DEBT MANAGEMENT OFFICE
NIGERIA

REPORT OF THE ANNUAL NATIONAL DEBT SUSTAINABILITY ANALYSIS (DSA)

2009

TABLE OF CONTENTS

CHAPTER FIVE

CHAPTER SIX

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

The 2009 National Debt Sustainability Analysis (DSA) was conducted by the Nigeria Debt Management Office (DMO) between May 27th and June 7th, 2009 in conjunction with the following stakeholders: Federal Ministry of Finance (FMF), Central Bank of Nigeria (CBN), National Planning Commission (NPC), Budget Office of the Federation (BOF), National Bureau of Statistics (NBS) and the West African Institute for Financial and Economic Management (WAIFEM). The purpose of the exercise was to assess Nigeria's debt sustainability and financing gaps in the medium to long term, as well as how best these gaps could be filled with additional borrowing and/or other financial inflows. The exercise was timely in view of the unfolding global financial crisis which adversely affected the price of crude oil, which is the major foreign exchange earner for the country.

The DSA exercise was based on the updated IMF/World Bank Debt Sustainability Analysis (DSA) Template for Low Income Countries Debt Sustainability Framework (LIC-DSF). The Template generates output tables that display debt and debt-service dynamics under baseline, alternative/country specific and stress tests scenarios. The exercise, which used the country's debt portfolio and other macroeconomic data as inputs, is anchored on achieving Vision 20:2020 and the 7-Point Agenda of the current administration.

The Baseline, Alternative and Country Specific scenarios were used in the conduct of the exercise. The Baseline scenario was anchored on the main thrust of the 2009 budget, whilst the Alternative and Country Specific scenarios assumed the introduction of 'shocks' or vulnerabilities to the macroeconomic variables. The Alternative scenario also incorporates the Standardized Bound or Stress Tests that come with the DSA Template. Two Country Specific scenarios were constructed and applied in the simulation exercises, viz: The Optimistic or Accelerated Growth scenario assumed massive injection of investment funds to achieve the goals of Vision 20:2020 and the 7-Point Agenda, while the Pessimistic or Reduction in Oil Production and Global Financial Meltdown scenario assumed a contraction of the macro economy.

The results of the DSA exercise were benchmarked against the World Bank's Country Policy and Institutional Assessments (CPIA) index which classifies countries into one of the three policy performance categories (strong, medium and poor). Nigeria is currently classified as a medium performer with a rating of 3.4. In accordance with international best practice, an analysis of risk of debt distress was also included in the exercise.

Nigeria's debt stock and flows were analyzed based on macroeconomic assumptions of the baseline scenario and standardized shocks. They were also analyzed in relation to indicative country specific debt burden thresholds.

Under the Baseline scenario, the following assumptions were made:

- Average real GDP growth rate of 6.65 percent, anchored on the Millennium Development Goals (MDG) targets.
- A double-digit inflation rate averaging 11.5 percent yearly over the period 2009-2015.
- Oil price projected to averaged US$48 per barrel for the period 2009-2013 and thereafter,

US$55 per barrel for the rest of the period under review.

- The OPEC oil production quota projected at 2.4 million barrels per day by 2029.
- Budget deficit for the entire government sector to average at 3 percent of the GDP.
- Projected growth in exports and imports throughout the projection period.
- Exchange rates expected to stabilize at US$1/N150 in the medium term from 2009-2015 and, thereafter, depreciate to US$1/N160 from 2020-2029.
- External borrowing at a minimum concessional Grant Element of 35 percent.
- Projected deficit to be financed from external and domestic sources at a ratio 40:60.
- Restructuring of the domestic debt profile in the ratio of 25:75 for short and long term instruments.

Under the Country Specific Optimistic Scenario (Accelerated Growth) the following assumptions were made:

- Achievement of the 7-Point Agenda and the Vision 20:2020
- Average real GDP growth rate of 11 percent.
- A single digit inflation rate for the period 2010-2029.
- Improvement in government revenue due to favourable outlook in the oil industry.
- Average oil price of US$71 per barrel throughout the projection period.
- Total oil production to peak above 3 million barrels per day.
- Current account surplus due to exports growing faster than imports throughout the projection period.
- Naira appreciation against major international currencies. The rate is expected to remain stable at N120/US$1.
- Fiscal deficit financed largely from the less concessional sources.

Under the Country Specific Pessimistic Scenario (the reduced oil Production and Global Financial Meltdown) the following assumptions were made:

- Prolonged impact of the global financial meltdown in the medium term and possible reduction in oil production.
- Average real GDP growth rate of 2.9 percent in 2009 based on the IMF projection and not more than an average of 3 percent over the projection period.
- A single digit inflation rate for the period 2010-2029.
- Shortfall in oil production output due to the Niger Delta issue and possible reduction in Nigeria's OPEC production quota.
- Average oil production of 1.75 mbpd throughout the projection period.
- Average oil price of US$33 per barrel throughout the projection period.
- Sharp depreciation of the official exchange rate of the Naira from N145 to N230 per US dollar during the projection period.

- Current account deficit due to imports growing faster than exports throughout the projection period.

The result of the 2009 DSA baseline scenario showed that the country's external and total public sector debt ratios would remain sustainable, well below their various indicative debt burden thresholds in the medium to long term, in line with Nigeria's status as medium policy performing country. With regard to external debt sustainability, Public and Publicly Guaranteed (PPG) external debt to GDP ratio is projected at 1.6 percent in 2009 and will rise to 11.5 percent in 2029 which is well below the indicative threshold of 40 percent. The external debt to exports and external debt to revenue ratios in 2009 are projected at 5 percent and 11 percent respectively, which are well below their 150 percent and 250 percent thresholds, and they will remain sustainable throughout the projection period. The external debt service to exports and external debt service to revenue ratios are 0.5 percent and 1 percent in 2009, which is well within their thresholds of 20 percent and 30 percent respectively and they are expected to remain sustainable throughout the projection period.

Standardised bound tests under the baseline scenario for external debt indicated that even in the presence of shocks such as a one-time 30 percent depreciation of the Naira and borrowing on less concessional terms, Nigeria is not vulnerable to debt distress throughout the projection period.

In summary, all the available external debt sustainability indicators under the baseline scenario showed that Nigeria's external debt will remain sustainable throughout the projection period.

The Total Public Sector Debt (external and domestic) to GDP ratio under the baseline scenario is projected at 9.2 percent in 2009 and would rise to 17.4 percent in 2029, which is well within the 40 percent threshold. The PV of Total Public Sector debt to revenue ratio is projected at 58.7 percent in 2009 and would rise to 233.7 percent in 2029, against the threshold of 250 percent. However, the Total Public Sector debt service to revenue ratio is projected to increase from 15.7 percent in 2009 to 27.8 percent in 2015, after which it would exceed the sustainability threshold. The latter which is a measure of liquidity will increase pressure on the country's ability to service its total public debt after 2015.

The baseline standardized bound tests for total public sector debt indicates that a one-time 30 percent real depreciation of the Naira would have little effect on the total debt sustainability as measured by the total public sector debt to GDP ratio. However, a 10 percent of GDP increase in other debt creating flows would worsen the total public sector debt sustainability position of the country.

In summary, the solvency indicators under the baseline scenario showed that Nigeria's total public debt (external and domestic) will remain sustainable throughout the projection period. However, there is the risk of illiquidity which will affect the country's ability to service its total public debt in the medium to long term. The rising domestic debt service obligations will in the medium to long term pose a challenge to the country's liquidity indicators of debt sustainability.

Under the Country-Specific Optimistic Scenario (Accelerated Growth), the country's external debt ratios would remain sustainable in the medium term. The PV of external debt to GDP ratio is

projected at 1.6 percent in 2009 and will rise to 38.5 percent in 2017 after which it would exceed the sustainability threshold of 40 percent. The PV of external debt to exports ratio is projected at 5.0 percent in 2009 and would rise to 149.9 percent in 2016, and after which it would exceed the 150 percent threshold. The PV of external debt to revenue ratio is projected at 10.7 percent in 2009 and would increase to 214.2 percent in 2014, after which it would exceed the 250 percent indicative threshold. The above solvency indicators which are based on the macro assumption of massive increase in investments mainly from the less concessional sources would lead to increase in the debt burden of the country in the medium term and unsustainability in the long term.

The liquidity indicators mentioned below also display a similar trend mentioned above. The external debt service to exports ratio is projected at 0.5 percent in 2009 and would increase to 16.8 percent in 2014 after which it would exceed the 20 percent sustainability threshold. The external debt service to revenue ratio is projected at 1.1 percent in 2009 and would rise to 16.6 percent in 2019 after which it would exceed the 30 percent indicative threshold. These liquidity indicators highlight the mounting challenge of reliance on external funding sources for development as it would put pressure on government's ability to service the debts in the medium term and lead to unsustainability in the long term.

In summary, both the solvency and liquidity indicators under the Country Specific scenario of increased massive investments from the less concessional external sources to finance the development targets of the Vision 20:2020 and the 7-Point Agenda will lead to the problem of debt unsustainability in the medium to long term. This calls for caution in the manner the country accesses foreign loans to finance the proposed development agenda.

Under the Country-Specific Pessimistic Scenario (Reduction in Oil Production and Global Financial Meltdown), the PV of Total Public Sector debt to GDP ratio is projected at 8.7 percent in 2009 and would increase to 39.4 percent in 2018 after which it would remain unsustainable. The PV of Total Public Sector debt to revenue ratio is projected at 58.7 percent in 2009 to increase to 233.7 percent in 2029 which is within the indicative threshold. The Total Public Sector debt service to revenue ratio is projected at 15.6 percent in 2009 and would rise above the indicative threshold after 2010. In general, the simulation under the pessimistic scenario showed that Nigeria's total public debt would not be sustainable in the long term as long as the global financial meltdown persists and if there is no early resolution of the Niger Delta issue.

As a result of dearth of data at the sub-national level, the DSA could not be conducted for the States. However, it is expected that, as soon as the various initiatives put in place by the DMO to assist the States maintain reliable domestic debt data is achieved, in addition to the on-going efforts by the National Planning Commission (NPC) and the National Bureau of Statistics (NBS) to also assist them come up with the States' GDP figures, it would then be possible to conduct a DSA for each State. In the meantime, States are implored to imbibe the culture of fiscal prudence, develop sub-national debt management capabilities and guard against incurring frivolous debts which are not in accordance with the Fiscal Responsibility Act and the approved Sub-national Borrowing Guidelines as enshrined in the National Debt Management Framework (NDMF). The enactment of the Fiscal Responsibility legislations in the States and the development of debt management institutions in the States should be more vigorously pursued and encouraged by all relevant stakeholders.

In conclusion, the results of the baseline scenario showed that Nigeria's public debt is sustainable in spite of the global financial meltdown, the decline in the crude oil price and the reduction in crude oil production, whilst the results of the country-specific scenarios showed that the country's debt would be unsustainable in the long term. This is an evidence that Nigeria is vulnerable to excessive reliance on less concessional sources of external borrowing, oil production shocks arising from the Niger Delta insecurity and the global meltdown. A reduction in oil production and prolonged global financial meltdown would also make Nigeria experience difficulties in servicing its debts, as a result of falling oil revenues. Therefore, in order to maintain debt sustainability, the following recommendations are made:

i. Based on the existing structure of Nigeria's total debt profile and the emphasis on domestic borrowing as well as the development of the domestic debt market as enshrined in the National debt Management Framework (NDMF), it is recommended that an appropriate funding mix of the ratio of 40 percent external financing and 60 percent domestic financing respectively be adopted to finance all the three tiers of government under the Vision 20:2020 and the 7-Point Agenda. However, for the external borrowing component, caution should be exercised in accessing less concessional funds.

ii. Alternative/additional funding sources, such as Joint Ventures and Public-Private-Partnerships (PPPs) should be vigorously pursued.

iii. Introduction of appropriate measures for the speedy recovery of the economy such as massive investment and modernization of agriculture, investment in critical infrastructure (power and energy) and improving the efficiency of revenue generating agencies.

iv. Early global economic recovery would further positively impact on the country's debt sustainability position.

v. The speedy resolution of the Niger Delta issue would contribute to debt sustainability through the successful implementation of the Vision 20:2020 and the 7-Point Agenda.

vi. States should imbibe the culture of fiscal prudence, develop sub-national debt management capabilities and guard against incurring frivolous debts which are not in accordance with the Fiscal Responsibility Act and the National Debt Management Framework (NDMF).

vii. Vigorously pursue and encourage the enactment of Fiscal Responsibility legislations in the States, and support DMO's efforts to develop debt management institutions and build capacity in the States. In this regard, it is encouraging to note that the Fiscal Responsibility Commission which is responsible for monitoring and enforcing standard international best practice in public finance management has been inaugurated and started operations.

viii. Although the baseline scenario analysis revealed that the country's total debt will remain sustainable in the medium to long term, consistent with medium term sustainability and the country's economic conditions, there should be prudent borrowing well below the recommended threshold of 40 percent of total debt to GDP ratio in line with international best practice. Based on the recommended threshold, the borrowing limit for all the three tiers of government for the year 2010 would be in the

ratio of US$5.89 billion from external and N1,325.7 billion from domestic sources respectively. However, it is further recommended that the total borrowing limit for the Federal Government would be considerably lower than the above DSA recommendation. Thus, in order to maintain fiscal prudence consistent with the provisions of the Fiscal Responsibility Act (FRA), the DSA recommends a borrowing cap for the Federal Government in the year 2010 at 15 percent of US$5.89 billion (US$883.53 million) from external sources and 30 percent of N1,325.7 billion (N397.71 billion) from domestic sources.

CHAPTER ONE

1.0 INTRODUCTION

This document presents the outcome of the 2009 Debt Sustainability Analysis (DSA) for Nigeria, conducted using the Debt Sustainability Framework for Low-Income Countries (DSF-LIC) Template. This DSA exercise was conducted by Nigeria's DSA Team, comprising all relevant stakeholder institutions under the leadership of the DMO. The other institutions involved were the Federal Ministry of Finance (FMF), the Central Bank of Nigeria (CBN), the National Planning Commission (NPC), the Budget Office of the Federation (BOF), and the National Bureau of Statistics (NBS). The analysis provides a comprehensive framework for the analysis of debt issues, including new financing within the context of long term macroeconomic projections. In addition, the analysis incorporates risk assessment of existing the debt portfolio and sub-national debt sustainability issues.

