FISCAL SUSTAINABILITY: Theories, Practice and Policies

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ABSTRACT

We examine the concept of fiscal sustainability as well as the various approaches within the context of fiscal policy. It is evident that no matter the various approaches to fiscal/debt sustainability, an economy must generate enough surplus to have a robust fiscal policy. The stylized facts show that the Nigerian economy is characterized by persistent fiscal deficits over the years. Managers of the economy must consider the intergenerational effect of fiscal sustainability, notwithstanding the economy's ability to service its debt.

JEL classification: H3, H6, H72

1. Introduction

Fiscal policy remains a major aspect of managing any modern economy. It involves the introduction of government in a rigorous manner into different economic models whether it is partial or general equilibrium. The role of government expenditure and the implications for its budget constraint coupled with the financing of its expenditure through taxes and debt reflects fiscal policy.

The fundamental role of government is to provide public goods and services as well as the transfer of income from one group to another, improve the welfare of the poor, pay pensioners, among others. Even the provision of an enabling environment for the private sector to thrive must be paid for. This can be achieved through taxation, borrowing (issuing debt to the public) or by printing money (that is, borrowing from the Central Bank). In practice, all the financing methods are different forms of taxation. Borrowing is tantamount to

deferred taxation while debt must be repaid in the future, together with interest payments. The printing of money generally results in inflation which imposes a tax due to the loss of real purchasing power of nominal money holdings as prices rise.

In recent times and in most countries, government expenditure forms a substantial proportion of GDP. This becomes evident during attempts to exit recessions and/or deal with external shocks like the COVID-19 health pandemic. In developing economies such as countries in sub-Saharan Africa with huge infrastructural deficits, governments spend largely on investing in soft and hard capital projects like education, health, roads, railways, dams, etc.

On the other hand, government revenues are mainly from taxes on incomes and expenditures as well as corporate taxes. In sub-Saharan African economies, revenues come mainly from taxing extractive minerals and commodities. Given the associated vulnerabilities with these sources of revenue, reliance on debt and donors becomes inevitable.

Therefore, the issue of fiscal sustainability falls within fiscal policy because elements such as expenditures, revenues, debts and deficits should be examined within the budget constraint of government. However, it should be noted upfront that having a balanced budget is not synonymous with fiscal sustainability.

Furthermore, in practice, a country can define its notion or concept of sustainability and determine whether it has been achieved or not. In the pursuit of fiscal policy, governments establish institutions, rules and policies to guide their fiscal sustainability trajectories. For example, in Nigeria there is the Revenue, Mobilization and Allocation Commission, the Fiscal Responsibility Commission, Debt Management Office and the Fiscal Responsibility Act (the Act sets a tolerable deficit/GDP ratio for the country).

This paper examines fiscal sustainability theories drawing from the practice and experience in Nigeria. The paper is organized as follows: section 2 discusses theoretical underpinnings while section 3 examines the political economy of deficits. The experience of Nigeria follows in section 4 with some ideas on how best to conduct fiscal policy in section 5. Section 6 concludes the paper.

2. A Peep into Theory: Conceptual Framework

Fiscal sustainability can be defined as the study of the impact of fiscal policies on public debt to ensure its sustainability. Indicators of fiscal sustainability try to find answers to the questions: "can the current course of fiscal policy be sustained without exploding debt? Or will the government have to sharply increase taxes, decrease spending, have recourse to monetization or repudiation?" It is because of persistent deficits that debts play a major element in fiscal policy. Thus, it is sometimes referred to as *debt sustainability* (Omoruyi, 2016; Nigel and Hemming, 2000).

For the International Monetary Fund (IMF), "debt is sustainable if it satisfies the solvency condition without a major correction, given the costs of financing" (IMF, 2003, p.5). Debt solvency is satisfied when future primary surpluses will be large enough to pay back the debt principal and interest. The matter of 'major correction' is in respect of the primary balance. It includes liquidity constraints, while 'cost of financing' refers to the fact that costs are unpredictable because they could change over time. It follows that for the IMF, debt sustainability is a forward-looking concept.

