.

2.3.1 The Budget as a Performance Indicator

The main financial document that reflects the state policy regarding the set up and the use of public resources is the budget (Attila, 2010). A budget is also a forecast of expenditures and revenue for a specific period of time; usually one year. As a planning document a budget enables business, government, private organizations and households to set the priorities and monitor progress toward selected goals (Abdullahi, 2011). To David (2007) the budget itself is a financial document, but in fact it is much more than that. It is a financial document that reflects program planning and service priorities in financial terms and also, ideally, in terms of performance expectations. Budget can be used as a benchmark, as a control system, that allows managers to compare actual performance with estimated or desired performance (Silva & Jayamaha, 2012). Following David (2007) a good set of performance measures is a vital tool for building accountability and support of planning/budgeting efforts. True accountability means more than just assuring the public that revenues are properly collected and reported and that expenditures are made in accordance with prescribed procedures. Accountability includes these important assurances but also entails assurances to the public that government resources are being spent wisely as well as legally and that services of good quality are being produced efficiently. Therefore because the budget is the financial interface between the internal environment and the exterior environment of the entity (Attila, 2010), its performance in terms of its transparent implementation and execution, can be employed in judging the performance of the public sector.

2.3.2 Budget Performance

Operationally, in the words of KCL (2012) budget performance is defined as a comparison between estimated revenues and expenditures and actual revenues and expenditures resulting into either a deficit (where aggregate expenditures of the government is greater or more than its total revenues collected within a given period), a surplus (where government expenditures is less than its revenues) or an equilibrium/balanced budget (where total revenues of the government equal the total expenditures). A confirmation from Sheriffdeen (2012) indicate that while a surplus budget occurs when the proposed expenditure is less than the expected revenue, implying some saving at the end of the budget year, deficit budget is a situation in which the expected revenue is lower than the proposed expenditure, to be financed from accumulated savings or borrowings. Better still, balanced budget means equality between estimated revenue and proposed expenditure. The approach of defining budget performance in terms of deficit, surplus and balanced budget was adopted by Sahaj (2001) and the National Bank of Slovakia in measuring public sector budgetary performance results of the Slovak Republic for the year 2001 with efforts geared toward ensuring the steady progress of the state in implementing various reform measures of the government directed at gradually lowering or eliminating over the long term the deficit in the public sector budgetary performance. Graphically, these situations are depicted below:

Graphical Presentation of Deficit, Surplus and Balanced Budget
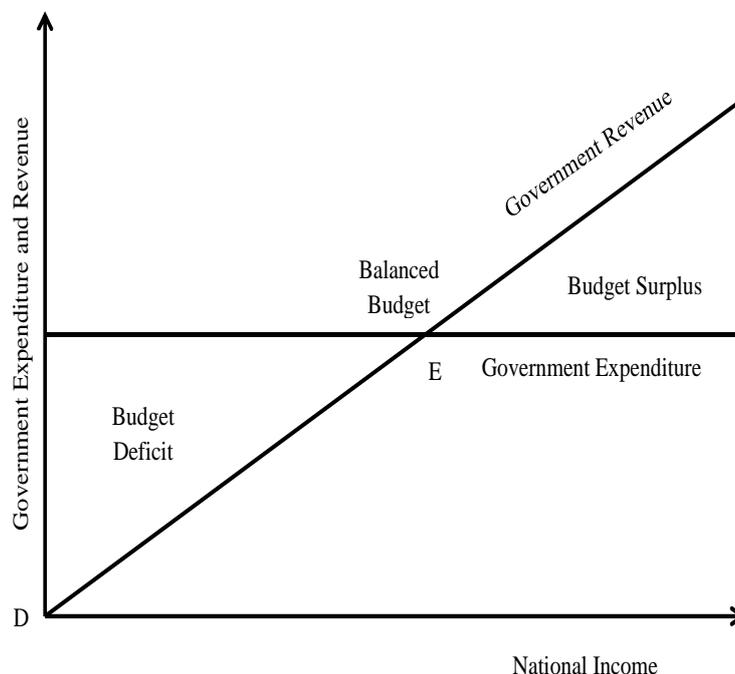
Source: Kalyan City Life Archive (2012)

At the Point E, budget is balanced. To the left of point E the government budget is in deficit and to the right of point E, the budget is in surplus.

Anwar & Chunli (2007) giving reasons for the above levels of performance affirmed that when revenues are over estimated and expenditures underestimated, sharp expenditure cuts must be made later when executing the budget. On the revenue side, overestimation can come not only from technical factors, such as bad appraisal of the impact of a change in tax policy or of increased tax expenditures, but often also from the desire of politicians or ministries to keep in the budget an excessive number of programs while downplaying the difficulties of financing them. Similarly, on the expenditure side while underestimation can come from unrealistic assessments of the cost of unfunded liabilities (for example, benefits granted outside the budget) or of permanent obligations, underestimation can also be a deliberate tactic to launch new programs, with the intention of requesting increased appropriation later, during budget execution.

Unfortunately, governments are commonly reluctant to abandon an expenditure program after it has been started, forgetting that one should never throw good money after bad. When combined with bureaucratic and political momentum as well as vested interests, this natural reluctance leads to continuing an expenditure program even when a broad consensus exist that it is ineffective and wasteful. No technical improvement can by itself resolve institutional and

political problems of this nature. It is that much more important, therefore, to put in place robust gate keeping mechanisms to prevent bad projects and programs from getting started in the first place. By the time they are in the budget pipeline, it is usually too late to stop them. An overoptimistic budget also leads to accumulation of government payment arrears, which create their own inefficiencies and destroy government credibility. Budget performance evaluation permits a smooth implementation of priority programs and prevents disruption of program management during budget execution. Political interference, corruption, administrative weakness and lack of needed information often lead to unrealistic budget which can never be executed well. Therefore, clear signals on the amount of expenditure compatible with financial constraints should be given to spending agencies at the start of the budget preparation process.