Nigeria remains at low risk of debt distress in spite of the impact of the global financial crises on the economy. All external debt sustainability indicators are projected to remain well below the World Bank/IMF debt thresholds on the baseline, resulting from Nigeria's mostly concessional and low level external debt, as well as good economic management in recent times. The concessionality of the debt is in line with the National Debt Management Framework (NDMF) which seeks to ensure that the government's financing needs and obligations are met at the lowest possible cost, consistent with a prudent degree of risk. To that effect, the External Debt Management Strategy is anchored on prudent access to concessionary financing needed to fund growth and development within a sustainable debt profile, while facilitating private sector participation in the funding of critical infrastructure, in particular, and the real sector in general. Also, the objective of the Domestic Debt Management Strategy is to further broaden and deepen the domestic bond market through: the introduction of a variety of government securities; the use of appropriate technology to aid effective and efficient issuance and trading; the improvement of regulatory framework; and, the facilitation of the issuance of corporate bonds by the private sector for the development of the real sector of the economy.

The objectives of the 2009 DSA are to: update the 2008 DSA to incorporate recent developments in the Nigerian economy and the global environment in line with best practice; maintain Nigeria's public debt at sustainable level and support macroeconomic stability and growth; serve as an input into the 2010 budget plan; flag issues of sub-national debt sustainability; and, analyze government's borrowing strategies and risk exposure with a view to advising government on the optimal financing mix.

The salient features of the 2009 DSA are the use of the latest DSF-LIC Template (released in February, 2009) and the incorporation of the analysis of the impact of the global financial meltdown.

1.1 RECENT DEVELOPMENTS IN THE NIGERIAN ECONOMY

Macroeconomic developments in the Nigerian economy remained favorable in 2008 despite the global financial meltdown that affected the global economy. This was due to a sustained economic growth, buoyant external sector position, appreciable stock of external reserves, low fiscal deficit to GDP ratio, significant credit flow to the private sector, and low level debt indicators. The aggregate output growth in the economy, measured by the Gross Domestic Product (GDP) was 6.4 percent, driven largely by the non-oil sector which grew by 9.3 percent. However, the oil sector recorded a negative growth and contributed less than 20 percent to the GDP as a result of the Niger Delta issue. The impressive performance of the non-oil sector was driven by sustained positive developments in the agricultural, services, building and construction, as well as wholesale and retail trade sectors of the economy.

Fiscal operations remained within the Medium-Term Framework. At N7, 866.6 billion or 32.7 percent of GDP, the Federation Account revenue (gross) increased by 37.6 percent above the level in 2007. However, total government expenditure rose by 38.1 percent to N7, 092.29 billion in 2008. The increase in expenditure was attributed to substantial increase (56.9 percent) in capital expenditure for the rehabilitation of the decayed infrastructure.

In the external sector, the country recorded a current account surplus of N34.2 billion representing an increase of 62.6 percent over the level in 2007. This was attributable to high international crude oil price which rose from an average of US$74.96 per barrel in 2007 to US$101.15 per barrel in 2008. The external reserve position rose by 3.3 percent, from US$49.58 billion as at December 2007 to US$53 billion by end December 2008, capable of financing 13.8 months of imports. The exchange rate also remained stable for significant part of 2008, until the last quarter when it depreciated against the US Dollar by about 5.4 percent to an average of N118.92 per US Dollar by end 2008.

Developments in the monetary sector showed that aggregate bank credit (net) to the domestic economy expanded significantly reflecting the substantial increase in credit to the private sector. However, the credit to the Federal Government declined on account of robust revenue and significant accumulation of deposits in the banking system thus making government a net creditor to the system. These situations resulted in increases in general price level with the average inflation rate rising from 5.42 percent in 2007 to 11.53 percent in 2008.

CHAPTER TWO

2.0 DEBT PORTFOLIO REVIEW

This chapter presents a review of Nigeria's public debt portfolio for the period 2004 to 2008.

2.1 TOTAL PUBLIC DEBT OUTSTANDING

The total public debt outstanding (external and securitized domestic debt of the Federal Government) stood at US$21,398.91 million as at 31st December, 2008 (Table 2.1).

TABLE 2.1: TOTAL PUBLIC DEBT OUTSTANDING, 2004-2008 (US$' MILLION)

TYPE	2004	2005	2006	2007	2008[1]
External Debt Stock	35,944.66	20,477.97	3,544.49	3,654.21	3,720.36
Domestic Debt Stock	10,314.79	11,828.76	13,805.20	18,575.67	17,678.55
TOTAL	**46,259.45**	**32,306.73**	**17,349.69**	**22,229.88**	**21,398.91**

PERCENTAGE (%) SHARE

TYPE	2004	2005	2006	2007	2008
External Debt Stock	77.7	63.39	20.43	16.44	17.39
Domestic Debt Stock	22.3	36.61	79.57	83.56	82.61
TOTAL	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

[1] Official CBN Exchange Rate of N131.25/US$1 as at 31/12/08

The trend analysis of the total public debt stock over the period 2004 to 2008 shows that during the period 2004 to 2005, external debt made up the bulk of total public debt. However, after the exit from the Paris and London Clubs debts, domestic debt continued to make up the bulk of the total public debt.

2.2 TOTAL PUBLIC DEBT SERVICE PAYMENTS

Total debt service payments for the year 2008 amounted to US$ 4,055.30 million (Table 2.2). Of these payments, the sum of US$3,590.67 million or 88.54 percent constituted domestic debt principal repayments and interest payments, while US$464.63 million or 11.46 percent was for external debt service payments. Payment to Multilateral creditors constituted 81.92 percent, while 8.98 percent was in respect of Oil Warrants.

TABLE 2.2:TOTAL DEBT SERVICE PAYMENTS, 2004-2008 (US$' MILLION)

TYPE	2004	2005	2006	2007	2008[1]
External Debt Service	1,754.76	8,940.93	6,729.20	1,022.04	464.63
Domestic Debt Service	1,534.94	1,166.28	1,313.70	2,162.91	3,590.67
TOTAL	**3,289.71**	**10,107.21**	**8,042.90**	**3,184.95**	**4,055.30**
PERCENTAGE (%) SHARE					
TYPE	**2004**	**2005**	**2006**	**2007**	**2008**
External Debt Service	53.34	88.46	83.67	32.09	11.46
Domestic Debt Service	46.66	11.54	16.33	67.91	88.54
TOTAL	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

[1] Official CBN Exchange Rate of N131.25/US$1 as at 31/12/08

2.3 EXTERNAL DEBT STOCK

Nigeria's total external debt outstanding as at 31st December, 2008 was US$3,720.36 million (Table 2.3). Table 2.1 displayed the trend in Nigeria's external debt stock over the five-year period 2004 to 2008. The external debt stock decreased significantly between 2004 and 2006 due to the Paris Club debt exit deal signed in 2005 and finalized in April 2006, as well as, the exit from the London Club debt obligations between 2006 and 2007.

Multilateral debts continued to constitute the bulk of Nigeria's outstanding external debt portfolio in 2008. These are mainly concessional loans which amounted to US$3,172.87 million or 85.28 percent of the total external debt stock, while bilateral and private debts constituted the remaining 14.72 percent of the external debt portfolio (Table 2.3). Of the Multilateral loans, US$2,682.39 million or 84.54 percent was owed to concessional multilateral creditors and US$490.48 million or 15.46 percent was owed to non-concessional multilateral creditors.

TABLE 2.3: EXTERNAL DEBT STOCK BY CREDITOR CATEGORY AS AT 31st DECEMBER, 2008 (US$' MILLION) [1]

Creditor Category	Principal Balance 1	Principal Arrears 2	Interest Arrears 3	Total 4	Per centage 5
MULTILATERAL					
World Bank Group					
IBRD	229.73	0.00	0.00	229.73	
IDA	2,235.31	0.00	0.00	2,235.31	
IFAD	54.19	0.00	0.00	54.19	
African Dev. Bank Group					
ADB	260.75	0.00	0.00	260.75	
ADF	258.54	0.00	0.00	258.54	
EDF	134.35	0.00	0.00	134.35	
SUB-TOTAL	***3,172.87***	**-**	**-**	***3,172.87***	**85.28%**
NON - PARIS					
BILATERAL	182.42	0.000	0.000	182.42	
COMMERCIAL	365.07	0.00	0.00	365.07	
SUB TOTAL	**547.49**			**547.49**	**14.72%**
GRAND TOTAL	**3,720.36**	**0.00**	**0.00**	**3,720.36**	**100.00%**

[1] Official CBN exchange rate of US$ vis-à-vis other currencies as at 31/12/2008

2.4 EXTERNAL DEBT SERVICE PAYMENTS

Table 2.4 shows that the largest external debt service payments of US$380.63 million, or 81.92 percent, were made to the multilateral creditors as at the end of December, 2008. The second largest payment amounting to US$41.72 million, or 8.98 percent, was made in respect of Oil Warrants.

TABLE 2.4: EXTERNAL DEBT SERVICE PAYMENTS, 2004-2008 (US$' MILLION)

CREDITOR CATEGORY	2004	2005	2006	2007	2008
A. Official:					
1. Bilateral:					
Paris Club	994.45	8,070.79	4,519.87	0.00	0.00
Non-Paris Club	11.65	11.39	25.56	27.48	**6.63**
2. Multilateral	487.28	471.67	426.62	392.77	380.63
Sub-Total	1,493.38	8,553.85	4,972.05	420.25	387.26
B. Private:					
1. London Club (oil warrants)[1]	90.15	169.86	1,584.58	102.59	41.72
2. Promissory Notes	171.23	213.55	170.84	476.6	0
3. Others (including Non-Paris Commercial)	0.00	3.67	1.60	22.60	35.65
Sub-Total	261.38	387.08	1,757.14	601.79	77.37
Grand Total	1,754.76	8,940.93	6,729.20	1,022.04	**464.63**

[1]The 2008 payments made to London Club debt were in respect of Oil Warrants **only**, as there has been no London Club stock since the end of 2007.

2.5 DOMESTIC DEBT STOCK

The securitized domestic debt outstanding as at 31st December, 2008 stood at N2,320.31 billion. Table 2.5 shows the stock and mix of domestic debt from 2004 2008, broken down on instruments basis. The stock of FGN bonds increased progressively from N72.56 billion in 2004 to N1,186.16 billion in 2007 and N1,445.60 billion in 2008, while NTBs decreased from N871.58 billion in 2004 to N574.92 billion in 2007 and N 471.93 billion in 2008. The Treasury bonds and Development Stocks were legacy debt instruments from past issuances of the Federal Government of Nigeria. The stock of Treasury Bonds decreased from N424.94 billion in 2004 to N407.93 billion in 2007 and N402.26 billion in 2008, while Development Stocks decreased from N1.25 billion in 2004 to N0.62 billion in 2007 and N0.52 billion in 2008.

Table 2.5: DOMESTIC DEBT OUTSTANDING BY INSTRUMENTS, 2004 - 2008 (₦'BILLION)

INSTRUMENTS	2004	2005	2006	2007	2008
FGN BONDS	72.56	250.83	643.94	1,186.16	1,445.60
NTBs	871.58	854.83	695.00	574.92	471.93
TREASURY BONDS	424.94	419.27	413.60	407.93	402.26
DEVELOPMENT STOCKS	1.25	0.98	0.72	0.62	0.52
TOTAL	1,370.33	1275.08	1753.26	2,169.63	2,320.31

2.6 DOMESTIC DEBT SERVICE PAYMENTS

Total domestic debt service payments for the year 2008 was N471.28 billion, compared to N252.63 billion in 2007, reflecting a substantial increase of N218.65 billion, or 86.55 percent (Table 2.6). The significant increase was as a result of increase in the amount of matured debt redeemed (N134.84 billion in 2008 compared to N67.26 billion 2007), interest payments on new FGN bonds issued (N13.51 billion), as well as exercise of the Call Option on the Local Contractors' Debts, in 2008 (N103.45 billion).

TABLE 2.6: DOMESTIC DEBT SERVICE PAYMENTS, 2006 - 2008 (N' BILLION)

Year	Domestic Debt Stock	Debt Service
2006	1,753.26	222.57
2007	2,169.63	252.63
2008	2,320.31	471.28

CHAPTER THREE

3.0 SCENARIO ASSUMPTIONS

Three scenarios were constructed for the projection period 2009-2029, in order to assess the impact of changing macroeconomic variables on the debt indicators of solvency and liquidity. These scenarios assumptions were as follows:

3.1 BASE LINE

- Average real GDP growth rate of 6.65 percent, anchored on the Millennium Development Goals (MDGs) targets. The non-oil sector is the major driver particularly agricultural, services, wholesale and retail sectors. However, the GDP is expected to moderate downward towards 2029.

- A double-digit inflation rate averaging 11.5 percent over the period 2009-2015, was assumed. This is largely anchored on the anticipated expansionary fiscal policies of the government sector as a result of massive infrastructural investment in electricity, railway, etc. Overall, an inflationary rate averaging 10.62 percent is projected over the projection period.

- Oil price is projected to average US$48 per barrel for the period 2009-2013 and thereafter average US$55 for the rest of the period under review, premised on the expected global economic recovery beginning from 2010. The production quota is projected at 2.4 million barrels per day by 2029. Consequently, expenditure projected on the basis of real GDP growth rate, includes the non-oil revenue, which is projected to grow in line with the growth rate of the GDP.

- Budget deficit for the entire government sector will average at 3 percent of the GDP in line with the provision of the Fiscal Responsibility Act.

- Exports will grow in line with world demand as well as growth in the GDP.

- A growth in imports is estimated for 2009. This is anchored on the high import content of infrastructure development projects and importation of refined petroleum products, pending when the new refineries come on stream. The trend is expected to continue up to 2020, and would start to decline progressively up to 2029. Consequently, the current account balance would increase significantly.