Another interesting definition is that of Arrow and Boskin (2004)**,** which focuses on external or public debt sustainability. Public debt is sustainable if the net worth of an economy's external debt or public debt for government is weakly increasing. Net worth implies that the present discounted value of net revenue less current debt less future debt is on a not decreasing trend. This definition does not involve the concept of solvency hence it is less strict than the IMF's definition. However, both concepts cannot be implemented because they require knowledge of future evolution of the debt.

Generally, debt is sustainable if the government is both solvent and liquid and fully services the debt at any time. The condition for sustainability is solvency plus illiquidity. Illiquidity occurs when the debt cannot be serviced at a particular point in time.

Let us attempt to formalize the above discussion.

2.1 Government budget constraint

The matter of fiscal sustainability falls within the purview of fiscal policy. Invariably, it is important to know what the government can and cannot do.

Therefore, we need to x-ray the government's budget constraint. A household's budget constraint is that the present value of its consumption must be less than or equal to its initial wealth plus the present value of its labour income.

The Government's budget constraint is similar: the present rate of government's buying of goods and services must be less than or equal to its initial wealth plus the present value of its tax receipts (net of transfer payments). Stated formally:

$$\int_{t=0}^{\infty} e^{-R(t)} G(t)dt \leq -D(0) + \int_{t=0}^{\infty} e^{-R(t)} T(t)dt \qquad (1)$$

where:

$G(t)$ = Real Government's buying of goods and services;

$T(t)$ = Taxes at time t;

$D(0)$ = Government's initial real debt outstanding

Let $R(t)$ denote $\int_{r=0}^{r} r(r)dr$, where $r(r)$ is the real interest rate at time r. Therefore, the value of a unit of output at time t discounted back to time 0 is $e^{-R(t)}$. Note that because $D(0)$ represents debt instead of wealth, it enters the budget constraint as negative.

The government's budget constraint does not prevent it from staying permanently in debt or even increasing the amount of its debt. The restriction the budget constraint places on the government is that the limit of the present value of its debt cannot be positive. In other words, equation (1) is equivalent to:

$$\lim_{s\to\infty} e^{-R(s)} D(s) \leq 0 \qquad (2)$$

If the real interest rate is always positive, then a positive but constant value of D, implying that government never pays off its debt, satisfies the budget constraint. In the same manner, a policy where D is always growing satisfies the budget constraint if the growth rate of D is less than the real interest rate.

A simple definition of the budget deficit is that it is the rate of change of the stock of debt. The rate of change in the stock of real debt equals the

difference between government spending and revenues plus the real interest on its debt. That is:

$$\dot{D}(t) = [G(t) - T(t)] + r(t)D(t) \quad (3)$$

where *r(t)* is the real interest rate at time *t*.

[G(t)-T(t)] in equation (3) is known as the **primary deficit.** Considering the primary rather than the total deficit is often a better way of gauging how fiscal policy at a given time is contributing to the government's budget constraint. Hence, government budget constraint, equation (1) can be rewritten as:

$$\int_{t=0}^{\infty} e^{-R(t)}[T(t) - G(t)]dt \geq D(0) \quad (4)$$

From equation (4), the budget constraint implies that government must run primary surpluses large enough in present value to offset its initial debt.

2.2 Fiscal/Debt Sustainability Indicators

Sustainability can be assessed through the indicators debt stock or debt service, relative to various measures of repayment capacity such as GDP, exports and government revenue. Each of the indicators has its merits and limitations but a combination may be useful. Some of these include:

- **HIPC Debt Indicator Approach:** This has two variants viz, one based on borrower's perspective and the other on lender's perspective. The borrower's perspective considers debt service to GDP or exports, among other economic variables. From the lender's point of view, external debt is considered sustainable if commercial lenders will lend to the debtor country.
- **Fiscal-cum-debt Approach:** This considers the way the budget deficit is financed. "It starts from the simple premise that high fiscal deficits eventually lead to unsustainable level of debt". Thus, sustainable debt requires a fiscal policy that results in a stable

debt/GDP ratio (Fisher & Easterly, 1990). This approach also takes into account growth rate of GDP in real terms.