2.3.3 Usefulness of Public Sector Performance Evaluation Results

Consistent with Mackay (1998) developing national measurement capacities is a means for ensuring that measurement findings are available to assist countries in three areas. First, measurement findings can be an important input for government decision making and prioritization, particularly in the budget process. Second, measurement assists managers by revealing the performance of on-going activities at the project, program or sector levels—it is therefore a management tool which leads to learning and improvement in the future (i.e., results-based management). Similarly, measurement results can also be used to assess the performance of organizations and institutional reform processes. Third, measurement data contribute to accountability mechanisms, whereby managers and governments can be held accountable for the performance of their activities.

Public sector performance measurement results are equally inputs of public sector communications function which enables the effective flow of information and ideas within internal and external publics to facilitate participation, service delivery and informed decision-making and to build accountability and trust in government (New Zealand Government, 2010).

David (2007) also affirmed that good sets of performance measures have multiple uses including accountability/communication, support of planning/budgeting efforts, catalyst for improved operations, program evaluation, reallocation of resources, directing operations, contract monitoring and benchmarking.

2.4 National Debt and Budget Performance

National debt will arise where the actual expenditure exceeds actual revenue and it becomes necessary to source for means of financing the excessive expenditure. To meet the budgetary objections it is imperative to draw from savings set aside or to borrow from outside sources (Ndan 2009). Dalton in KCL (2012) confirming this, asserts that "If over a period of time expenditure exceeds revenue, the budget is said to be unbalanced". Deficit budget is one where the estimated government expenditure is more than expected revenue. Government estimated revenue is less than government's proposed expenditure. Such deficit amount is generally covered through public borrowings or withdrawing resources from the accumulated reserve surplus.

Thus, a deficit budget is a liability to the government as it creates a burden of debt or it reduces the stock of reserves of the government. Budget deficit and its attendant debt burden are giant evils that most government fights against. While to Sahaj (2001) and the National Bank of Slovakia, "reform of the management of public finances is concerned with ensuring the steady progress of the state in implementing various reform measures of the government directed at gradually lowering or eliminating over the long term the deficit in the public sector budgetary performance", Damian (2011) affirmed that if the interest payments on the national debt are not made, the US would be in default, potentially causing catastrophic economic consequences for the US and the wider world as well. Today's sovereign debt crisis highlights some of the consequences of poor financial management and weak financial reporting in the public sector (Ball, 2009).

Judging from the United States perspective, the federal government can pay for expenditures only if Congress has approved the expenditure. If the total expenditure exceeds the revenues collected there is a budget deficit, and the only way that the shortfall can be paid is for the government, through the Department of the Treasury, to borrow the shortfall amount by the issue of debt instruments. Under federal law, the amount that the government can borrow is limited by the debt ceiling, which can only be increased with a vote by Congress. In compliance with the provisions of the federal law, the Treasury lamented that "failing to increase the debt limit would . . . cause the government to default on its legal obligations – an unprecedented event in American history". These legal obligations include paying Social Security and Medicare benefits, military salaries, interest on the debt, and many other items. These legal and formal procedures are normally faulted in developing countries like Nigeria thereby leaving the country with high level of debt burden.

Anwar & Chunli (2007) equally posits that the summary indicator of a country's fiscal position used commonly is the overall balance on a cash basis, defined as the difference between actual collected revenues plus grants (cash or in kind) and actual expenditure payments. The cash deficit is by definition equal to the government borrowing requirements (from domestic or foreign sources) and is thus integrally linked to the money supply and inflation targets and prospects. The overall deficit is obviously a major policy target and is used for international comparisons as well. How the deficit is financed (debt implication) also requires attention: the same level of fiscal deficit can be manageable or not, depending on whether it is financed in cost-effective and non-inflationary ways.

2.5 Constraints of Performance Measurement of Public Sector

Some features of the public sector serve to make effective performance measurement harder in the public sector. CIMA identified the following features of the public sector as responsible in complicating performance measurement of the public sector.

• The lack of a predominant profit motive to simplify resource allocation. Private sector organisations can relatively easily determine where to invest effort and resource to maximise overall results. Although many public sector organisations have revenue generating or even profit making elements, their predominant objective is to deliver services to achieve certain

outcomes. Those services must be delivered to users who may not wish to receive them, or who may not value them.

• Politics, which affect almost everything from the very nature of the public sector to governance arrangements and the frequency and philosophy behind reform efforts.

• Complicated delivery chains and multiple stakeholders which make it more difficult to manage activities. Public sector bodies often use other bodies or stakeholders to help them deliver services. For example, funding for a service might be decided at national level and then devolved to local bodies, which might use third sector organisations to deliver services.

• Unclear cause and effect relationships – public sector objectives such as increasing literacy, or reducing street crime, are affected by many different issues cutting across different programmes and organisations. The effect of changing any single factor cannot be easily isolated.

• Delayed impacts – achievement or progress towards many public sector objectives, particularly those which are preventative, may not be observable for many years or even decades.