- A current account surplus position will be maintained up to 2017 and thereafter a deficit for the rest of the projection period.
- Exchange rates are expected to stabilize at US$1/N150 in the medium term from 2009-2015 and thereafter, depreciate to US$1/N160 from 2020-2029.
- The main thrust of the 2009 budget is the 7-Point Agenda and the achievement of the Millennium Development Goals (MDGs) targets, with the following key assumptions: crude oil benchmark of US$45, crude oil production of 2.29 mbpd, GDP growth rate of 8.9 percent, inflation rate of 8.2 percent and exchange rate of N125/US$1.
- Maintain current external borrowing plan from concessional sources at minimum grant element of at least 35 percent.
- Projected deficit financing distribution of 40:60 for external and domestic finances respectively.
- Maintain current policy thrust of lengthening domestic maturity profile of 30:70 for short and long term debts. However the short term domestic debt average growth is projected to be higher than the corresponding long term domestic debt growth for the period.

3.2 COUNTRY SPECIFIC OPTIMISTIC SCENARIO: ACCELERATED GROWTH

This scenario represents the accelerated growth, aimed at achieving Vision 20:2020 and the 7-Point Agenda.

The following assumptions were made:

- Average real GDP growth rate of 11 percent, with threshold of about US$900 billion and a per capita income of about US$4,000, to be achieved by year 2020. As in the baseline scenario, the growth is to be driven mainly by the non-oil sector.
- A single digit inflation rate averaging 9.46 percent for the period 2010-2029 is being projected. This is due to the expected low food prices.
- Improvement in government revenue due to favourable outlook in the oil industry, as oil production quota and prices are expected to grow. The price of oil is expected to average at US$71 per barrel throughout the projection period, due to anticipated boom of the global economy. Likewise, total oil production is expected to peak above 3 million barrel per day as a result of the restoration of peace in the Niger Delta.
- Exports will grow faster than imports, thus, the country would continue to experience current account surplus.
- Exchange rate would improve, with the Naira appreciating against major international currencies. The rate is expected to remain stable from 2011 at average of N120/US$1.

- The projected fiscal deficit is to be financed largely from less concessional sources.
- Increase growth of short term debt and arrears clearence.

3.3 COUNTRY SPECIFIC PESSIMISTIC SCENARIO: THE REDUCTION IN OIL PRODUCTION AND THE GLOBAL FINANCIAL MELTDOWN

This scenario assumes prolonged impact of the global financial meltdown over the medium term and reduction in oil production.

The following assumptions were made:

- Average real GDP growth rate of 2.9 percent in 2009, based on the IMF's projection owing to the global economic crisis and not more than an average of 3.5 percent over the projection period. This is due to expected sluggish growth of the non-oil sector, occasioned by dilapidating infrastructure and increasing commodity price volatility.
- A single digit inflation rate for the period 2010-2029.
- Shortfall in oil production output (1.75 mbpd throughout the projection period) due to the Niger Delta issue and possible reduction in Nigeria's OPEC production quota.
- Reduction in oil revenue due to decline in oil prices averaging US$33 throughout the projection period.
- Official exchange rate will sharply depreciate from about N145 to N230 per dollar during the projected period.
- The external sector will remain in deficit owing to the expected low demand for both non-oil and oil exports in view of the current search for alternative sources of fuel by developed nations. This development, coupled with importation of capital goods, would produce current account deficit.
- Short fall in revenue financed by additional new borrowing over the baseline levels.

CHAPTER FOUR

4.0 RESULTS ANALYSIS

4.1 BASELINE

4.1.1 EXTERNAL DEBT SUSTAINABILITY ANALYSIS

The macro assumptions (Table 4.2) that informed this analysis influenced the outcome of external debt sustainability under the baseline scenario. The baseline results of the DSA showed that both the solvency and liquidity indicators of Nigeria's external debt will remain sustainable throughout the projection period. Figure 4.1 shows a detailed graphical representation of the external debt sustainability status of the country. The Public and Publicly Guaranteed external debt (PPG) under the baseline is projected to remain at low level in nominal terms, with all external debt ratios projected to be well below the indicative debt burden thresholds for medium policy performer country. The PV of external debt-to-GDP ratio increased from 1.6 percent in 2009 to 9.9 percent in 2027, compared with the indicative threshold of 40 percent (Table 4.1and Figure 4.1).

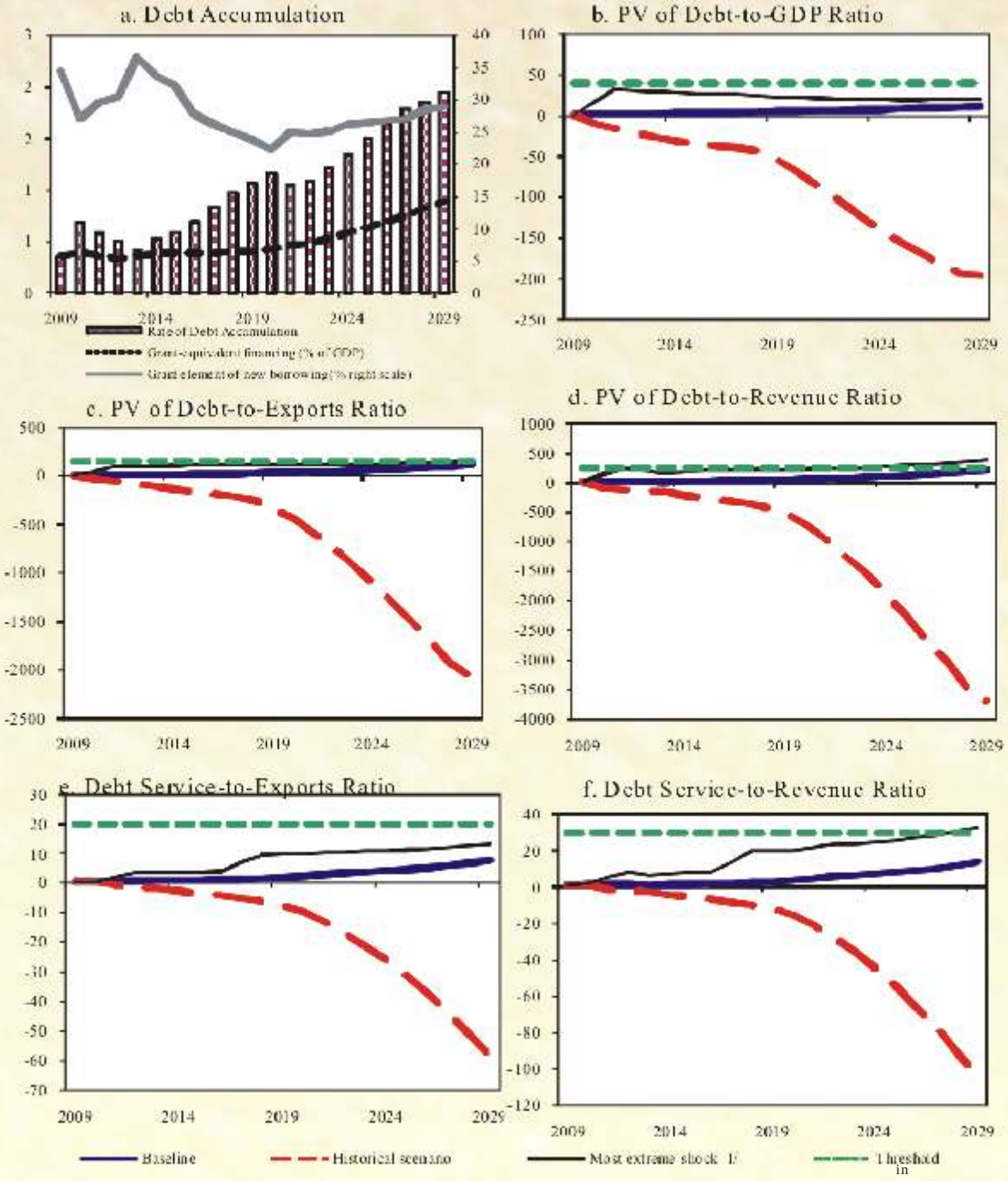
In addition, the other solvency indicators, namely the external debt-to-exports and external debt-to-revenue ratios in 2009 are projected at 5 percent and 11 percent, respectively which are also well below their 150 percent and 250 percent thresholds. Thereafter, they would remain sustainable throughout the projection period. The liquidity indicators (external debt service-to-exports and external debt-to-revenue ratios) are also sustainable throughout the projection period. The external debt service-to-exports ratio is projected to increase from 0.5 percent in 2009 to 7.8 percent in 2029, while the external debt service-to-revenue ratio would steadily increase from 1.1 percent in 2009 to 13.8 percent in 2029. The threshold of Grant Element of Nigeria's external debt as stipulated in the National Debt Management Framework is a minimum of 35 percent. The DSA projected that the Grant Element will decline from over 34 percent in 2009 to around 29 percent in 2029, reflecting a shift towards non concessional borrowing. Thus, the net present value of external debt to GDP which was 1.6 percent in 2009, would be slightly lower than nominal external debt to GDP of 2.7 percent, and this trend would continue throughout the projection period. Real GDP which average 6.4 percent between 2006 and 2008, is projected to average 6.65 percent between 2009 and 2029.

TABLE 4.1: POLICY-BASED EXTERNAL DEBT BURDEN THRESHOLDS FOR NIGERIA

POLICY-BASED EXTERNAL DEBT BURDEN THRESHOLDS FOR NIGERIA					
PV of Debt as a Percentage of			THRESHOLDS	NIGERIA'S RATIOS	
				2009	2029
	GDP		40	1.6	9.9
	EXPORTS		150	5	122.3
	REVENUES		250	11	216.1
Debt Service as a Percentage of					
EXPORTS			20	0.5	7.8
REVENUES			30	1.1	13.8
Projected Debt Stock (US$ 'B)				5.8	302.3

Stress tests indicate that the PV of PPG external debt is most sensitive to exchange rate depreciation (Table 4.4). A one-time 30 percent depreciation of the Naira would increase the PV of external debt from 2 percent in 2009 to 16 percent in 2029. Under the stress test (borrowing on less favourable terms), the PV of external debt-to-GDP rose from 2 percent in 2009 to 21 percent in 2029, compared with the baseline growth of the corresponding period of 2 percent and 11 percent respectively. If the economy is subjected to the most extreme stress test, which is a combination of real GDP growth at historical average and increase in debt creating flows at historical average, the indicator (PV of external debt to GDP) rises above 15 percent in 2010, much higher than 3 percent on the less favourable terms and 2 percent on the baseline. The trend would remain so throughout the projection period (Figure 4.1). This implies that Nigeria's external debt will remain sustainable even under the most extreme stress test conditions, throughout the projection period.

FIGURE 4.1: NIGERIA: INDICATORS OF PUBLIC AND PUBLICLY GUARANTEED EXTERNAL DEBT UNDER BASE LINE AND STRESS TESTS, 2009-2029



Source: DMO

1/ The most extreme stress test is the test that yields the highest ratio in 2019. In figure b. it corresponds to a Combination shock c. to a Non-debt flows shock; in d. to a Combination shock; in e. to a Non-debt flows shock and in picture f. to a Combination shock

4.1.2 PUBLIC DEBT SUSTAINABILITY ANALYSIS

The baseline scenario macro assumptions for public debt sustainability are reflected in Table 4.3 in the appendix. Figure 4.2 shows the solvency indicators of the total public debt (external and domestic)-to-GDP ratio to be increasing but within the sustainability threshold throughout the projection period. However, the liquidity indicator shows sustainability only in the medium term.

The total public debt-to-GDP ratio is projected at 9.2 percent in 2009, and an average of 9.5 percent between 2010 and 2014. The PV of Total Public Sector debt-to-GDP ratio is projected to rise from 9.2 percent in 2009 to 17.4 percent in 2029. The PV of Total Public Sector debt-to-revenue ratio is projected to rise from 58.7 percent in 2009 to 233.7 percent in 2029, which is well within the indicative threshold of 250 percent; whilst for the liquidity indicator, the Total Public Sector Debt service-to-revenue ratio increased from 15.7 percent in 2009 to 27.8 percent in 2015, after which it will remain unsustainable.

Although the LIC-DSF Template provides for a total public debt to GDP threshold of 40 percent for a medium policy performer country like Nigeria, it is recommended that in the case of Nigeria, this threshold is shared between external debt and domestic debt in the ratio of **25 percent** for domestic debt and **15 percent** for external debt, respectively. This is based on the fact that domestic debt constitutes the bulk of the total debt portfolio (82.61 percent) as at the end of 2008, as well as, the country's increasing emphasis on domestic borrowing and the development of the domestic debt market as enshrined in the National Debt Management Framework (NDMF). The recommended threshold covers both States' and Local Governments' total debt.

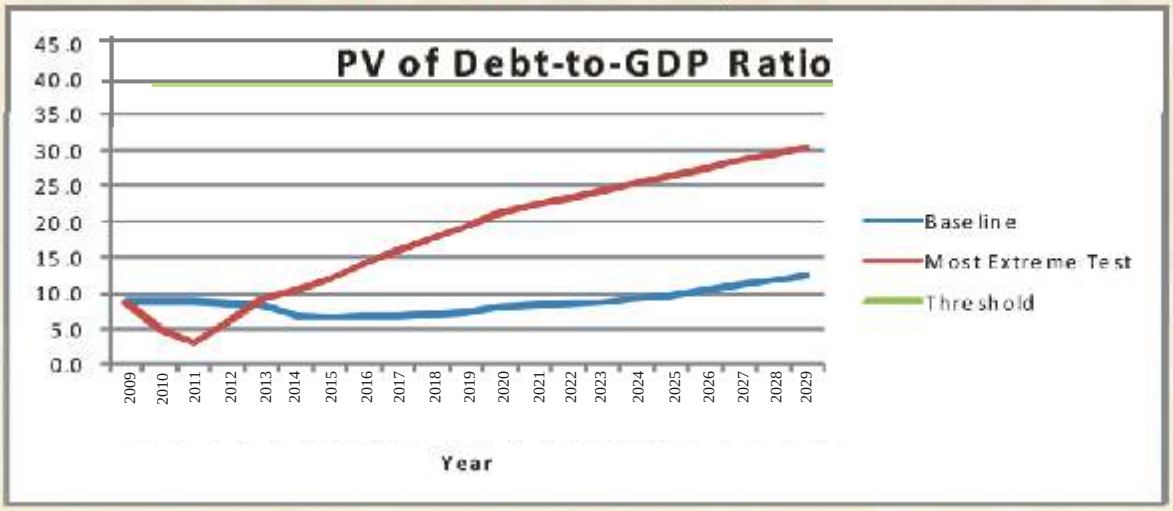
It should be noted that the PV of Total Public debt-to-GDP ratio in the baseline scenario projected at 9.2 percent in 2009 and 17.4 percent in 2029 are well below the indicative threshold of 40 percent. The gap between the projected ratio in 2009 and 2029 is 8.2 percent and it translates to the sum of US$294.6 billion in monetary terms, indicating that given the twenty year projection period, the country has an annual total borrowing limit of US$14.73 billion for all the three tiers of government. In order to meet up with this borrowing threshold, the DSA recommends a funding mix strategy of 40:60 ratio from external and domestic sources, respectively. Following from this, the 2010 total borrowing limit is projected to be in the ratio US$5.89 billion from external and N1,325.7 billion from domestic sources, respectively.