- **Commonwealth Secretariat Approach:** The focus here is on domestic debt. This approach argues that sustainability of domestic debt depends on the primary deficit, the real interest rate and the growth of the economy. This method also has some rules of thumb for fiscal sustainability. They include: (i) fiscal deficit should not exceed 3 percent of GDP; (ii) public debt service should not exceed 15 percent of government revenue; and (iii) public domestic debt should not be higher than 200 percent of domestically-generated government revenue.
- **IMF Standardized Approach to Debt Sustainability:** The focus here is on the external debt component of public debt. This approach involves some steps:
  1. A 5-year central forecast, or baseline of the variables affecting the evolution of the external debt, that is, the primary account, GDP, interest and exchange rates and inflation.
  2. The evolution of the debt as a share of GDP over the next five years based on accounting identity.

     $$b_t - b_{t-1} = (r-g)b_{t-1} \qquad \text{(primary balance)}$$

     where: b = debt/GDP, r = interest rate, g = growth rate of GDP.
  3. Several stress tests which examine the effect of adverse shocks affecting the forecasting variables in Step 1; various shocks with interest rate, real GDP and the primary balance are undertaken.
  4. The debt sustainability concludes with a judgement on whether the debt levels derived from the stress tests are too high for the debt to be sustainable.

3. Political Economy Theories of Budget Deficits

What are the possible sources of deficit bias in fiscal policy? The question of fiscal/debt sustainability arises due to persistent fiscal deficits. However, under the new political economy approach, economists are aware of the

importance of the political process, that is, politics in generating fiscal deficits. Some of the issues arise from:

- Behaviour of political candidates and voters. During election campaigns, candidates normally promise programmes and projects which often would generate the need for expenditures over the expected revenues. More often, the candidates base their policy documents and or manifestoes on the demands of the voters.
- Importance of political forces for traditional economic issues. It usually happens that known groups which are politically powerful make demands within the conventional economic prism which have to be accommodated.
- Incomplete knowledge is a source of deficit bias. If individuals and politicians do not recognize the extent of the crisis associated with deficits, there will be a tendency towards excessive deficits.
- Strategic interactions may cause the political process to produce outcomes that are known to be inefficient – an elected leader may accumulate an inefficient amount of debt to restrain his or her successor's spending.
- Disagreement over how to divide the burden of reducing the deficit can cause delay in fiscal reform as each group tries to get others to bear a disproportionate share.

3.1 Potential sources of deficit bias

- Strategic Debt Accumulation. "Current policymakers realize that future policy may be determined by individuals whose views they disagree with". This may result in current policymakers wanting to restrain future policymakers' spending. If high levels of government debt reduce government spending, this provides current policymakers with a reason to accumulate debt.
- Delayed Stabilization. The basic idea: "is that when no single individual or interest group controls policy at a given time, interactions among policymakers can produce inefficient deficits". Specifically, inefficient deficits can persist because each policymaker or interest group delays

agreeing to fiscal reform in the hope that others will bear a larger portion of the burden.

- Weak Governments

$$D_{it} = \alpha + \beta WEAK_{it} + C'X_{it} + \mu_{it}$$

where:

D_{it} is the budget deficit in country *i* in year *t* as a share of GDP,

$WEAK_{it}$ is the political variable

X_{it} is a vector of other variables

The resulting estimate of β is 0.4, with a standard error of 0.14. That is, the point estimate suggests that a change in political variable from 0 to 3 is associated with an increase in the deficit-to-GDP ratio of 1.2 percent points which is substantial (Romer, 2012).

3.2 What determines the deficit?

Government needs to raise enough revenue to meet its obligations and taxation forms the bulk of public sector revenues in any economy. To achieve the desired revenue, it is essential to avoid distortions arising from taxation. In public finance, governments strive to ensure a tax-smoothing system.

Tax-Smoothing – The government wants to minimize the present value of distortions from raising revenue subject to the constraint that the present value of its revenues not be less than a certain level. Because there are increasing marginal distortion costs of raising revenue, the government chooses a smooth path of taxes.