• Attitudes towards accountability and transparency. Many countries struggle with corruption, nepotism, poor governance or a lack of openness. Even policy makers in countries without these problems may resist scrutiny of popular or politically motivated, rather than evidence-based decisions.

Equally according to IPAC the barriers to effective performance measurement fall into several categories, which include: methodological barriers, financial barriers, government barriers and political and public service barriers.

2.6 Nigeria Country Profile

Nigeria, the study area covers an area of 923,768sq km (356,669sq mile). It is bounded by Cameroon to the east, Chad to the northeast, Niger to the north, Benin to the west, and Gulf of Guinea on the Atlantic Ocean to the south (Ofem, 2012). Going by the most recent national census held in 2006, Nigeria has a population of over 140 million inhabitants out of which about 48% live in urban centres. It is the most populated country in Africa and accounts for more than 25 percent of the population of sub-Saharan Africa. Nigeria is administratively divided into 36 states and the Federal Capital Territory. Nigeria practice democracy in federalism. The states are further divided into 774 local government areas. Between it and the republic of South Africa they account for more than 50 percent of sub-Saharan Africa GDP. Nigeria as a member of Organization of Petroleum Exporting countries produces an average of 2.3 million barrels of oil per day and it is reckoned to be the sixth largest oil producer in the world.

Table 2. Nigeria key macroeconomic indications (growth rates): The variance level

Variable/year	2006	2007	2008	2009	2010
Inflation					
Actual	8.55	6.56	15.06	13.93	11.80
Target	9.00	9.00	9.00	9.00	11.20
Variance	0.45	2.44	-6.06	-4.93	-0.6
Real GDP					
Actual	6.03	6.45	5.98	6.96	7.87
Target	7.00	10.00	7.50	5.00	6.10
Variance	-0.97	-3.55	-1.52	1.96	1.77
M_1					
Actual	32.18	37.63	56.07	2.41	11.05
Target	-	-	-	32.20	22.40
Variance	-	-	-	-29.79	-11.35

Source: Sheriffdeen (2012)

3. Methodology

The objective of this study is to investigate the relationship between budget performance and national debt as measures of public sector performance. The period of study spans from 1960 – 2010. The data collected are subjected to regression analysis labeling budget performance as the independent variable and national debt (including domestic and external debt) as the dependent variables. The Augmented Dickey-Fuller Tests equation was employed to perform unit root tests for stationary and cointegration tests. A comparative descriptive analysis of cross country ratio of debt to GDP is equally provided.

4. Data Presentation, Analysis and Interpretation

In analyzing the data three equations were formulated having budget performance as the independent variables in the three equations and domestic debt, external debt and total national debt as the dependent variables in these equations. Thus these three equations are named domestic debt (DD), external debt (EX) and total debt (TD) models.

4.1 Regression Analysis for Domestic Debt

The Regression equation is

Domestic Debt = 177280.9 – 4.0715 Surp/Deficit

Dependent Variable: DD
Method: Least Squares
Date: 07/19/13   Time: 16:45
Sample: 1961 2010
Included observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	177280.9	70778.52	2.504727	0.0157
BP	-4.071474	0.332018	-12.26282	0.0000
R-squared	0.758036	Mean dependent var		508840.8
Adjusted R-squared	0.752995	S.D. dependent var		930638.3
S.E. of regression	462523.3	Akaike info criterion		28.96596
Sum squared resid	1.03E+13	Schwarz criterion		29.04244
Log likelihood	-722.1490	Hannan-Quinn criter.		28.99508
F-statistic	150.3767	Durbin-Watson stat		0.706773
Prob(F-statistic)	0.000000			

The estimated coefficient b_1, the intercept in our domestic debt model is recorded as the coefficient on the variable C in this study. C is the term for constant in a regression model. Results show $b_1 = 177280.9$. The estimated value of the slope coefficient on the variable annual budget performance (X) is $b_2 = -4.0715$. The interpretation of b_2 is: for every N4.0715 budget deficit this study estimates that there is about a N100 increase in domestic debt, holding all other factors.
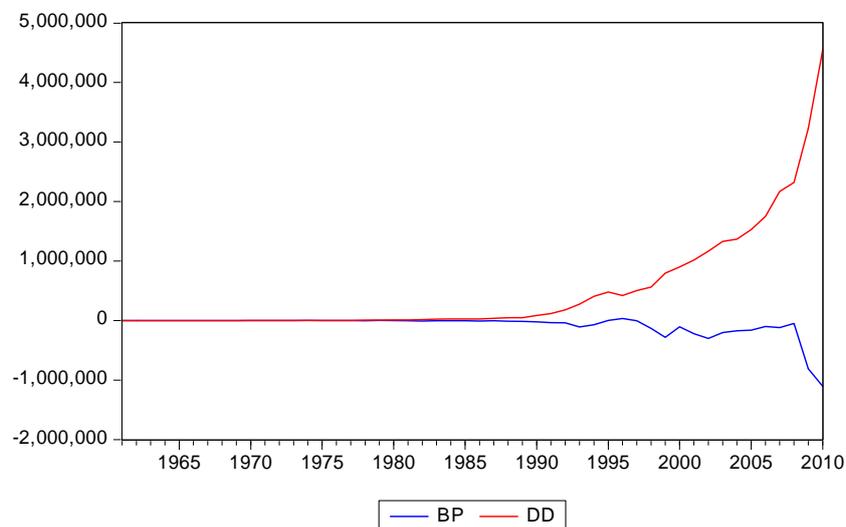