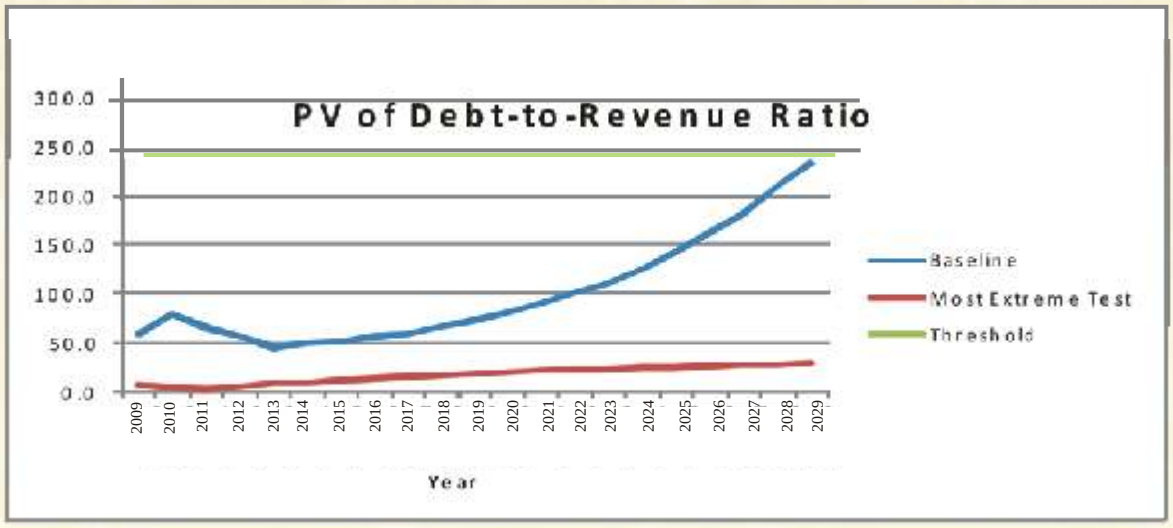
However, it is further recommended that the total borrowing limit for the Federal Government would be considerably lower than the above DSA recommendation.

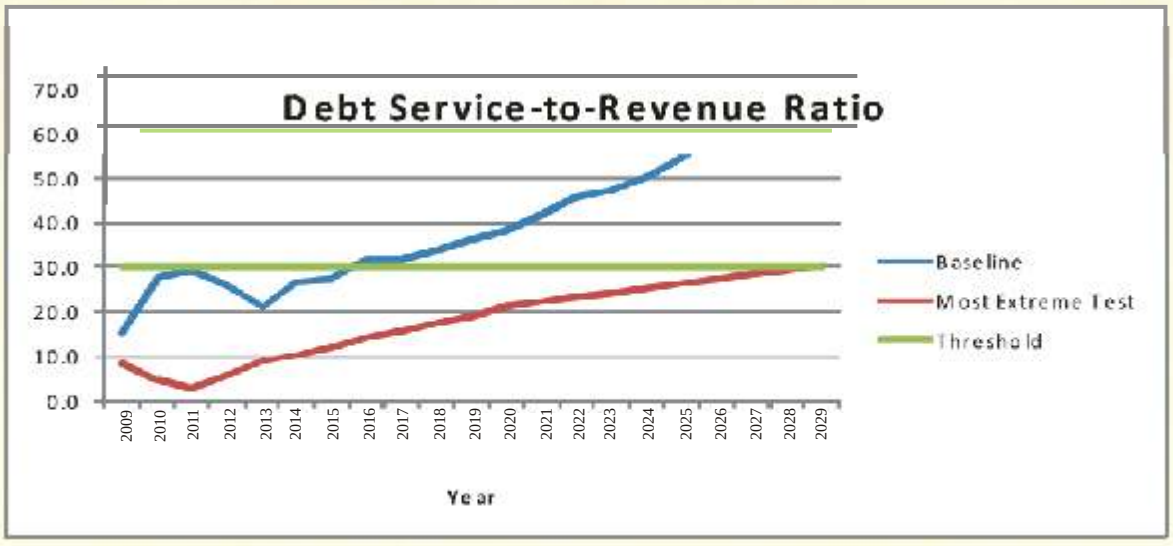
In order to maintain fiscal prudence consistent with the provisions of the Fiscal Responsibility Act (FRA), the DSA recommends a borrowing cap for the Federal Government in the year 2010 at 15 percent of US$5.89 billion (US$883.53 million) from external sources and 30 percent of N1,325.7 billion (N397.71 billion) from domestic sources.

Stress Tests indicate that the PV of total public debt-to-GDP ratio is less sensitive to exchange rate depreciation (Table 4.5). A one-time 30 percent real depreciation of the naira in 2010 would have little effect on PV of public debt. However, a 10 percent of GDP increase in other debt creating flows in 2010 would increase the PV of total public debt-to-GDP ratio to 18.6 percent in the same year. Lastly, the most extreme negative shock would destabilize PV of Total Public Debt-to-Revenue ratio from 58.7 percent in 2009 to 190.3 percent in 2019, and 573.2 percent in 2029 (Figure 4.2).

FIGURE 4.2: NIGERIA: INDICATORS OF PUBLIC DEBT UNDER ALTERNATIVE SCENARIOS, *2009-2029*







4.2 COUNTRY SPECIFIC SCENARIOS

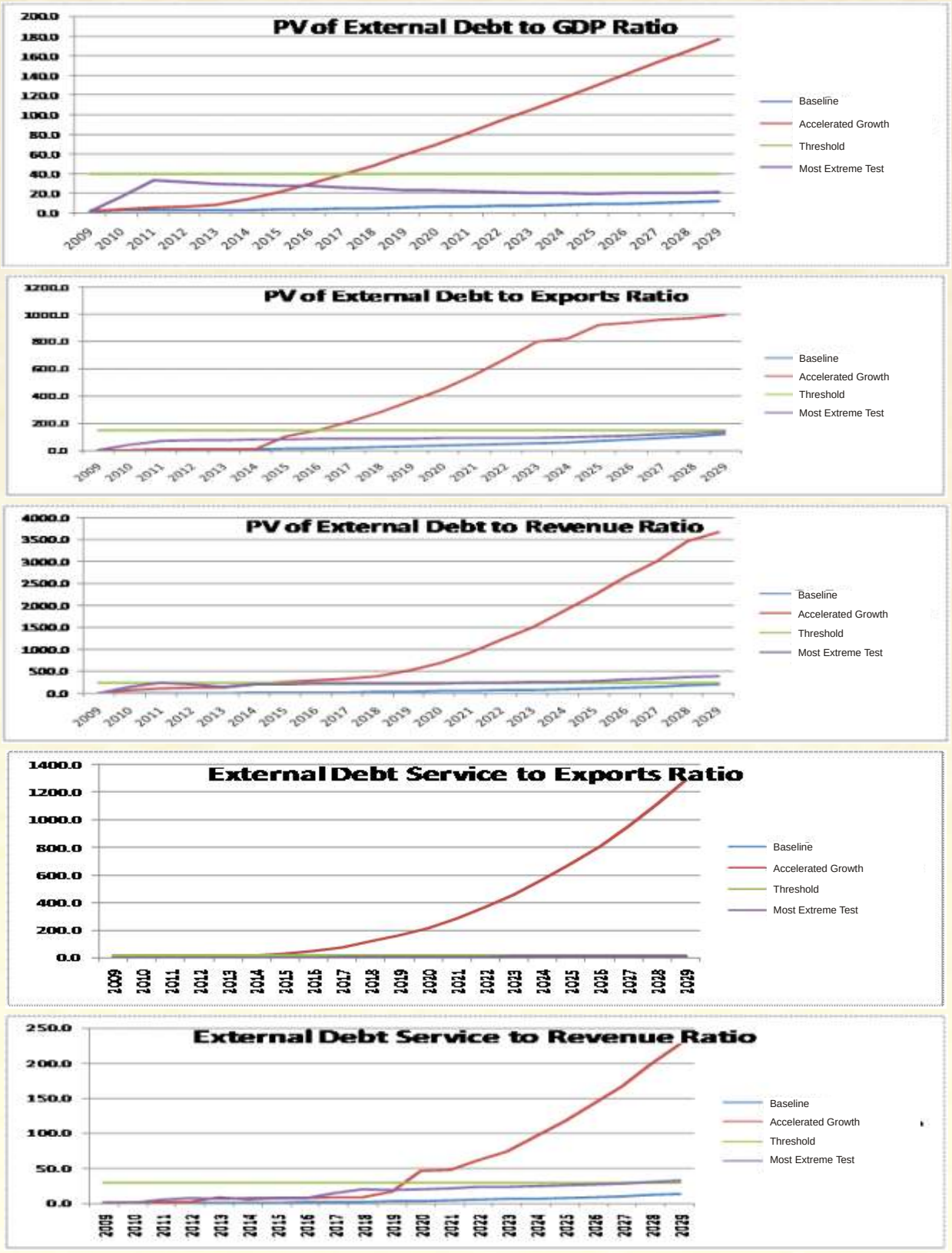
4.2.1 THE OPTIMISTIC SCENARIO (ACCELERATED GROWTH)

The main underlying assumptions (Table 4.6 in the appendix) of this scenario as stated earlier are to simulate financing investments in line with targets sets for the achievement of the 7-Point Agenda and the Vision 20:2020. A critical postulation under this scenario is a change in the borrowing policy from strictly concessional financing to less consessional financing terms. In this regard, there would be increased borrowing (external and domestic in the ratio of 40:60) to finance the envisaged investments needed for the achievement of development targets set in the 7-Point Agenda and the Vision 20:2020.

This scenario assumed average fiscal account deficit of 4.35 percent and current account deficit of 5.69 percent of GDP over the projection period. In the medium term, external debt ratios (Figure 4.3) are projected to be sustainable and thereafter would breach the sustainability thresholds and become unsustainable. Specifically, PV of external debt-to-GDP is projected to rise from 1.6 percent in 2009 to 38.5 percent in 2017 and breach the 40 percent threshold by a wide margin and remains unsustainable thereafter. The PV of external debt-to-exports ratio would increase from 5.0 percent in 2009 to 149.9 percent in 2016 and remain unsustainable thereafter, while the PV of external debt-to-revenue ratio would increase from 10.7 percent in 2009 to 214.2 percent in 2014 and remain unsustainable thereafter. The liquidity indicators also display a similar trend. The external debt service-to-exports ratio would remain sustainable between 2009 and 2014 increasing from 0.5 percent in 2009 to 16.8 percent in 2014 and breaches the sustainability threshold thereafter, while the external debt service-to-revenue ratio would increase from 1.1 percent in 2009 to 16.6 percent in 2019 and thereafter remain unsustainable. The analysis of the solvency and liquidity indicators show that the country's debt would be sustainable in the medium term and unsustainable in the long term. It also highlights the need for an appropriate funding mix in order to maintain debt sustainability.

A comparative analysis of the Accelerated Growth baseline ratios and the stress tests results revealed that Nigeria could experience serious debt sustainability issues if the most extreme shocks are applied. In terms of solvency, the ratios would increase and move towards the threshold under a range of shocks. The most extreme stress tests (B5) shows that the PV of external debt-to-GDP ratio deteriorates from 16.4 percent in 2010 to 20.8 percent in 2029 compared to the baseline ratios of 1.6 percent and 11.5 percent respectively (Figure 4.3).

FIGURE 4.3: NIGERIA: INDICATORS OF PUBLIC AND PUBLICLY GUARANTEED EXTERNAL DEBT UNDER THE ACCELARATED GROWTH SCENARIO, 2009-2029

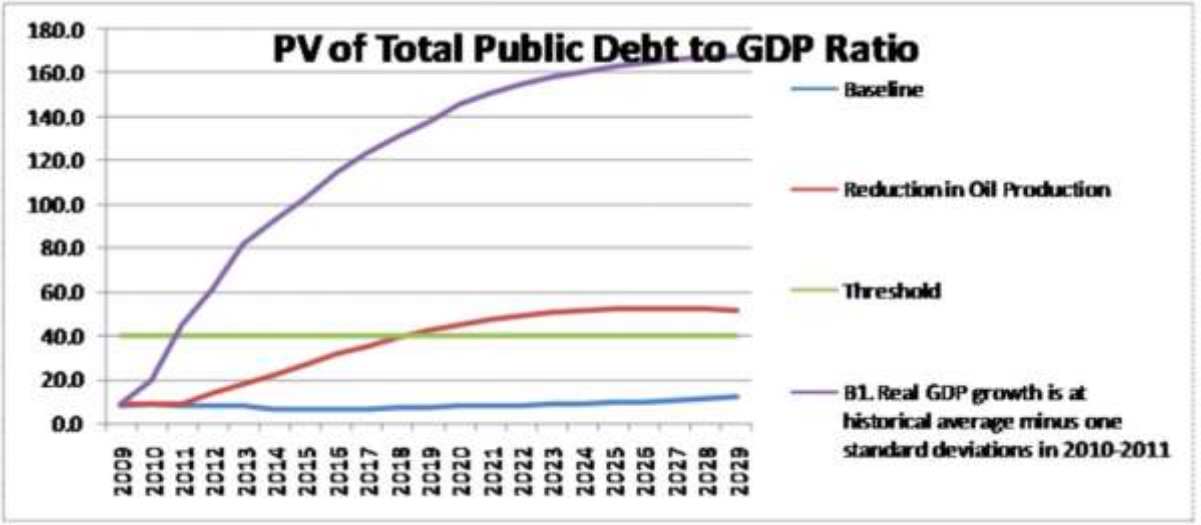


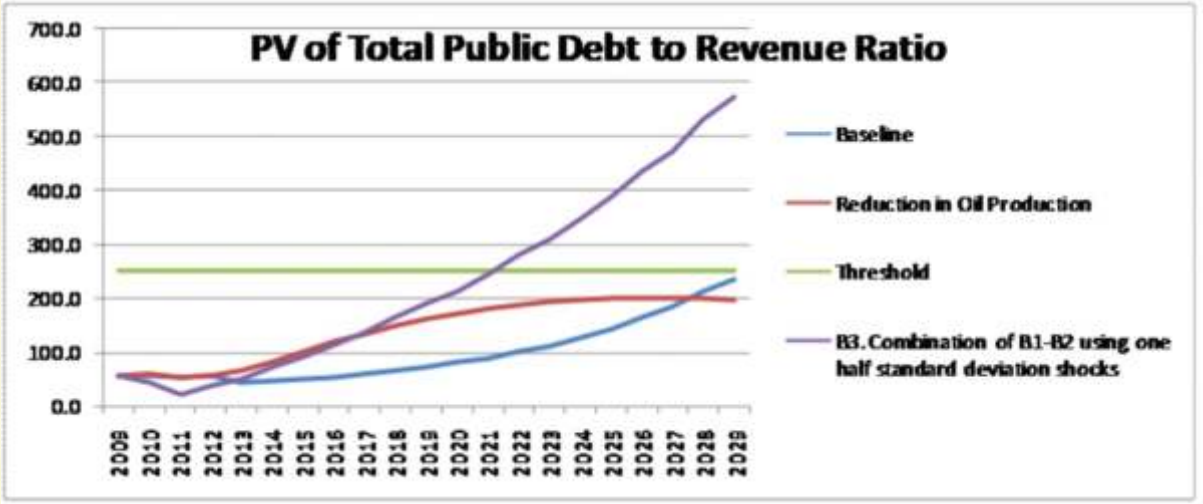
4.2.2 THE PESSIMISTIC SCENARIO (THE REDUCTION IN OIL PRODUCTION AND THE GLOBAL FINANCIAL MELTDOWN SCENARIO)