- Tax-smoothing under certainty: Taxes (T) as a share of output (Y) must be constant. Because the marginal distortion cost per unit of revenue raised is increased in the tax rate, a smooth tax rate minimizes distortion costs.

$$\frac{T_i}{Y_t} = \frac{T_{t+1}}{Y_{t+1}}$$

- Tax-smoothing under uncertainty:

$$\frac{T_t}{Y_t} = E_t \frac{T_{t+1}}{Y_{t+1}}$$

There cannot be predictable changes in the tax rate. That is, the tax rate follows a random walk (E = expectations)

- Wars: During wars and conflicts countries increase their expenditure in order to persecute the war.
- Recessions: More often than not, fiscal policies via expenditure usually bail an economy out of a recession; even structural policies involve expenditure. Government expenditure, especially as regards social programmes as well as recurrent expenditure, to increase aggregate demand occurs during recessions. The unintended consequences would involve large deficits to be supported by either borrowing and/or resort to the central bank.
- Unexpected internal and external shocks such as the recent COVID-19 health pandemic.

4. The Nigerian Situation: Is Nigeria's Fiscal Profile Sustainable?

Nigeria's economy has been characterized by persistent deficits over the last 40 years. Table 1a and Figure 1 show persistent deficits from 2007-2021. Hence, government had to borrow externally and domestically to fill the gap (Table 1b). The implication is that domestic resource mobilization is not sufficient to meet the deficits (Ekpo, 2022, p. 106 – 107). The conventional fiscal-debt sustainability indicators such as debt/GDP, debt servicing/GDP show that the economy is within the threshold of borrowing (Ekpo, 2012).

However, when we examine the debt/revenue (external or domestic) indicator, there is a major challenge. Most of the revenue is derived from the export of crude oil, royalties from oil as well as company income tax. An insignificant amount of taxation is derived from wages, that is, personal income tax. Revenue is required to service and/or pay the debt yet the bulk of expected revenue is exogenous.

Both the price and output of crude petroleum are determined exogenously. But it is dangerous to finance development from an exogenous source of revenue. In the yearly budget in recent years, one-third of the revenue was earmarked for debt servicing. It is expected that the debt is for financing capital/infrastructural projects because of the long-term positive multiplier effects on the economy.

As long as government is able to service its debt as at when due and has no liquidity problem then the debt situation is weakly sustainable. Fiscal-cum debt sustainability is forward looking in theory but in practice, managers of the economy must ensure that the current debt situation does not overburden the future generation. Hence, in the conversation as to whether to borrow more or not and for what, intergenerational welfare must be considered. It is often difficult for any economy especially a capitalist one (which is a credit economy) to generate enough revenue to pay off even current debts. It is always a matter left for future generations.

Nonetheless, managers of the economy must be conscious of the fact that sustained fiscal deficits may pose a challenge to debt sustainability even in the long-run. It is, therefore, crucial to borrow wisely and without tears. In other words, being able to service debt should not be construed as sustainability.

Table 1a & 1b summarize the domestic and external debts of the federal government for the period 2007 – 2021. The data reveals sharp increases in both domestic and external debts during the period, with accelerated increase from 2016–2021 capturing the two recessions and the COVID-19 health pandemic (Musa, 2021; Omotor et al., 2020).

Table 1a: Nigeria: Fiscal Profile of the Federal Government, 2007-2021

Year	Revenue (₦' Billion)	Expenditure (₦' Billion)	Deficit (₦' Billion)	Deficit/GDP (%)
2007	2,333.7	2,450.9	-117.2	-0.3
2008	3,193.4	3,240.8	-47.4	-0.1
2009	2,643.0	3,453.0	-810.0	-1.9
2010	3,089.2	4,194.6	-1,105.4	-2.0
2011	3,553.5	4,712.1	-1,158.5	-1.8

Year	Revenue (₦' Billion)	Expenditure (₦' Billion)	Deficit (₦' Billion)	Deficit/GDP (%)
2012	3,629.6	4,605.3	-975.7	-1.3
2013	4,031.8	5,185.3	-1,153.5	-1.4
2014	3,751.7	4,587.4	-835.7	-0.9
2015	3,431.0	4,988.9	-1,557.8	-1.6
2016	3,184.7	5,858.6	-2,673.8	-2.6
2017	2,847.3	6,456.7	-3,609.4	-3.1
2018	4,185.6	7,813.7	-3,628.1	-2.8
2019	4,894.0	9,714.6	-4,820.6	-3.3
2020	3,983.1	10,231.7	-6,248.6	-4.0
2021	5,045.4	12,164.1	-7,118.7	-4.1

Source: CBN Statistical Bulletin. Various Issues, Abuja.