Figure 1. Domestic Debt Model Graph

4.2 Regression Analysis for External Debt

The Regression equation is

External Debt = 493244.5 – 2.0719 Surp/Deficit

Dependent Variable: ED
Method: Least Squares
Date: 07/19/13 Time: 16:46
Sample: 1961 2010
Included observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	493244.5	181195.1	2.722174	0.0090
BP	-2.071900	0.849975	-2.437599	0.0185

R-squared	0.110154	Mean dependent var		661969.3
Adjusted R-squared	0.091615	S.D. dependent var		1242349.
S.E. of regression	1184073.	Akaike info criterion		30.84600
Sum squared resid	6.73E+13	Schwarz criterion		30.92248
Log likelihood	-769.1499	Hannan-Quinn criter.		30.87512
F-statistic	5.941891	Durbin-Watson stat		0.245478
Prob(F-statistic)	0.018540			

Equally, results show b_1 = 493244.5. The estimated value of the slope coefficient on the variable annual budget performance (X) is b_2 = -2.0719. The interpretation of b_2 is: each time government expenditure exceeds revenues by N2.0719 (budget deficit of N-2.0719) this study estimates that there is a consequential effect of about N100 increase in external debt, holding all other factors.
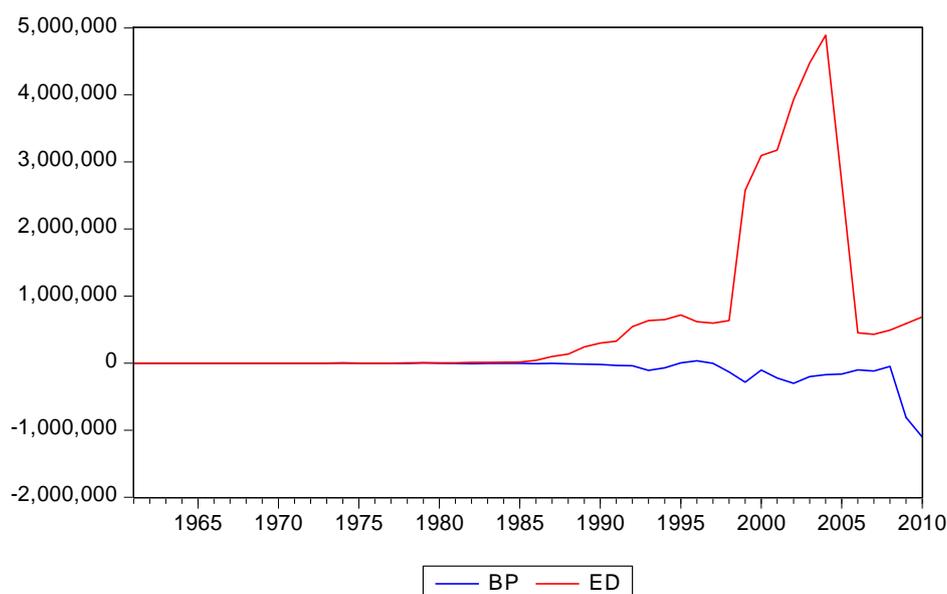
Figure 2. External Debt Model Graph

4.3 Regression Analysis for Total National Debt

The Regression equation is

Total National Debt = 669311 – 6.145 Surp/Deficit

Dependent Variable: TD
Method: Least Squares
Date: 07/19/13 Time: 16:46
Sample: 1961 2010
Included observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	669311.0	209085.5	3.201136	0.0024
BP	-6.145025	0.980808	-6.265270	0.0000

R-squared	0.449880	Mean dependent var	1169730.
Adjusted R-squared	0.438419	S.D. dependent var	1823264.
S.E. of regression	1366331.	Akaike info criterion	31.13233
Sum squared resid	8.96E+13	Schwarz criterion	31.20882
Log likelihood	-776.3084	Hannan-Quinn criter.	31.16146
F-statistic	39.25361	Durbin-Watson stat	0.324590
Prob(F-statistic)	0.000000		

Finally, analysis show b_1 = 669311. The estimated value of the slope coefficient on the variable annual budget performance (X) is b_2 = -6.145. The interpretation of b_2 is: for every budget deficit of N-6.145 this study estimates that there is every likely hood that total debt will increase to about N100, all things being equal.

Figure 3. Total Debt Model Graph

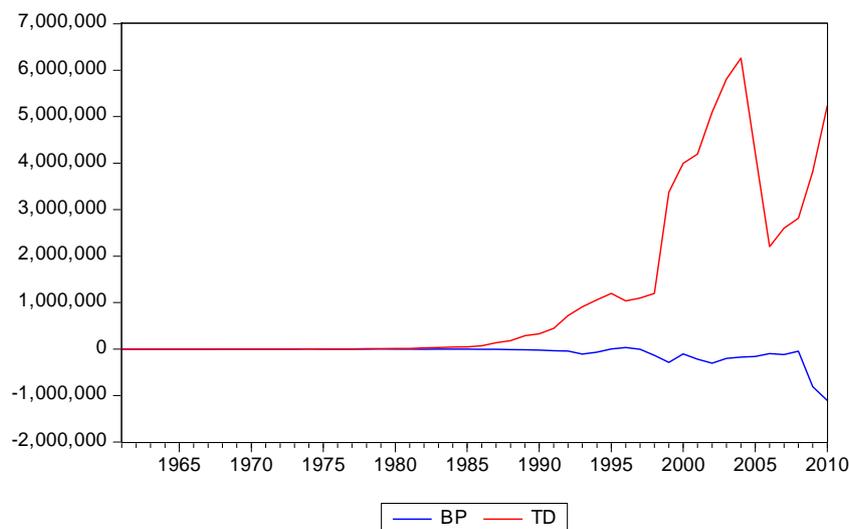In summary, results show that much easier and quicker for budget deficit to give rise to external debt than domestic and total debt. While a deficit of N2 will give rise to external debt of N100, budget deficit must get hit N4 and N6 in order to generate respectively domestic and total debt of N100. In all, the costs of adverse budget performance outweigh its benefits. N2 to N6 budget deficit resulting to debt of N100 is by all judgement not rational, outrageous and extremely costly. Therefore it is recommended that government operates within the provisions of the budget to avoid budget deficit and its attendant costs.