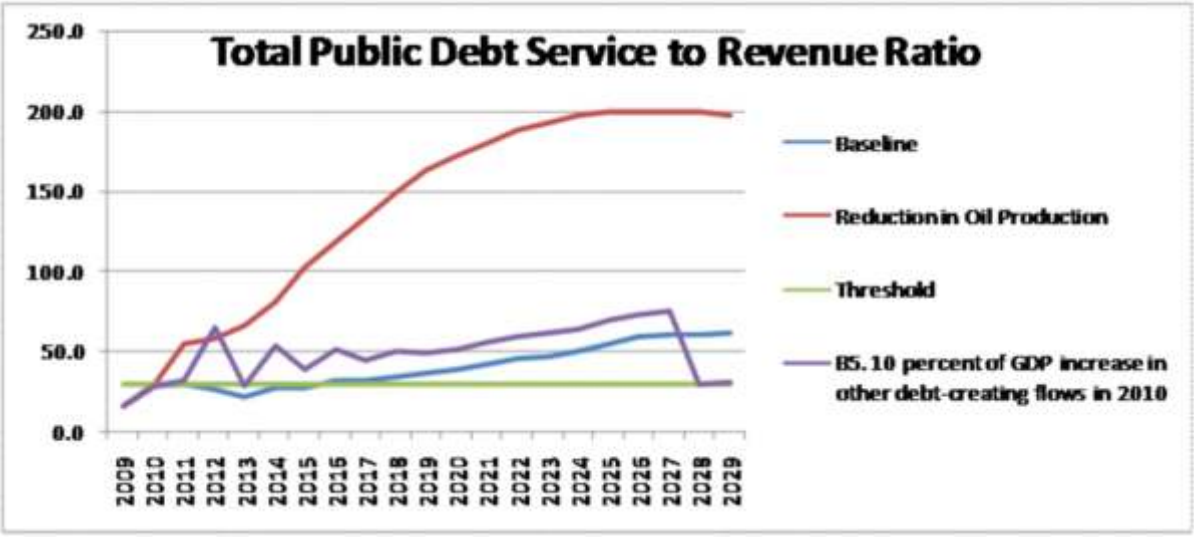
This scenario tests for fiscal sustainability under reduced oil production and its impact on government revenue. The scenario envisaged prolonged global financial crises within the medium term (Table 4.7 in the appendix). Under this scenario, the country's debt ratios are projected to be sustainable in the medium term (Figure 4.4). The PV of Total Public Sector debt-to-GDP ratio would rise from 8.7 percent in 2009 to 39.4 percent in 2018 which is well within the indicative threshold of 40 percent and thereafter breach the sustainability threshold for the remaining projection period. This ratio showed that Nigeria's Total Public Sector debt-to-GDP ratio will be unsustainable from 2019 as a result of the effect of the oil production shock and prolonged global financial meltdown. The PV of Total Public Sector debt-to-revenue ratio is projected to be on an increasing trajectory rising from 60.2 percent in 2010 to 196.9 percent in 2029, whilst the Total Public Sector debt service-to-revenue ratio is projected to rise from 15.6 percent in 2009 to 29.0 percent in 2010 and remain unsustainable thereafter. This implies that the country would experience difficulties in servicing its debts as a result of reductions in oil revenue arising from a fall in oil production. Therefore, the speedy resolution of the Niger Delta issue would contribute to debt sustainability through the successful implementation of the Vision 20:2020 and the 7-Point Agenda.

Stress tests analyses indicate that the PV of Total Public Sector debt-to-GDP ratio is more sensitive to changes in GDP than other stress variables. Real GDP growth at historical average minus one standard deviation in 2010-2011 would increase the PV of Total Public Sector debt-to-GDP from 44.6 percent in 2011 to 167.6 percent in 2029, which are all above the indicative threshold of 40 percent compared to their baseline figures of 8.7 percent and 12.4 percent respectively (Figure 4.4).

FIGURE 4.4: NIGERIA: INDICATORS OF PUBLIC DEBT UNDER THE REDUCTION IN OIL PRODUCTION AND GLOBAL FINANCIAL MELTDOWN SCENARIO, 2009-2029







4.3 SUB-NATIONAL DEBT SUSTAINABILITY ANALYSIS - PROSPECTS FOR THE FUTURE

For completeness, the DMO appreciates the imperative for conducting a DSA for the sub-national entities. However, the dearth of domestic debt data at the State level is currently posing a serious challenge for this exercise.

In order to address this challenge, the DMO has put in place various initiatives to assist the States come up with a reliable domestic debt data. These include, the establishment of States' Debt Management Departments (DMDs), and providing them with technical assistance on capacity building.

In addition, the CBN is currently conducting a survey to collate domestic debt data for the States, including their exposures to Nigerian banks, while there is also an on-going collaborative initiative between the National Planning Commission (NPC) and National Bureau of Statistics (NBS), to assist the States determine their individual GDPs.

It is expected that by the time all these initiatives are concluded, we would be in a position to have a reliable States' debt data that would enable the DSA to be conducted for each State.

CHAPTER FIVE

5.0 RISK ANALYSIS

5.1 INTRODUCTION

The evaluation of debt sustainability from the risk management perspective involves the identification, measurement and assessment of the adverse movement of key portfolio risk indicators over the evolution of the debt profile of a country. The mitigation of these key risk indicators or factors will affect debt sustainability in the short, medium and long term. Therefore, the assessment of the risk factors in a DSA exercise will have an impact on macroeconomic and debt management policy in the medium to long term. The following risk factors have been identified: foreign currency and exchange risk, interest rate risk, refinancing risk, balance of payment risk and commodity risk. This chapter, which is mainly qualitative, assesses the impact of these risk factors on the sustainability of Nigeria's debt.

5.2 FOREIGN CURRENCY AND EXCHANGE RISK

Two components of the currency risk were examined, namely, exchange rate risk (the impact of negative exchange rate trends on debt costs) and convertibility risk (the risk that foreign exchange inflows and reserves will be insufficient to cover debt service needs as a result of inconvertibility of the currency due to depreciation in the value of the local currency).

Nigeria's total debt portfolio consists of 82.61 percent of domestic currency and 17.39 percent of foreign currency as at the end of December, 2008 (Table 2.1). The external debt is mainly dominated by SDR which constitutes 61.35 percent of the total, followed by the US Dollar which constitutes 24.55 percent, the Euro having 10.36 percent and other currencies making up the remainder of 3.73 percent of the total (Table 5.1). The dominance of SDR in the currency composition therefore, reduces to a significant extent the exchange rate risk of the debt portfolio, as only 38.64 percent of the portfolio is held in other currencies.

TABLE 5.1: EXTERNAL DEBT BY CURRENCY COMPOSITION AS AT 31ST DECEMBER, 2008 (US$' MILLION)

S/No	Currency	Debt Stock	Naira Exch Rate	Debt Stock in Naira	US$ Exch Rate to the Naira	USD EQUIV.	Percentage of Total
1	EUR	275,698,902.00	183.51	50,594,553,014.00	131.25	385,482,306.68	10.36%
2	USD	913,458,552.18	131.25	119,891,434,973.00	131.25	913,458,552.18	24.55%
3	JPY	11,491,116.00	1,450.60	16,669,012,797.00	131.25	127,002,002.26	3.41%
4	CHF	10,050,265.00	123.40	1,240,219,759.00	131.25	9,449,293.40	0.25%
5	SDR	1,481,838,176.00	202.15	299,555,190,805.00	131.25	2,282,325,263.28	61.35%
6	NGN*	14,852,608.00	1.00	14,852,608.00	131.25	113,162.73	0.003%
7	KRK	3,174,365.00	104.60	332,038,544.00	131.25	2,529,817.48	0.068%
				TOTAL		3,720,360,400.00	100%

Official CBN Exchange Rate as at 31st December, 2008
*Naira component of an ADB loan

The Nigeria's external reserve position stood at US$53,000,355,063.51 as at 31st December, 2008. The currency composition breakdown of the reserve shows that the US Dollar has the highest contribution of 89.31 percent followed by the Euro with 8.36 percent and the GBP 2.21 percent, while other currencies constitutes 0.12 percent (Table 5.2).

TABLE 5.2:NIGERIA'S EXTERNAL RESERVES CURRENCY COMPOSITION AS AT 31ST DECEMBER, 2008 (US$ EQUIVALENT)

S/N	CURRENCY	AMOUNT	PERCENTAGE
1	US Dollars (US$)	47,335,790,688.31	89.31
2	GB Pounds (GBP)	1,169,703,744.86	2.21
3	Euro (EUR)	4,432,756,058,04	8.36
4	Swiss Franc (CHF)	4,024,573.19	0.01
5	Japanese Yen (JPY)	16,318,208.30	0.03
6	Other Currencies and Holdings	41,761,790.81	0.08
	TOTAL	53,000,355,063.51	100.0

Generally, currency risk is very low in the country's total debt portfolio as a result of the significant share of domestic currency debt in the total debt portfolio and the low level of external debt-to-GDP ratio.

5.3 INTEREST RATE RISK

Interest rate risk is low in the existing total debt portfolio, as the share of floating rate debt in the domestic debt portfolio is only 0.005 percent as at the end of 2008 and it would fully mature in 2013. Nigeria's external commitments as at the end of December, 2008, are also largely fixed interest rate debts constituting about 95 percent. It is worthy to note that all concessional debts are at fixed rates, while some non-concessional debts have floating rates.

5.4 REFINANCING RISK

The main objective of refinancing risk analysis is to optimize the country's debt maturity structure in a way to adequately mitigate the effect of this risk on the debt service costs. Table 5.3 shows the maturity profile of the total debt stock by original maturity. As at 31st December, 2008, the country's domestic debt portfolio comprised 65.81 percent long term instruments and 16.80 percent short term instruments, while the balance of 17.39 percent were long term external debts outstanding. This, therefore, shows a very low level of refinancing risk in the country's total public debt portfolio. Considering that long term instruments have a longer duration (average holding period during which interest rate is fixed), refinancing cost or interest refixing cost for the portfolio is minimal. The weighted average modified duration for the domestic debt portfolio at the end of 2008 was 2.57 years. This means that on the average, debt service cost of the portfolio is assumed to be fixed within 2.57 years.

Table 5.3: TOTAL PUBLIC DEBT OUTSTANDING BY ORIGINAL MATURITY 2004-2008 (US$' MILLION)

Type		2004	2005	2006	2007	2008[1]
External Debt Stock	Short-term[2]	0.00	0.00	0.00	0.00	0.00
	Long-term	35,944.66	20,477.97	3,544.49	3,654.21	3,720.36
	Sub-Total	***35,944.66***	***20,477.97***	***3,544.49***	***3,654.21***	***3,720.36***
Domestic Debt Stock	Short-term[3]	6,560.56	6,626.59	5,472.44	4,922.26	3,595.65
	Long-term	3,754.23	5,202.17	8,332.75	13,653.42	14,082.90
	Sub-Total	***10,314.79***	***11,828.76***	***13,805.19***	***18,575.68***	***17,678.55***
TOTAL		**46,259.45**	**32,306.73**	**17,349.69**	**22,229.89**	**21,398.91**

PERCENTAGE (%) SHARE

Type		2004	2005	2006	2007	2008
External Debt Stock	Short-term	0.00	0.00	0.00	0.00	0.00
	Long-term	77.70	63.39	20.43	16.44	17.39
	Sub-Total	***77.70***	***63.39***	***20.43***	***16.44***	***17.39***
Domestic Debt Stock	Short-term	14.18	20.51	31.54	22.14	16.80
	Long-term	8.12	16.10	48.03	61.42	65.81
	Sub-Total	***22.30***	***36.61***	***79.57***	***83.56***	***82.61***
TOTAL		**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

[1] Official CBN Exchange Rate of N131.25/US$1 for 2008 figures as at 31/12/2008
[2] Short-term external debt is debt with less than 1 year original maturity
[3] Short-term domestic debt consists of 91, 182 and 364 days Treasury Bills. Long-term domestic debt Consists of Treasury Bonds, FGN Bonds and FRN Development Stocks

5.5 BALANCE OF PAYMENT RISK

Balance of payment does not pose a significant risk to debt service in Nigeria's sovereign debt portfolio as the country has been operating current account surplus in the last five years. The ratio of debt service to current account balance for Nigeria in 2008 was 0.83 percent. This shows a relatively strong ability of the government to meet its debt service obligations using current account in the short term. The current account position as at December 31, 2008 was US$56.13 billion.