Table 1b: Federal Government: Domestic and External Debt, 2007-2021

Year	Domestic Debt (₦' Billion)	External Debt (US $ million)
2007	2,169.64	2,112.67
2008	2,320.31	2,059.86
2009	3,228.03	2,125.58
2010	4,551.82	2,578.06
2011	5,622.84	3,501.23
2012	6,537.54	4,142.90
2013	7,118.98	6,005.80
2014	7,904.03	6,445.63
2015	8,837.00	7,348.52
2016	11,058.20	7,838.66
2017	12,589.49	14,796.30
2018	12,774.41	21,043.65
2019	14,272.64	23,111.27
2020	16,023.89	28,735.38
2021	19,242.56	33,620.10

Source: CBN Statistical Bulletin, Debt Management Office (DMO).

Nigeria runs a system of government consisting of 36 states, a Federal Capital Territory and 774 local governments. These federating units have their own fiscal stance. They articulate and implement fiscal policies. It is expected that in the federal fiscal framework, the fiscal profile of sub-national governments are considered and built into any model of fiscalism. If sub-national governments run persistent and large fiscal deficits, the fiscal policy of the federal which normally affects the wider economy would be in disarray.

Table 2 highlights the aggregate fiscal profile of states and the Federal Capital Territory for the period 2007 – 2021.

Table 2: Nigeria: Fiscal Profile of State Governments and Federal Capital Territory Finances (₦' Billion)

Year	Total Revenue	Total Expenditure	Surplus (+)/ Deficit (-)	Capital Expenditure/ Total Expenditure (%)	Recurrent Expenditure/ Total Expenditure (%)
2007	2,065.41	2,116.14	-50.73	40.39	59.61
2008	2,934.84	3,021.60	-86.77	48.18	51.82
2009	2,590.67	2,776.91	-186.24	46.24	53.76
2010	3,162.54	3,266.23	-103.70	46.61	53.39
2011	3,410.10	3,541.90	-131.80	38.83	61.17
2012	3,572.52	3,845.10	-272.50	51.11	48.89
2013	3,905.38	4,046.80	-141.42	46.71	53.29
2014	3,672.03	3,983.00	-310.97	46.76	53.24
2015	2,859.02	3,469.16	-610.14	34.64	65.36
2016	2,467.70	3,209.24	-741.54	37.44	62.56
2017	2,992.50	3,702.92	-710.42	28.08	71.92
2018	3,753.36	4,459.60	-706.22	27.07	72.93
2019	3,636.51	4,503.28	-866.77	27.10	72.90
2020	3,656.66	4,763.08	-1,106.42	24.27	75.73
2021	3,761.63	5,206.40	-1,444.76	22.94	77.06

Source: CBN Statistical Bulletin.

The table shows that the deficit which stood at ₦50.73 billion in 2007 rose steadily to ₦610.14 billion in 2015. The deficit rose sharply during the

two recessions (2016 and 2020) as well as the COVID-19 health pandemic. This sharp rise in the deficit confirms our assertion of huge expenditures during recessions and external shocks. Most of the expenditures were directed at personnel and overheads cost, an average of 25 percent of expenditure was spent on capital projects during the period 2019 – 2021. It should be noted that even local governments registered marginal deficits for most of the period 2007 – 2021.

Based on the deficit profile, it is not surprising that states borrowed (domestic and external) during the period 2011–2021. Even local governments have outstanding debts. It is, thus, essential to capture the fiscal stance of states and local governments in the fiscal profile of the federal government (see Tables 3 and 4 below). This requires both fiscal consolidation and co-ordination (Ekpo, 2020, p.15; Ekpo and Udo, 2015).