4.4 Descriptive Statistics

	BP	DD	ED	TD
Mean	-81434.85	508840.8	661969.3	1169730.
Median	-3633.300	28193.90	29376.50	57570.40
Maximum	32049.40	4551822.	4890270.	6260595.
Minimum	-1105440.	53.30000	49.80000	103.1000
Std. Dev.	199009.6	930638.3	1242349.	1823264.
Skewness	-3.840032	2.496145	2.193500	1.468938
Kurtosis	18.42139	9.629519	6.618014	3.802311
Jarque-Bera	618.3390	143.4864	67.36623	19.32253
Probability	0.000000	0.000000	0.000000	0.000064
Sum	-4071742.	25442040	33098467	58486507
Sum Sq. Dev.	1.94E+12	4.24E+13	7.56E+13	1.63E+14
Observations	50	50	50	50

The surface observation of data collected for this study evidenced that the nation's debt keep increasing as the nation's actual expenditure outweighs revenue (deficit) though not proportionately suggesting that there is a significant negative relationship between budget performance in the form of surplus, deficit or balance budget and domestic, external and national debt. The above present the descriptive statistics for all the variables including budget performance (BP), domestic (DD), eternal (ED) and total (TD) debt. The descriptive statistics for all the dependent variables mean median, maximum and minimum exhibit positive results. On the other hand the mean and median for budget performance is negative implying that the performance of the Nigeria budget has consistently being in deficit particularly since 1981 till date resulting into geometric increase in total national debt and its attendant burden and that a negative relationship exist between budget performance and domestic, external and total debt.

4.5 Cross Country Debt to GDP as Economic Progress Indicator (%)

For more than a half century, the most widely accepted measure of a country's economic progress has been changes in its Gross Domestic Product (GDP). The GDP has maintained a firm position as a dominant economic indicator. Indeed, most economists in business and government, teachers of economics at various levels of education, and journalists, policy

makers and politicians (regardless of their political preferences) continue to give much importance to GDP and calling for unconditional GDP growth (Jeroen, 2009).

GDP is an estimate of market throughput, adding together the value of all final goods and services that are produced and traded for money within a given period of time. It is typically measured by adding together a nation's personal consumption expenditures (payments by households for goods and services), government expenditures (public spending on the provision of goods and services, infrastructure, debt payments, etc.), net exports (the value of a country's exports minus the value of imports), and net capital formation (the increase in value of a nation's total stock of monetized capital goods) (Costanza, Hart, Posner & Talberth, 2009). In summary, Jeroen (2009) affirmed that gross domestic product (GDP) is the monetary, market value of all final goods and services produced in a country over a period of a year.

Due to the fact that GDP is a fundamental universal economic indicator and the real GDP per capita (corrected for inflation) is generally used as the core indicator in judging the position of the economy of a country over time or relative to that of other countries (Jeroen, 2009), this study establishes a relationship in the form of the ratio between total debt and GDP for some countries. This ratio measures the portion of a nation's GDP attributable to debt or how much of a nation's GDP that can provide coverage for her total debt. The result of the analysis of data for period 2000 - 2010 is presented below:

	AUSTRALIA	AUSTRIA	BELGIUM	CANADA	CHILE	CZECH_REP_
Mean	7.745455	61.42727	93.74545	33.67273	9.563636	23.06364
Median	7.500000	60.90000	94.90000	35.70000	9.200000	23.20000
Maximum	11.40000	65.80000	99.50000	40.90000	15.70000	36.60000
Minimum	4.900000	57.80000	85.30000	25.20000	4.100000	13.20000
Std. Dev.	2.234441	2.299605	4.685160	5.181716	4.232794	7.292636
Skewness	0.369526	0.570895	-0.449502	-0.195987	0.162414	0.392131
Kurtosis	1.899267	2.784052	2.058818	1.767808	1.498793	2.285764
Jarque-Bera	0.805663	0.618895	0.776431	0.766306	1.081270	0.515717
Probability	0.668425	0.733852	0.678266	0.681708	0.582378	0.772705
Sum	85.20000	675.7000	1031.200	370.4000	105.2000	253.7000
Sum Sq. Dev.	49.92727	52.88182	219.5073	268.5018	179.1655	531.8255
Observations	11	11	11	11	11	11