5.6 COMMODITY PRICE RISK

Commodity prices posed a significant risk in Nigeria's debt portfolio. The country had experienced an oil price shock in 2008 when the crude oil price per barrel which peaked at US$147.27 in July plunged to US$44.36 per barrel at the end of 2008 representing a 67.88 percent reduction. Also, the restiveness in the Niger Delta had contributed to the reduction in crude oil production from 2.21 mbpd at the end of 2007 to 1.90 mbpd at the end of 2008, thus representing a decline of 14.03 percent reduction. The implication of both the fall in the price of the crude oil and the reduction in crude oil production is reduced foreign exchange earnings which constitutes a significant risk to debt service as a result of insufficient foreign exchange inflows. This risk is however mitigated given the country's relatively robust external reserves which stood at US$53.0 billion as at end-December, 2008.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

Nigeria's exit from both the Paris Club and London Club debts has considerably reduced the level of its level debt burden. The emphasis on domestic debt borrowing and the current policy of mainly concessional external borrowing would further ensure debt sustainability over a long period of time. The outcome of the 2009 DSA has further confirmed the sustainability of Nigeria's external debt, as well as of its total public debt. Under the baseline scenario, as a medium-policy performer, Nigeria has an external debt-to-GDP ratio of 1.6 percent in 2009, relative to 2.5 percent in 2008, and it will remain sustainable over the next 20 years. Similarly, under the baseline scenario, the total public debt (external and domestic) debt-to-GDP ratio is projected at 8.7 percent in 2009, compared to 9.5 percent in 2008, and the ratio is projected to remain below the indicative 40 percent threshold throughout the projection period. The liquidity indicators under the baseline scenario also showed that Nigeria will not experience debt service challenges over the next 20 years.

However, Nigeria's debt dynamics changed when a number of 'shocks' under the alternative and country-specific scenarios were introduced in the country's debt portfolio. The result of the DSA showed that massive injection of externally borrowed funds from the less concessional sources to finance the implementation of programs under the Vision 20:2020 and the 7-Point Agenda would in the long run pose serious debt sustainability challenges for the country.

Although, the level of domestic debt stock and service obligations have been increasing over the last 5 years, accounting for the high level of the public debt-to-GDP ratio which is an indicator of a country's solvency rating, excessive reliance on the domestic debt market to fund the programs under the reform agenda would also lead to total public debt unsustainability in the long term. While the market may lack the absorptive capacity to raise these massive investment funds, it would also, overtime, crowd out competition (corporate and sub-national bonds).

It was evident that Nigeria's economy is vulnerable to oil production shocks arising from the Niger Delta insecurity and global meltdown. The DSA outcome showed that a reduction in oil production and prolonged global financial meltdown would make Nigeria experience difficulties in servicing its debts, as a result of falling oil revenues.

The imperative for extending the coverage of the national DSA, to include States' debts cannot be over-emphasized. It is expected that once the reliability of the States' domestic debt data is assured, and their GDPs determined, it would then be possible to conduct the DSA for each State.

In order to maintain debt sustainability, it is recommended as follows:

i. There should be an appropriate funding mix at the ratio of 40 percent external financing and 60 percent domestic financing for the programmes under the Vision 20:2020 and the 7-Point Agenda,

while caution should be exercised in accessing less concessional external funds.

ii. Alternative/additional funding sources, such as Joint Ventures and Public-Private-Partnerships (PPPs) should be vigorously pursued.

iii. Introduction of appropriate measures for the speedy recovery of the economy such as massive investment and modernization of agriculture, investment in critical infrastructure (power and energy) and improving the efficiency of revenue generating agencies.

iv. Early global economic recovery would further positively impact on the country's debt sustainability position.

v. The speedy resolution of the Niger Delta issue would contribute to debt sustainability through the successful implementation of the Vision 20:2020 and the 7-Point Agenda.

vi. States should endeavor to imbibe the culture of fiscal prudence, develop sub-national debt management capabilities and guard against incurring frivolous debts which are not in accordance with the Fiscal Responsibility Act (FRA) and the National Debt Management Framework (NDMF).

vii. Vigorously pursue and encourage the enactment of Fiscal Responsibility legislations in the States, and support DMO's efforts to develop debt management institutions and build capacity in the States. In this regard, it is encouraging to note that the Fiscal Responsibility Commission which is responsible for monitoring and enforcing best practices in public finance management has been inaugurated and started operations.

viii. Although the baseline scenario analysis revealed that the country's total debt will remain sustainable in the medium to long term, consistent with medium term sustainability and the country's economic conditions, there should be prudent borrowing well below the recommended threshold of 40 percent of total debt to GDP ratio in line with international best practice. Based on the recommended threshold, the borrowing limit for all the three tiers of government for the year 2010 would be in the ratio of US$5.89 billion from external and N1,325.7 billion from domestic sources respectively. However, it is further recommended that the total borrowing limit for the Federal Government would be considerably lower than the above DSA recommendation. Thus, in order to maintain fiscal prudence consistent with the provisions of the FRA, the DSA recommends a borrowing cap for the Federal Government in the year 2010 at 15 percent of US$5.89 billion (US$883.53 million) from external sources and 30 percent of N1,325.7 billion (N397.71 billion) from domestic sources.

APPENDIX:

TABLE 4.2: NIGERIA: EXTERNAL DEBT SUSTAINABILITY FRAMEWORK, BASELINE SCENARIO, 2006-2029 1/ (IN PERCENT OF GDP, UNLESS OTHERWISE INDICATED)

	Actual			Historical 0 Average	Historical 0 Standard Deviation	Projections									
	2006	2007	2008			2009	2010	2011	2012	2013	2014	2009-2014 Average	2019	2029	2015-2029 Average
External debt (nominal) 1/	2.1	2.2	2.0			2.7	3.5	4.0	4.4	4.6	4.9		7.7	16.5	
o/w public and publicly guaranteed (PPG)	1.4	1.3	1.4			2.1	3.0	3.5	3.9	4.2	4.6		7.5	16.4	
Change in external debt	-8.8	0.1	-0.2			0.8	0.8	0.5	0.3	0.2	0.3		0.6	1.2	
Identified net debt-creating flows	-16.9	-10.5	-21.1			13.0	4.7	0.9	1.7	3.5	3.8		18.0	57.4	
Non-interest current account deficit	-13.3	-8.9	-19.1	-8.8	5.4	17.1	11.7	6.0	5.6	6.3	5.7		17.3	55.3	35.3
Deficit in balance of goods and services	-10.7	-7.9	-7.4			-5.5	14.2	16.6	18.8	20.8	22.8		33.1	55.6	
Exports	24.1	25.8	28.2			31.7	30.3	28.0	25.8	23.8	22.0		16.1	9.4	
Imports	13.4	17.9	20.8			26.2	44.5	44.5	44.6	44.7	44.8		49.2	65.0	
Net current transfers (negative = inflow)	-2.9	-7.0	-11.5	-3.7	3.2	-13.0	-12.4	-11.4	-10.6	-9.8	-9.0		-6.5	-3.5	-5.6
o/w official	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other current account flows (negative = net inflow)	0.3	6.0	-0.2			35.6	9.9	0.8	-2.6	-4.8	-8.0		-9.3	3.2	
Net FDI (negative = inflow)	-2.1	-2.2	-2.0	-2.2	1.2	-4.4	-7.2	-5.2	-4.0	-2.8	-1.9		0.9	2.6	1.5
Endogenous debt dynamics 2/	-1.5	0.6	0.0			0.3	0.2	0.1	0.0	0.0	0.0		-0.2	-0.5	
Contribution from nominal interest rate	0.5	0.7	0.3			0.4	0.3	0.3	0.3	0.3	0.3		0.3	0.4	
Contribution from real GDP growth	-0.5	-0.1	-0.1			-0.1	-0.2	-0.2	-0.3	-0.3	-0.3		-0.4	-0.9	
Contribution from price and exchange rate changes	-1.5	0.0	-0.2			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	8.1	10.6	20.9			-12.2	-3.9	-0.4	-1.4	-3.2	-3.5		-17.4	-56.2	
o/w exceptional financing	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	..	..	1.7			2.2	2.7	2.9	3.1	3.1	3.3		5.3	11.6	
In percent of exports	..	..	5.9			6.9	8.8	10.4	11.9	13.1	14.9		32.6	123.3	
PV of PPG external debt	..	..	1.1			1.6	2.1	2.4	2.6	2.7	2.9		5.0	11.5	
In percent of exports	..	..	3.9			5.0	6.9	8.6	10.1	11.4	13.2		31.2	122.3	
In percent of government revenues	..	..	7.3			10.7	19.1	18.2	17.9	14.9	20.5		49.6	216.1	
Debt service-to-exports ratio (in percent)	5.4	4.3	1.5			1.6	1.5	1.6	1.7	1.8	1.9		2.6	8.3	
PPG debt service-to-exports ratio (in percent)	4.9	3.6	0.7			0.5	0.5	0.6	0.7	0.9	0.9		1.8	7.8	
PPG debt service-to-revenue ratio (in percent)	10.5	7.0	1.4			1.1	1.3	1.2	1.3	1.1	1.5		2.9	13.8	
Total gross financing need (Billions of U.S. dollars)	-32.9	-24.3	-59.8			36.7	15.4	4.8	8.5	16.7	20.2		136.7	1078.6	
Non-interest current account deficit that stabilizes debt ratio	-4.5	-9.0	-18.9			16.3	10.9	5.5	5.3	6.0	5.4		16.7	54.1	
Key macroeconomic assumptions															
Real GDP growth (in percent)	6.0	6.4	6.4	26.0	55.5	5.2	7.0	7.0	7.0	6.5	6.8	6.6	7.0	6.5	6.7
GDP deflator in US dollar terms (change in percent)	16.4	0.4	7.9	9.4	35.9	-13.0	0.7	4.2	4.2	4.7	4.4	0.9	3.3	3.3	2.9
Effective interest rate (percent) 5/	6.2	35.9	16.6	7.4	11.9	19.5	13.2	10.1	8.4	7.3	6.4	10.8	4.1	3.0	3.8
Growth of exports of G&S (US dollar terms, in percent)	53.9	14.4	25.5	22.4	31.4	2.9	2.9	2.9	2.9	3.0	3.0	2.9	3.5	4.0	3.7
Growth of imports of G&S (US dollar terms, in percent)	55.2	43.1	33.3	19.7	23.3	15.1	82.9	11.6	11.6	11.8	11.8	24.1	12.3	12.8	12.6
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	34.5	27.1	29.7	30.6	36.8	33.8	32.1	23.9	29.0	26.5
Government revenues (excluding grants, in percent of GDP)	11.2	13.2	15.0			14.8	11.0	13.2	14.6	18.3	14.2		10.1	5.3	8.7
Aid flows (in Billions of US dollars) 7/	2.2	2.6	2.9			1.6	1.9	1.9	2.0	2.3	2.8		4.8	24.9	
o/w Grants	0.1	0.1	0.1			0.0	0.0	0.0	0.0	0.1	0.0		0.0	0.1	
o/w Concessional loans	2.1	2.5	2.9			1.6	1.9	1.9	1.9	2.3	2.8		4.8	24.8	
Grant-equivalent financing (in percent of GDP) 8/	..	..	..			0.4	0.4	0.4	0.3	0.4	0.4		0.4	0.9	0.6
Grant-equivalent financing (in percent of external financing) 8/	..	..	..			35.3	27.8	30.4	31.4	37.7	34.4		24.2	29.1	26.7
Memorandum items:															
Nominal GDP (Billions of US dollars)	242.2	258.8	297.1			271.7	292.8	326.5	364.0	405.9	452.6		728.1	1837.7	
Nominal dollar GDP growth	23.4	6.9	14.8			-8.6	7.8	11.5	11.5	11.5	11.5	7.5	10.5	10.0	9.8
PV of PPG external debt (in Billions of US dollars)			3.3			4.3	6.2	7.9	9.5	11.0	13.2		36.6	211.2	
(PVt-PVt-1)/GDPt-1 (in percent)						0.3	0.7	0.6	0.5	0.4	0.5	0.5	1.1	2.0	1.2

1/ Includes both public and private sector external debt.

2/ Derived as [r - g - r(1+g)]/(1+g+r+gr) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and r = growth rate of GDP deflator in U.S. dollar terms.

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets, and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

4/ Assumes that PV of private sector debt is equivalent to its face value.

5/ Current-year interest payments divided by previous period debt stock.

6/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

7/ Defined as grants, concessional loans, and debt relief.