Table 3: Nigeria: Fiscal Profile of Local Governments' Finances (₦' Billion)

Year	Current Revenue	Total Expenditure	Surplus(+)/ Deficit(-)	Recurrent Expenditure/ Total Expenditure (%)	Capital Expenditure/ Total Expenditure (%)
2007	832.27	827.40	4.90	82.62	17.38
2008	1,378.97	1,381.97	-3.00	59.29	40.71
2009	1,069.36	1,067.61	1.75	66.00	34.00
2010	1,359.20	1,356.67	2.50	60.71	39.29
2011	1,636.15	1,631.92	4.23	78.42	21.58
2012	1,648.25	1,644.80	3.44	81.80	18.20
2013	1,810.05	1,806.91	3.14	78.25	21.75
2014	1,614.80	1,613.83	0.93	88.77	11.23
2015	1,245.64	1,246.32	-0.68	92.31	7.69
2016	1,083.55	1,084.85	-1.30	91.63	8.37
2017	1,337.98	1,338.59	-0.62	89.24	10.76
2018	1,724.72	1,724.97	-0.25	81.46	18.54
2019	1,722.26	1,722.53	-0.27	81.61	18.39
2020	1,636.26	1,636.75	-0.49	82.33	17.67
2021	1,837.32	1,837.92	-0.60	82.91	17.09

Source: CBN Statistical Bulletin.

Table 4: Nigeria: State Governments Domestic and External Debt, 2007-2021

Year	Domestic Debt (₦' Billion)	External Debt (US $ million)
2007	-	1,541.54
2008	-	1,660.50
2009	-	1,820.71
2010	-	2,000.70
2011	1,233.29	2,165.35
2012	1,551.65	2,384.18
2013	1,537.47	2,816.02
2014	1,655.18	3,265.82
2015	2,503.26	3,369.91
2016	2,958.52	3,567.62
2017	3,348.77	4,117.13
2018	3,853.44	4,230.72
2019	4,106.31	4,564.87
2020	4,186.01	4,612.71
2021	4,458.24	4,771.23

Source: CBN Statistical Bulletin, Debt Management Office (DMO).

4.1 Can an economy avoid a debt crisis?

What can cause investors to be unwilling to buy the debt at any interest rate and whether such a crisis is likely to occur unexpectedly? Let us assume the following:

i. A government has quantity *D* of debt due but has no funds immediately available.

ii. It wishes to roll the debt over (that is, to issue *D* of new debt to pay off the debt that is due).

iii. The government will obtain tax revenues during the following period and so wants investors to hold the debt for the period.

iv. The government offers an interest factor of *R*; that is, it offers a real interest rate of *R*-1.

v. Let *T* denote tax revenues for the following period. *T* is random and its cumulative distribution function F(**.**) and is continuous. If *T* exceeds the amount due to the debt in that period, *RD*, the

government pays the debt holder. If *T* is less than *RD*, the government defaults. Default implies a debt crisis.

The sustainability concept especially coupled with the notion of solvency has problems. It is forward-looking and hence it is difficult to predict the future. In theory, debt crisis is possible, but in practice there are several ways of avoiding a debt crisis. Bilateral and multi-lateral institutions, donor agencies may assist a country to either avoid or come out of a debt crisis.

5. How Best to Conduct Fiscal Policy[1]

- From an economic point of view, government expenditure should be undertaken for the following reasons: (i) to provide public goods, (ii) as automatic stabilizers and (iii) for intergenerational equity of welfare.
- Permanent increases in government expenditure should be financed by higher taxes. Temporary increases, possibly due to recession, should be financed by debt, due to the desirability of smoothing taxes.
- Lump-sum taxation is non-distorting, but proportional taxes on consumption, labour and capital are distorting. The justification for distorting taxes derives from the need to finance expenditure and the wish to do so fairly.
- It is optional in the long run for capital taxes to be very low, or even zero. The temptation to tax capital heavily in the short run should be avoided since it would quickly undermine the government's ability and so prove counter-productive.
- The fiscal stance, and, in particular, a fiscal deficit is sustainable if the present value of current and expected future primary fiscal surpluses is sufficient to meet current government debt liabilities.
- Optimal fiscal policy comprises first determining the optimal level of government expenditure. Long-run taxation levels should be set to pay for long-run government expenditure. In the short-run, debt finance should be used for temporary increases in the deficit. In the longer term, debt should be used to achieve intergenerational equity and finance capital projects

[1] This section draws from Wickens, 2008.

including soft infrastructure like education and health. At all times, the fiscal stance should be seen to be sustainable.