	DENMARK	ESTONIA	FINLAND	FRANCE	GERMANY	GREECE
Mean	42.23636	2.663636	39.34545	53.60000	40.02727	113.8727
Median	39.60000	2.900000	41.30000	52.10000	39.60000	109.7000
Maximum	54.80000	3.600000	48.00000	67.40000	44.40000	147.8000
Minimum	27.80000	1.300000	29.50000	47.40000	36.50000	105.7000
Std. Dev.	9.220767	0.797838	5.618071	5.804653	2.535780	12.64002
Skewness	-0.098987	-0.382685	-0.395605	1.403094	0.539173	2.054162
Kurtosis	1.629325	1.763231	2.280921	4.076940	2.400279	5.889990
Jarque-Bera	0.879058	0.969553	0.523916	4.140811	0.697811	11.56392
Probability	0.644340	0.615835	0.769543	0.126135	0.705460	0.003083
Sum	464.6000	29.30000	432.8000	589.6000	440.3000	1252.600
Sum Sq. Dev.	850.2255	6.365455	315.6273	336.9400	64.30182	1597.702
Observations	11	11	11	11	11	11

	HUNGARY	ICELAND	IRELAND	ISREAL	ITALY	KOREA
Mean	60.54545	40.92727	31.38182	85.39091	100.3182	25.18182
Median	58.10000	33.80000	27.90000	83.40000	98.10000	27.60000
Maximum	73.90000	87.50000	60.70000	97.80000	109.0000	32.60000
Minimum	50.40000	19.40000	19.80000	74.70000	95.60000	16.70000
Std. Dev.	7.908143	22.70036	12.32167	8.973233	4.535597	6.143748
Skewness	0.576880	1.291691	1.419763	0.148276	0.794156	-0.279550
Kurtosis	2.045054	3.221162	4.003810	1.464425	2.250193	1.456844
Jarque-Bera	1.028081	3.081271	4.157334	1.121052	1.413934	1.234716
Probability	0.598074	0.214245	0.125097	0.570909	0.493138	0.539368
Sum	666.0000	450.2000	345.2000	939.3000	1103.500	277.0000
Sum Sq. Dev.	625.3873	5153.062	1518.236	805.1891	205.7164	377.4564
Observations	11	11	11	11	11	11

	LUXEMBOUR	MEXICO	NETHERLAND	NEWZEALAND	NIGERIA	NORWAY
Mean	4.100000	22.56364	44.10000	25.76364	42.85455	18.53636
Median	2.700000	21.20000	43.00000	26.40000	29.00000	18.40000
Maximum	12.60000	28.10000	51.80000	32.10000	88.70000	26.40000
Minimum	0.800000	20.30000	37.60000	20.30000	11.60000	11.70000
Std. Dev.	3.875306	2.835233	4.582794	4.269256	32.00376	4.838858

Skewness	1.184075	1.169848	0.450761	0.057874	0.335441	0.276811
Kurtosis	3.017364	2.770231	2.061520	1.514452	1.399990	2.233659
Jarque-Bera	2.570534	2.533194	0.776182	1.017615	1.379636	0.409647
Probability	0.276577	0.281789	0.678351	0.601212	0.501667	0.814791
Sum	45.10000	248.2000	485.1000	283.4000	471.4000	203.9000
Sum Sq. Dev.	150.1800	80.38545	210.0200	182.2655	10242.41	234.1455
Observations	11	11	11	11	11	11

	POLAND	PORTUGAL	SLOVAK_REP_	SPAIN	SWEEDEN	SWITZERLAND
Mean	43.20000	65.29091	32.53636	40.99091	43.53636	24.98182
Median	44.70000	66.20000	33.70000	40.70000	46.20000	25.20000
Maximum	49.70000	88.00000	39.10000	51.70000	56.90000	28.30000
Minimum	35.80000	52.10000	23.90000	30.00000	33.80000	20.20000
Std. Dev.	4.198571	10.76777	4.980617	7.194644	6.991033	3.038361
Skewness	-0.550736	0.789402	-0.383416	-0.025881	0.221513	-0.299018
Kurtosis	2.551968	2.889988	1.939694	1.761064	2.280705	1.718225
Jarque-Bera	0.648072	1.147999	0.784795	0.704753	0.327093	0.916939
Probability	0.723224	0.563268	0.675435	0.703016	0.849127	0.632251
Sum	475.2000	718.2000	357.9000	450.9000	478.9000	274.8000
Sum Sq. Dev.	176.2800	1159.449	248.0655	517.6291	488.7455	92.31636
Observations	11	11	11	11	11	11

	TURKEY	U_K	USA
Mean	51.43636	50.00909	39.39091
Median	46.40000	42.70000	36.00000
Maximum	74.10000	85.50000	61.30000
Minimum	38.20000	38.70000	32.40000
Std. Dev.	12.45546	16.42592	9.314124
Skewness	0.662118	1.316526	1.607802
Kurtosis	2.066522	3.139504	4.047307
Jarque-Bera	1.203116	3.186530	5.241943
Probability	0.547957	0.203261	0.072732
Sum	565.8000	550.1000	433.3000

Sum Sq. Dev.	1551.385	2698.109	867.5291
Observations	11	11	11

These data can equally be employed to assess government risk which entails identifying and evaluating events (i.e., possible risks and opportunities) that could affect the achievement of government overall socio-economic objectives, positively or negatively. When a government carries high debt burden for example Greece, such situation is highly likely to intersect with a government's objectives—or can be predicted to do so—it become a risk. The above assertion is consistent with PricewaterhouseCoopers (2008) that risk as "the possibility that an event will occur and adversely affect the achievement of objectives. Therefore following PricewaterhouseCoopers (2008) risk map this study classified these countries into low, medium and highly debt burdened countries.