8/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

TABLE 4.3: NIGERIA: PUBLIC SECTOR DEBT SUSTAINABILITY FRAMEWORK, BASELINE SCENARIO, 2006-2029 (IN PERCENT OF GDP, UNLESS OTHERWISE INDICATED)

	Actual					Estimate	Projections							
	2006	2007	2008	Average	Standard Deviation	2009	2010	2011	2012	2013	2014	2009-14 Average	2019	2029	2015-29 Average
Public sector debt 1/	7.1	8.0	8.0			9.2	9.7	9.8	9.7	9.7	8.6		9.9	17.4	
o/w foreign-currency denominated	1.4	1.3	1.4			2.1	3.0	3.5	3.9	4.2	4.6		7.5	16.4	
Change in public sector debt	-9.3	0.9	0.0			1.2	0.5	0.1	-0.1	0.0	-1.1		0.4	1.1	
Identified debt-creating flows	-1.2	2.1	4.5			3.9	4.6	3.1	2.7	1.7	0.3		3.2	1.1	
Primary deficit	-0.3	0.7	2.9	-3.8	4.5	2.5	2.9	0.9	0.3	-0.9	-1.0	0.8	0.8	2.1	0.6
Revenue and grants	11.3	13.2	15.0			14.8	11.0	13.2	14.6	18.3	14.2		10.1	5.3	
of which: grants	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Primary (noninterest) expenditure	11.0	13.9	17.9			17.3	13.9	14.1	14.9	17.4	13.2		11.0	7.5	
Automatic debt dynamics	-0.9	1.4	1.7			1.5	1.6	2.2	2.4	2.6	1.4		2.4	-1.1	
Contribution from interest rate/growth differential	0.3	1.5	1.6			1.3	1.6	2.3	2.5	2.7	1.4		2.4	-0.9	
of which: contribution from average real interest rate	1.2	1.9	2.1			1.7	2.2	2.9	3.1	3.3	2.1		3.1	0.1	
of which: contribution from real GDP growth	-0.9	-0.4	-0.5			-0.4	-0.6	-0.6	-0.6	-0.6	-0.6		-0.6	-1.0	
Contribution from real exchange rate depreciation	-1.1	-0.1	0.1			0.1	0.0	-0.1	-0.1	-0.1	-0.1		..	..	
Other identified debt-creating flows	0.0	0.0	-0.1			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	-0.1			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Debt relief (HIPC and other)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	-8.1	-1.2	-4.6			-2.7	-4.1	-3.0	-2.8	-1.6	-1.4		-2.8	0.0	
Other Sustainability Indicators															
PV of public sector debt	5.7	6.7	7.8			8.7	8.8	8.7	8.4	8.3	7.0		7.4	12.4	
o/w foreign-currency denominated	0.0	0.0	1.2			1.6	2.1	2.4	2.6	2.7	2.9		5.0	11.5	
o/w external	..	..	1.2			1.6	2.1	2.4	2.6	2.7	2.9		5.0	11.5	
PV of contingent liabilities (not included in public sector debt)	..	..	..			..	..	..	..	..	..		..	..	
Gross financing need 2/	6.1	6.2	7.9			6.7	7.8	6.3	5.7	4.5	4.0		5.2	3.2	
PV of public sector debt-to-revenue and grants ratio (in percent)	50.5	50.9	52.2			58.7	80.5	65.5	57.7	45.1	49.2		73.5	233.7	
PV of public sector debt-to-revenue ratio (in percent)	50.7	51.0	52.3			58.7	80.5	65.6	57.7	45.2	49.2		73.5	234.0	
o/w external 3/	..	..	8.2			10.7	19.1	18.2	17.9	14.9	20.5		49.6	216.1	
Debt service-to-revenue and grants ratio (in percent) 4/	31.5	23.8	19.8			15.6	28.1	29.4	26.4	21.4	26.8		36.4	15.5	
Debt service-to-revenue ratio (in percent) 4/	31.6	23.8	19.8			15.7	28.2	29.5	26.4	21.4	26.9		36.4	15.6	
Primary deficit that stabilizes the debt-to-GDP ratio	9.0	-0.2	2.9			1.2	2.5	0.8	0.4	-1.0	0.1		0.4	1.1	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	6.0	6.4	6.4	26.0	55.5	5.2	7.0	7.0	7.0	6.5	6.8	6.6	7.0	6.5	6.7
Average nominal interest rate on forex debt (in percent)	5.8	32.1	8.7	6.0	10.2	6.1	3.5	3.2	3.0	2.9	2.7	3.6	2.6	2.7	2.7
Average real interest rate on domestic debt (in percent)	16.3	29.1	31.3	60.7	85.1	27.3	33.1	45.3	53.1	59.4	39.3	42.9	121.2	0.2	134.8
Real exchange rate depreciation (in percent, + indicates depreciation)	-11.4	-3.7	10.2	-9.5	18.4	8.7	1.2	-2.2	-2.2	-2.7	-2.4	0.1	-1.7	-1.8	-1.8
Inflation rate (GDP deflator, in percent)	14.2	-1.8	1.9	11.8	36.7	-2.4	-0.3	1.4	1.9	-1.1	27.3	4.5	3.3	3.3	3.6
Growth of real primary spending (deflated by GDP deflator, in percent)	0.0	0.4	0.4	0.1	0.2	0.0	-0.1	0.1	0.1	0.2	-0.2	0.0	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	..	..	..	..	..	34.5	27.1	29.7	30.6	36.8	33.8	32.1	23.9	29.0	..

1/ [Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net or gross debt is used.]

2/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.

3/ Revenues excluding grants.

4/ Debt service is defined as the sum of interest and amortization of medium and long-term debt.

5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

TABLE 4.4: NIGERIA: SENSITIVITY ANALYSIS FOR KEY INDICATORS OF PUBLIC AND PUBLICLY GUARANTEED EXTERNAL DEBT, 2009 - 2029 (IN PERCENT)

	Projections																				
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
PV of debt-to GDP ratio																					
Baseline	2	2	2	3	3	3	3	4	4	4	5	6	6	7	7	8	8	9	10	11	11
A. Alternative Scenarios																					
A1. Key variables at their historical averages in 2009-2029 1/	2	-10	-16	-21	-26	-30	-34	-37	-39	-43	-53	-69	-85	-103	-120	-137	-153	-168	-181	-194	-196
A2. New public sector loans on less favorable terms in 2009-2029 2	2	3	3	4	4	5	6	6	7	8	9	11	11	12	13	14	16	17	18	20	21
B. Bound Tests																					
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	2	3	5	6	6	7	7	8	9	10	11	13	14	15	16	18	19	21	23	24	26
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	2	5	9	9	9	9	8	9	9	9	9	9	9	9	9	10	10	11	11	12	12
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	2	5	5	5	5	6	6	7	8	9	10	11	12	13	14	15	16	18	19	21	22
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	2	16	27	25	24	23	22	22	20	19	18	17	17	16	15	15	14	14	14	14	13
B5. Combination of B1-B4 using one-half standard deviation shocks	2	16	33	32	30	28	27	27	26	24	23	23	22	21	20	20	20	20	20	20	21
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	2	3	3	4	4	4	4	5	6	6	7	8	9	9	10	11	12	13	14	15	16
PV of debt-to-exports ratio																					
Baseline	5	7	9	10	11	13	15	18	22	26	34	37	42	48	54	62	71	82	94	108	122
A. Alternative Scenarios																					
A1. Key variables at their historical averages in 2009-2029 1/	5	-32	-56	-81	-110	-138	-167	-188	-213	-259	-332	-440	-580	-740	-915	-1104	-1303	-1511	-1726	-1948	-2083
A2. New public sector loans on less favorable terms in 2009-2029 2	5	9	12	16	19	23	27	33	40	48	57	68	78	89	101	116	132	151	173	197	223
B. Bound Tests																					
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	5	7	8	10	11	13	15	18	21	26	33	37	42	47	54	61	71	81	94	107	122
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	5	18	43	46	47	50	55	57	61	65	78	76	80	85	92	100	110	122	136	151	168
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	5	7	8	10	11	13	15	18	21	26	33	37	42	47	54	61	71	81	94	107	122
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	5	52	95	98	100	103	106	110	111	111	111	112	112	113	114	117	122	128	135	144	154
B5. Combination of B1-B4 using one-half standard deviation shocks	5	44	74	76	78	81	84	87	89	89	90	92	93	94	96	100	105	111	119	128	138
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	5	7	9	10	11	13	15	18	21	26	33	37	42	47	54	61	71	81	94	107	122
PV of debt-to-revenue ratio																					
Baseline	11	19	18	18	15	21	24	29	34	42	50	59	68	80	90	103	123	144	164	192	216
A. Alternative Scenarios																					
A1. Key variables at their historical averages in 2009-2029 1/	11	-89	-138	-163	-143	-214	-264	-301	-336	-406	-528	-694	-859	-1236	-1519	-1878	-2253	-2665	-3010	-3478	-3682
A2. New public sector loans on less favorable terms in 2009-2029 2	11	24	26	28	28	35	43	53	63	77	90	107	126	148	168	197	228	267	301	351	394
B. Bound Tests																					
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	11	29	41	40	33	46	55	66	78	96	113	133	155	181	205	240	281	336	376	440	496
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	11	43	72	62	48	61	66	72	76	83	87	93	101	111	119	133	149	168	185	211	233
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	11	26	35	34	28	39	46	56	66	81	95	112	131	153	173	203	238	279	318	372	419
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	11	144	201	171	130	159	167	175	176	179	177	177	182	188	190	199	211	225	236	257	273
B5. Combination of B1-B4 using one-half standard deviation shocks	11	150	251	217	163	201	211	223	224	231	229	232	240	251	256	272	298	314	332	366	391
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	11	27	25	25	21	29	34	41	48	59	70	82	96	112	127	149	174	205	233	270	307

Table 3b Nigeria: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2009-2029 (continued)
(In percent)

Debt service-to-exports ratio																					
Baseline	1	0	1	1	1	1	1	1	1	2	2	2	3	3	4	4	5	5	6	7	8
A. Alternative Scenarios																					
A1. Key variables at their historical averages in 2009-2029 1/	1	0	-1	-1	-2	-3	-3	-4	-5	-6	-7	-10	-13	-17	-21	-26	-31	-37	-44	-51	-59
A2. New public sector loans on less favorable terms in 2009-2029 2	1	0	1	1	1	1	1	2	2	2	3	3	4	5	6	7	8	9	11	13	14
B. Bound Tests																					
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	1	0	1	1	1	1	1	1	1	1	2	2	3	3	4	4	5	5	6	7	8
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	1	1	1	2	2	2	3	3	3	5	6	7	7	8	8	8	9	10	11	12	
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	1	0	1	1	1	1	1	1	1	1	2	2	3	3	4	4	5	5	6	7	8
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	1	0	2	4	4	4	4	4	7	10	10	10	11	11	11	11	12	12	13	13	
B5. Combination of B1-B4 using one-half standard deviation shocks	1	0	2	3	3	3	3	3	6	8	8	8	8	9	9	9	9	10	10	11	12
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	1	0	1	1	1	1	1	1	1	1	2	2	3	3	4	4	5	5	6	7	8
Debt service-to-revenue ratio																					
Baseline	1	1	1	1	1	1	2	2	2	2	3	4	5	6	6	7	8	9	10	12	14
A. Alternative Scenarios																					
A1. Key variables at their historical averages in 2009-2029 1/	1	1	-1	-2	-3	-4	-5	-6	-8	-10	-12	-15	-21	-28	-33	-44	-54	-66	-77	-91	-103
A2. New public sector loans on less favorable terms in 2009-2029 2	1	1	1	1	1	1	2	3	3	4	5	5	6	8	10	12	14	17	19	23	26
B. Bound Tests																					
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	1	2	3	3	3	3	4	4	5	6	7	8	11	13	15	17	19	21	25	28	31
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	1	1	2	3	2	3	3	3	4	6	7	7	8	9	10	11	11	12	13	15	17
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	1	2	2	2	2	3	3	4	4	5	6	7	9	11	12	14	16	18	20	23	27
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	1	1	4	6	5	6	6	6	11	16	15	16	17	18	18	19	19	20	21	22	24
B5. Combination of B1-B4 using one-half standard deviation shocks	1	2	6	8	6	8	8	8	14	20	20	20	22	25	24	25	26	27	28	31	33
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	1	2	2	2	2	2	2	3	3	3	4	5	7	8	9	10	12	13	14	17	19
Memorandum item:																					
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline, while grace and maturity periods are the same as in the baseline.
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).
4/ Includes official and private transfers and FDI.
5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.
6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

TABLE 4.5: NIGERIA: SENSITIVITY ANALYSIS FOR KEY INDICATORS OF PUBLIC DEBT, 2009-2029

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029
PV of Debt-to-GDP Ratio								
Baseline	9	9	9	8	8	7	7	12
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	9	1	-3	-6	-8	-10	-16	-18
A2. Primary balance is unchanged from 2009	9	8	10	12	15	16	22	34
A3. Permanently lower GDP growth 1/	9	11	16	24	37	50	182	989
Reduction in Oil Production	9	3	-1	-5	-7	-9	-22	-23
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	9	19	45	61	81	92	138	168
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	9	7	7	6	6	5	6	12
B3. Combination of B1-B2 using one half standard deviation shocks	9	5	3	6	9	10	19	31
B4. One-time 30 percent real depreciation in 2010	9	9	9	9	8	7	7	12
B5. 10 percent of GDP increase in other debt-creating flows in 2010	9	19	18	17	16	14	13	16
PV of Debt-to-Revenue Ratio 2/								
Baseline	59	80	66	58	45	49	73	234
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	59	12	-23	-42	-43	-69	-153	-335
A2. Primary balance is unchanged from 2009	59	76	74	79	79	114	221	645
A3. Permanently lower GDP growth 1/	59	104	122	164	205	352	1788	18325
Reduction in Oil Production	59	12	-5	-19	-26	-33	-82	-88
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	59	172	337	418	444	650	1356	3142
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	59	61	49	44	35	37	60	217
B3. Combination of B1-B2 using one half standard deviation shocks	59	46	23	40	50	72	190	573
B4. One-time 30 percent real depreciation in 2010	59	85	68	59	45	50	70	222
B5. 10 percent of GDP increase in other debt-creating flows in 2010	59	170	135	116	89	102	128	293
Debt Service-to-Revenue Ratio 2/								
Baseline	16	28	29	26	21	27	36	16
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	16	24	20	-2	-1	-17	-30	-76
A2. Primary balance is unchanged from 2009	16	28	29	25	26	42	77	138
A3. Permanently lower GDP growth 1/	16	32	38	46	51	117	513	4119
Reduction in Oil Production	16	11	13	13	13	15	15	4
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	16	43	69	97	107	222	394	687
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	16	28	29	18	20	21	33	12
B3. Combination of B1-B2 using one half standard deviation shocks	16	31	34	11	14	30	71	94
B4. One-time 30 percent real depreciation in 2010	16	28	30	27	22	28	39	31
B5. 10 percent of GDP increase in other debt-creating flows in 2010	16	28	31	65	28	54	49	30

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.