- Debts for financing hard infrastructure should be utilized for projects which will pay their way at the end of the projects. Such projects would have undergone appropriate feasibility studies.
- Annual budgets should be released on time and efficiently implemented; delays will cause structural lags in the economy.
- There must be transparency, and accountability in the conduct of fiscal policy at all levels.
- At the federal level, fiscal policy must consider the fiscal profiles of states such that the fiscal stance of the latter does not adversely affect the wider economy.

6. Conclusion

We have examined selected theories of fiscal sustainability and its inherent discussion on debt variables. Fiscal sustainability encompasses the notions of solvency and liquidity. These concepts are relevant in making any sustainability assessment, which itself depends on the situation of each country. The level of debt perceived as sustainable is country-specific and therefore no single "safe" debt ratio can be applied to all economies. It must be noted that socio-political factors do affect deficits, which in turn have a bearing on the fiscal-debt sustainability trajectory.

In practice, it is difficult for a country to default (debt crisis) because there are various options for avoiding a crisis, such as re-scheduling or assistance by donors and multilateral institutions.

In the Nigerian situation where there have been persistent deficits, government seems to service her debts as at when due hence the problems of insolvency and illiquidity do not arise. However, in the long-run increased domestic resource mobilization would reduce the uncertainty associated with dependence on an exogeneous source of revenue – resources from the export of crude petroleum. Furthermore, it is expected that the fiscal profile of sub-national governments, particularly states, are considered in the fiscal stance of the federal government.

Fiscal sustainability which is forward-looking is shrouded with uncertainties and risks, therefore economies must strive to generate primary balance surpluses to address short, medium and long-term deficits.

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APPENDICES

Table A1: Nigeria: Federation Account Allocation Committee (FAAC) to All Tiers of Government (₦' Bn)

Year	Federal	State	Local	13% derivation fund	Total
2007	1,869.19	1,070.86	815.32	437.43	4,192.80
2008	2,655.45	1,511.51	1,151.53	637.82	5,956.31
2009	2,151.10	1,387.78	992.28	455.33	4,986.48
2010	2,416.51	1,538.65	1,252.42	548.55	5,756.12
2011	3,237.04	1,921.61	1,459.35	765.30	7,383.31
2012	3,451.76	2,084.69	1,583.01	774.26	7,893.72
2013	3,711.75	2,251.34	1,708.58	844.28	8,515.95
2014	3,404.45	2,062.63	1,563.15	694.20	7,724.44
2015	2,600.98	1,597.64	1,205.19	410.26	5,814.07
2016	2,081.41	1,347.23	1,011.04	294.69	4,734.36
2017	2,563.97	1,685.38	1,263.32	413.22	5,925.90
2018	3,483.89	2,210.73	1,667.25	640.01	8,001.87
2019	3,344.56	2,174.97	1,636.76	550.13	7,706.42
2020	3,028.04	2,117.19	1,583.61	450.26	7,179.11
2021	3,127.56	2,392.12	1,776.79	454.58	7,751.04

Source: CBN Statistical Bulletin..

Table A2: Nigeria: Local Governments Outstanding debts, 2007-2020

Year	Outstanding Debts (₦' Million)
2007	25,363.78
2008	2,906.13
2009	63,745.92
2010	12,813.21
2011	52,450.03
2012	56,755.51
2013	8,290.36
2014	39,685.57
2015	12,027.66
2016	19,129.26
2017	220,196.64
2018	179,220.18
2019	33,325.12
2020	33,298.80

Source: CBN Statistical Bulletin, Debt Management Office (DMO).