Countries with mean of debt to GDP ratio of less than 10% are classified as low debt burdened countries, 10-50% medium debt burdened countries and greater than 50% high debt burdened countries. By this classification, Australia, Chile, Estonia and Luxembourg are low debt burdened countries. Canada, Czech Republic, Denmark, Finland, Germany, Iceland, Ireland, Korea, Mexico, Netherlands, New Zealand, Nigeria, Norway, Poland, Slovak Republic, Spain, Sweden, Switzerland and USA are within the category of medium debt burdened countries. Finally, Austria, Belgium, France, Greece, Hungary, Israel, Italy, Portugal, Turkey and U.K are highly debt burdened. Estonia has the lowest mean of debt to GDP ratio of 2.66% and Greece exhibit the highest ratio of 113.87%. This is indicative that averagely, the GDP of Greece is not adequate to provide coverage for her debt burden. The negative but catastrophic burden of debt is evidenced by the current economic crisis Greece as the highest debt burdened country is experiencing.

Though Nigeria by this classification falls within the class of medium debt burdened nation with a mean of debt to GDP of 42.85% and median of 29% there is every need to be courteous and on the watch out as her path of budget performance in terms of deficit that leads to the three forms of debt burden from the above analysis is quite slippery.
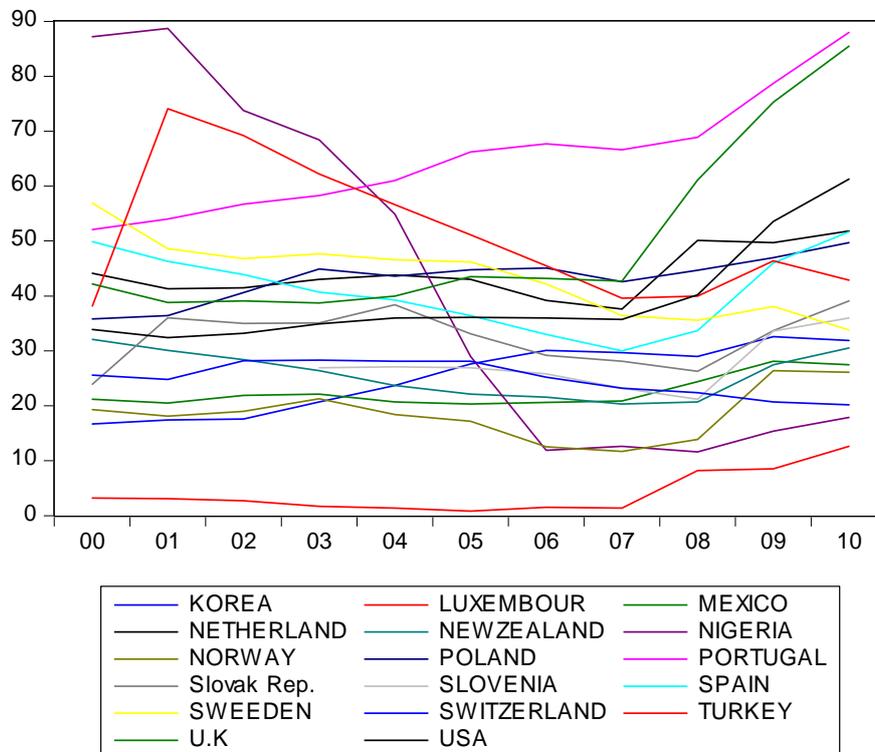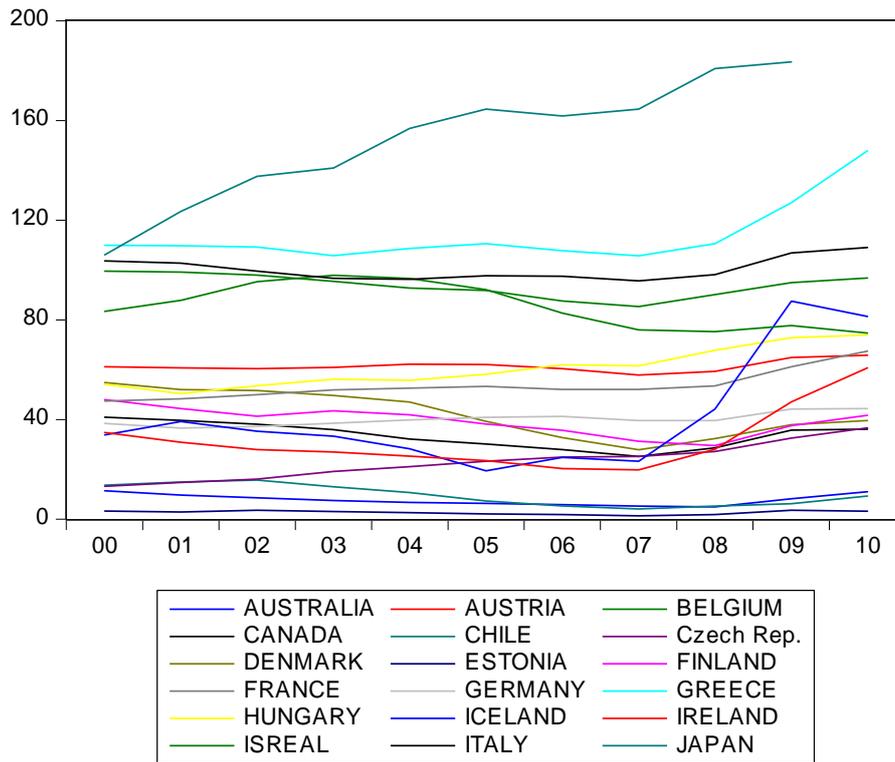
Figure 4 and 5. Cross-Country Debt to GDP(%) Graph

4.6 Unit Root Tests for Stationary

This study test whether the time series is stationary or nonstationary in order to avoid the danger of obtaining apparently significant regression results from unrelated data when nonstationary series are used in regression analysis. Such regressions are said to be spurious. Thus this study perform unit root tests for stationary for all the variables (BP, DD, ED and TD) using the Augmented Dickey-Fuller Tests equation. Since calculated Dickey-Fuller tests statistics for budget performance (0.338072), domestic debt (3.672291), external debt (-2.526719) and total debt (-0.883949) are all greater than 5% critical value of (-2.923780), this study did not reject the null of nonstationary. In other words, the variables budget performance (BP), domestic debt (DD), external debt (ED) and total debt (TD) are nonstationary series.