TABLE 4.6: NIGERIA: COUNTRY-SPECIFIC (ACCELERATED GROWTH) EXTERNAL DEBT SUSTAINABILITY FRAME WORK, BASELINE SCENARIO, 2006-2029

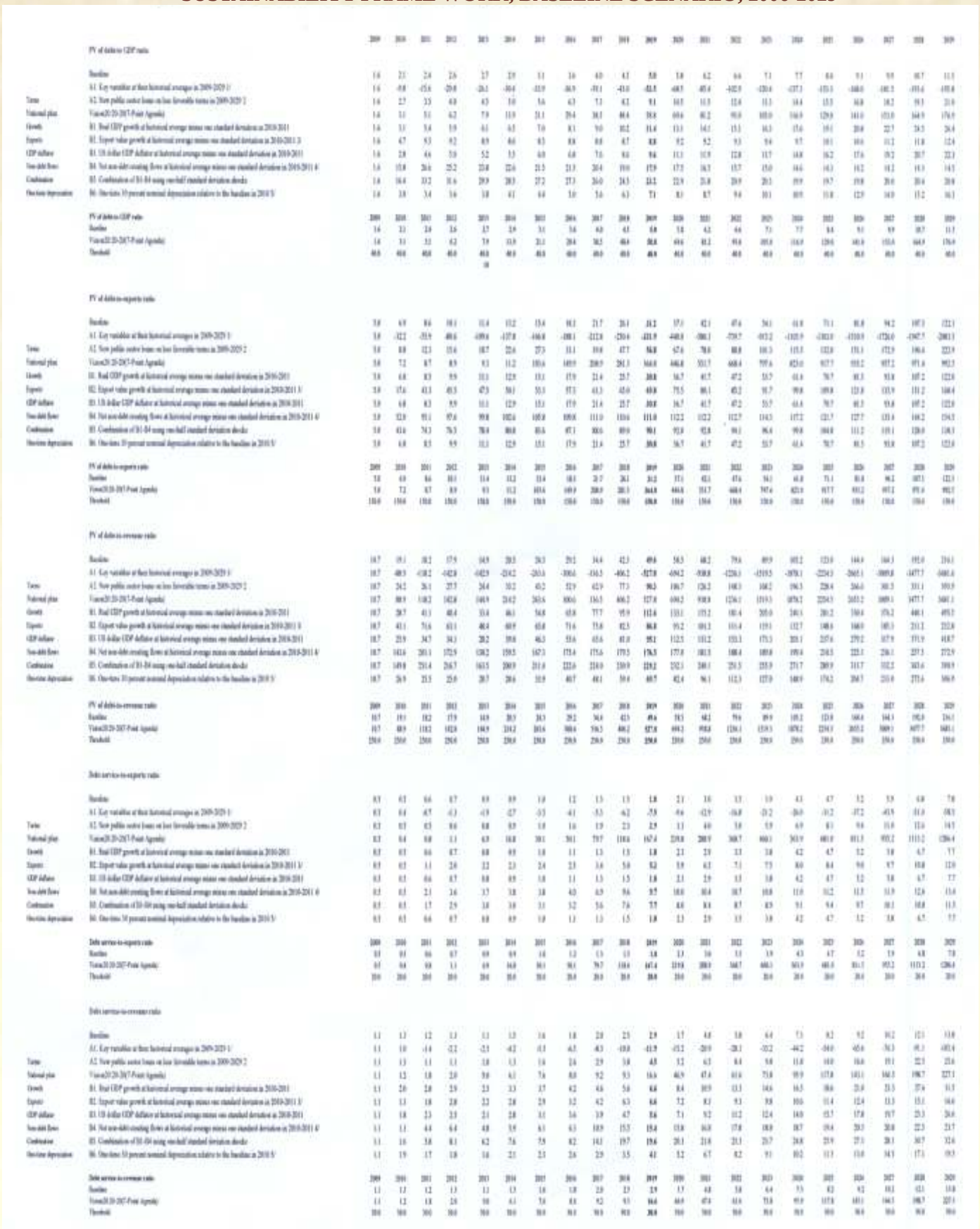


TABLE 4.7: NIGERIA: COUNTRY-SPECIFIC (REDUCTION OIL PRODUCTION AND THE GLOBAL FINANCIAL MELTDOWN) TOTAL PUBLIC DEBT SUSTAINABILITY FRAMEWORK, BASELINE SCENARIO, 2009 - 2029 (IN PERCENT OF GDP, UNLESS OTHERWISE INDICATED)

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	PV of Debt-to-GDP Ratio																					
	Baseline	8.7	9.0	8.7	8.4	8.3	7.8	6.6	6.8	6.9	7.2	7.4	8.0	8.2	8.4	8.8	9.2	9.7	10.3	11.0	11.7	12.4
	A1. Real GDP growth and primary balance are at historical averages	8.7	1.4	-5.0	-6.1	-7.9	-9.8	-11.6	-12.9	-13.9	-14.9	-15.5	-16.1	-16.5	-16.8	-17.0	-17.2	-17.3	-17.4	-17.5	-17.7	-17.8
Fix Primary Balance	A2. Primary balance is unchanged from 2009	8.7	8.4	9.7	11.5	14.5	16.2	17.5	19.1	20.6	21.4	22.4	24.2	25.6	26.9	28.5	30.0	31.7	33.5	35.4	36.6	36.3
Growth LT	A3. Permanently lower GDP growth 1/	8.7	11.4	16.2	23.9	37.4	50.0	67.1	89.7	115.7	145.9	181.5	226.7	279.9	329.6	392.6	463.8	544.1	635.4	739.6	856.7	988.8
Pessimistic	Reduction in Oil Production	8.7	8.9	9.8	13.5	17.7	21.7	27.2	31.5	35.3	39.4	42.8	45.2	47.4	49.4	50.8	51.9	52.4	52.5	52.5	52.5	51.9
Growth	B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	8.7	18.9	44.6	61.8	81.4	97.2	105.1	114.6	123.6	131.0	137.5	143.7	150.4	154.3	157.6	160.3	162.4	164.1	165.7	166.8	167.6
Primary Balance	B2. Primary balance is at historical average minus one standard deviations in 2010-2011	8.7	6.7	6.5	6.4	6.4	5.2	5.8	5.2	5.4	5.7	6.0	6.3	6.9	7.2	7.6	8.0	8.6	9.2	10.0	10.8	11.5
Combination	B3. Combination of B1-B2 using one half standard deviation shocks	8.7	5.0	3.8	5.8	9.2	10.5	12.1	14.2	16.0	17.7	19.3	21.2	22.6	23.4	24.5	25.5	26.5	27.5	28.5	29.6	30.5
One-time depreciation	B4. One-time 30 percent real depreciation in 2010	8.7	9.3	9.8	8.6	8.2	7.1	6.3	6.3	6.3	6.9	7.1	7.6	7.9	8.1	8.3	8.7	9.3	9.8	10.5	11.3	11.8
Non-debt flows	B5. 10 percent of GDP increase in other debt-creating flows in 2010	8.7	10.6	17.9	16.9	16.5	14.4	13.6	13.5	13.2	13.0	12.9	13.3	13.2	13.1	13.2	13.4	13.6	14.0	14.5	15.1	15.6
	PV of Debt-to-GDP Ratio	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	Baseline	8.7	9.0	8.7	8.4	8.3	7.8	6.6	6.8	6.9	7.2	7.4	8.0	8.2	8.4	8.8	9.2	9.7	10.3	11.0	11.7	12.4
	Reduction in Oil Production	8.7	8.9	9.8	13.5	17.7	21.7	27.2	31.5	35.3	39.4	42.8	45.2	47.4	49.4	50.8	51.9	52.4	52.5	52.5	52.5	51.9
	Threshold	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
				-1.0																		
	PV of Debt-to-Revenue Ratio 2/																					
	Baseline	50.7	50.5	45.5	37.7	45.1	49.2	51.6	55.8	59.8	67.5	75.5	83.5	90.1	98.5	110.6	125.6	142.3	163.1	182.2	210.5	233.7
	A1. Real GDP growth and primary balance are at historical averages	50.7	12.5	-22.6	-41.6	-43.0	-49.0	-49.9	-185.2	-189.7	-140.1	-155.5	-163.4	-181.1	-201.6	-214.6	-231.1	-254.7	-276.3	-299.6	-317.9	-335.1
Fix Primary Balance	A2. Primary balance is unchanged from 2009	50.7	76.3	73.6	79.2	79.3	114.1	134.0	155.6	177.5	201.6	221.0	243.6	261.7	282.2	310.9	349.5	443.3	511.5	586.3	628.3	644.8
Growth LT	A3. Permanently lower GDP growth 1/	50.7	185.7	122.2	164.0	206.5	252.2	328.1	738.0	995.1	1374.0	1788.4	2290.8	3011.6	3642.8	4529.9	6205.9	7949.9	9994.1	12343.1	15230.4	18525.8
Pessimistic	Reduction in Oil Production	50.6	61.2	54.0	50.8	66.0	81.3	102.1	118.9	133.6	149.8	162.5	171.7	179.9	187.6	192.9	197.0	199.0	199.5	199.4	199.5	196.9
Growth	B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	50.7	172.3	336.8	473.8	644.4	849.7	1094.4	1331.2	1662.9	1954.0	2336.2	2873.7	3459.7	3849.5	4985.2	6357.9	7955.3	9597.2	11480.9	13452.8	15421.0
Primary Balance	B2. Primary balance is at historical average minus one standard deviations in 2010-2011	50.7	61.3	49.5	44.8	54.7	76.7	98.5	42.5	46.4	53.6	59.5	67.6	75.7	86.2	95.4	109.7	126.0	146.3	165.2	193.2	216.6
Combination	B3. Combination of B1-B2 using one half standard deviation shocks	50.7	45.8	22.9	19.9	50.3	72.4	93.7	116.0	138.1	167.9	190.3	214.8	245.5	280.9	308.5	340.2	380.9	433.6	472.9	530.6	573.2
One-time depreciation	B4. One-time 30 percent real depreciation in 2010	50.7	83.0	67.9	58.8	67.1	89.8	113.7	54.9	58.1	64.9	70.2	77.9	86.2	96.6	105.1	118.9	136.5	155.7	173.2	199.9	221.6
Non-debt flows	B5. 10 percent of GDP increase in other debt-creating flows in 2010	50.7	169.6	134.9	136.2	180.9	180.7	193.7	189.9	193.5	222.7	227.7	234.7	244.6	257.5	266.3	282.6	300.1	322.1	340.2	370.1	392.8
	PV of Debt-to-Revenue Ratio 2/	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	Baseline	50.7	50.6	55.6	57.7	45.1	49.2	51.6	55.8	59.8	67.5	75.5	83.5	90.1	101.5	110.6	125.6	142.3	163.1	182.2	210.5	233.7
	Reduction in Oil Production	50.6	60.2	54.0	50.8	66.0	81.3	102.1	118.9	133.6	149.8	162.5	171.7	179.9	187.6	192.9	197.0	199.0	199.5	199.4	199.5	196.9
	Threshold	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
				-1.0																		
	Debt Service-to-Revenue Ratio 2/																					
	Baseline	15.6	20.1	29.4	26.4	21.4	26.8	27.8	32.2	32.8	34.1	36.4	38.4	42.0	45.8	47.3	50.5	54.8	59.5	66.7	73.2	75.5
	A1. Real GDP growth and primary balance are at historical averages	15.6	23.9	20.2	-1.9	-1.2	-16.7	-18.3	-16.1	-21.4	-26.2	-29.8	-33.3	-40.7	-48.6	-46.9	-50.3	-58.5	-58.9	-65.1	-71.6	-76.2
Fix Primary Balance	A2. Primary balance is unchanged from 2009	15.6	20.1	29.3	24.9	25.9	41.6	47.3	59.7	61.7	71.5	76.9	77.6	92.1	98.4	110.6	118.9	138.5	146.1	162.1	126.8	137.9
Growth LT	A3. Permanently lower GDP growth 1/	15.6	31.8	37.9	46.0	58.9	116.5	146.1	214.4	289.9	392.6	522.9	683.3	885.8	1066.2	1305.3	1699.3	2220.9	2688.1	3245.5	3884.1	4538.9
Pessimistic	Reduction in Oil Production	15.6	29.0	34.0	30.0	46.0	81.3	102.1	118.9	133.6	149.8	162.5	171.7	179.9	187.6	192.9	197.0	199.0	199.5	199.4	199.5	196.9
Growth	B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	15.6	42.6	69.2	96.8	107.4	222.2	227.4	282.7	336.2	368.1	394.4	405.7	488.5	501.3	559.8	587.8	667.8	676.5	730.2	649.1	697.2
Primary Balance	B2. Primary balance is at historical average minus one standard deviations in 2010-2011	15.6	20.1	29.0	18.1	19.6	20.8	23.2	20.0	29.1	30.5	33.5	35.6	38.9	42.8	44.6	47.5	51.5	56.3	57.4	11.8	12.2
Combination	B3. Combination of B1-B2 using one half standard deviation shocks	15.6	30.6	33.9	31.2	34.5	29.6	30.2	48.9	55.7	63.4	71.5	75.6	89.4	95.5	106.5	111.4	125.1	131.2	139.2	88.6	94.0
One-time depreciation	B4. One-time 30 percent real depreciation in 2010	15.6	20.4	30.0	27.1	27.2	28.0	29.2	33.8	35.9	36.5	39.2	41.8	46.4	51.2	53.0	58.1	63.7	69.7	72.5	28.9	31.5
Non-debt flows	B5. 10 percent of GDP increase in other debt-creating flows in 2010	15.6	20.1	31.3	64.8	27.9	54.0	38.5	51.9	44.1	49.9	49.0	51.6	55.4	59.1	63.0	66.2	69.2	73.5	75.2	29.8	30.4
	Debt Service-to-Revenue Ratio 2/	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	Baseline	15.6	20.1	29.4	26.4	21.4	26.8	27.8	32.2	32.8	34.1	36.4	38.4	42.0	45.8	47.3	50.5	54.8	59.5	66.7	61.3	62.8
	Reduction in Oil Production	15.6	29.0	34.0	30.0	46.0	81.3	102.1	118.9	133.6	149.8	162.5	171.7	179.9	187.6	192.9	197.0	199.0	199.5	199.4	199.5	196.9
	Threshold	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0

DSA TECHNICAL TEAM

Technical Advisors/Resource Persons:

1.	Baba Musa	-	WAIFEM
2.	Ceesay Mod	-	WAIFEM

Technical Members:

1.	Mahmoud Magaji (Dr.)	-	DMO
2.	Joe Ugoala	-	DMO
3.	Hanatu Suleiman (Mrs.)	-	DMO
4.	Ibrahim Natagwandu	-	DMO
5.	Asheikh Maidugu (Dr.)	-	DMO
6.	Sa'id Jummai (Mrs.)	-	DMO
7.	Ibrahim Aliyu	-	DMO
8.	Tunde Lawal	-	NPC
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10.	G. K. Sanni	-	CBN
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17.	Barth Ajah	-	DMO
18.	Lukman Popoola	-	DMO
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20	Ismaila Okunlola	-	BOF
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