4.7 Cointegration Tests

To tests whether the nonstationary variables BP, DD, ED and TD are cointegrated, this study equally examined separately the properties of the three regression residuals (DD = 177280.9 – 4.0715 BP, ED = 493244.5 – 2.0719 BP and TD = 669311 – 6.145 BP). Since calculated Dickey-Fuller tests statistics for DD = 177280.9 – 4.0715 BP (-2.938060), ED = 493244.5 – 2.0719 BP (-2.327642) and TD = 669311 – 6.145 BP (-2.047329) are all less than 5% critical value for regression-based cointegration tests of (3.37), this study reject the null of no integration. In other words, the variables in the three regressions are cointegrated.

4.8 Model Explanatory Powers

Goodness of fit (i.e., r^2) provides an indication of the variation in the dependent variable being explained by the independent variable(s) in a regression model (Jordan, Waldron & Clark, 2007). It is often used as a measure of the comparative predictive and explanatory abilities among models (e.g., see Dechow, Hutton, Kim & Sloan, 2011; Jordan, Waldron & Clark, 2007; Greenburg, Johnson & Ramesh, 1986; Murdoch & Krause, 1989; McBeth, 1993). Generally, the higher the r^2, the greater is the predictive and explanatory power of a model. Using r^2 as a gauge of explanatory power, the equation investigating the relationship between budget performance and domestic debt possesses superior explanatory ability with r^2 of 76% over both equations investigating the relationship between budget performance and external and total national debt respectively possessing r^2s of 11% and 45%.

Following Jordan, Waldron & Clark (2007), Lorek & Willinger (1996), Cheung & Krishnan (1997) and Neter & Wasserman (1974) models with higher r^2s may not necessarily be the best predictors. This is because even a model with a high r^2 may have a mean square error that is too large for inferences to be drawn when accurate predictions are needed (Neter & Wasserman, 1974, p. 229). Jordan, Waldron & Clark (2007) and Akresh & Wallace (1982) state that predictive ability is best examined not only by evaluating a model's r but also by analyzing the size of the residuals or error terms resulting from the model's predictions.

4.9 Implications for Past and Appeal to Present Nigeria Administrations

This paper discovers that between 1960 and 1980, the Nigerian government experience 13 years of surplus budget and 7 years of deficit budget. The frequency of budget deficit was lower compared to its corresponding surplus budget. From 1981 till 2010, except in 1995, Nigeria budget has been in deficit. This result is consistent with Sheriffdeen (2012) and Abdullahi & Angus (2012) who respectively affirmed that preparation and presentation of the budget by the president of Nigeria has become more of a fanfare in recent time than a serious business it was up to the mid-1980s and that many a time government budgets in developing countries like Nigeria is nothing but addition of figures only to be read to the ears of the public and departure from budget items amount to disastrous development, conflicts, scandals and corruption of administration.

This study equally provide evidence of the failure of past and present Nigerian administrations' deliberate refusal to execute and implement government programs and activities within the ambit of the provisions of the budget. This position is equally cemented in the light of the assertion of Sheriffdeen (2012) that though virtually all countries around the world engage in deficit budgeting, the Nigerian case is a mystery and difficult to explain even by experts. This is because the Nigerian budget is prepared based on U.S $ 75 per barrel of oil and x number of barrel per day. At the end of the year, the variables turn out to be better than expectations, that is, the oil output remain greater than the estimates and the price of crude oil would average about $100 per barrel with no corresponding growth in the country's reserves, yet we claim to have budget deficit.

To this end, our cry is Nigeria government "don't let our future dry up".

5. Conclusions and Recommendations

Consistent with IPAC, public sector performance measurement is imperative as it can bring substantial benefits to governments in the form of greater efficiency, effectiveness and accountability, but there are substantial obstacles to its successful implementation. Because the budget is a financial document that reflects program planning and service priorities in financial terms and also, ideally, in terms of performance expectations and can be used as a benchmark, as a control system, that allows managers to compare actual performance with estimated or desired performance, investigating the relationship between its performance and national debt is appropriate and adequate in measuring the performance of public sector. There exist a negative relationship between budget performance and debt burden. Meaning that the more the budget goes into deficit the more the debt burden of a nation and vice versa. National debt and its attendant costs are liabilities to the government which are capable of putting a nation in a state of perpetual economic slavery and hopelessness for the generation unborn.

From the above findings, the following recommendations are made. First, in agreement with Abdullahi & Angus (2012), it is recommended that the budget document which is a plan of activities should be followed item after item in its implementation and execution. In addition, following Ball (2009) Nigeria government should as a matter of transparent accountability

prepare budget on accrual basis and put in place structures and mechanisms that will ensure the enactment of federal law making provisions for the amount that the government can borrow and the debt ceiling, which can only be increased with a vote by National Assembly.

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