DEBT MANAGEMENT OFFICE
NIGERIA

2016

REPORT OF THE ANNUAL NATIONAL DEBT SUSTAINABILITY ANALYSIS (DSA)

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF BOXES

LIST OF ANNEXURES

GLOSSARY

AMCON	Asset Management Corporation of Nigeria
ASI	All-Share Index
ATM	Average Time-to-Maturity
ATR	Average Time-to-Re-Fixing
BDC	Bureau De Change
BOF	Budget Office of the Federation
CBN	Central Bank of Nigeria
CHF	Swiss Franc
CPIA	Country Policy & Institutional Assessment
DDR	Debt Data Reconstruction
DSA	Debt Sustainability Analysis
DSF-LICs	Debt Sustainability Framework for Low Income Countries
DSF-MICs	Debt Sustainability Framework for Middle Income Countries
DMO	Debt Management Office
ECFA	External Creditors Funding Account
FCT	Federal Capital Territory
FDIs	Foreign Direct Investments
FEC	Federal Executive Council
FGN	Federal Government of Nigeria
FMF	Federal Ministry of Finance
FX	Foreign Exchange
GBP	British Pound Sterling
GDP	Gross Domestic Product
GIFMIS	Government Integrated Financial Management Information System
GNI	Gross National Income
ICM	International Capital Market
IGR	Internally Generated Revenue
IMF	International Monetary Fund
IPPIS	Integrated Payroll and Personnel Information System
ISPO	Irrevocable Standing Payment Order

JPY	Japanese Yen
M_2	Broad Money Supply
MACs	Market Access Countries
Mbpd	Million Barrels Per Day
MDAs	Ministries, Departments and Agencies
MLT	Medium to Long-Term
MPR	Monetary Policy Rate
MTDS	Medium-Term Debt Management Strategy
MTEF	Medium-Term Expenditure Framework
NASS	National Assembly
NBS	National Bureau of Statistics
NIRP	National Industrial Revolution Plan
NPC	National Planning Commission
NPV	Net Present Value
NSE	Nigerian Stock Exchange
NTBs	Nigerian Treasury Bills
OAGF	Office of Accountant-General of the Federation
Pb	Per barrel
PENCOM	Pension Commission
PIB	Petroleum Industry Bill
PV	Present Value
SEC	Securities and Exchange Commission
SF	Sinking Fund
SPV	Special Purpose Vehicle
ST	Short-Term
TSA	Treasury Single Account
TTM	Term-To-Maturity
WAIFEM	West African Institute for Financial and Economic Management
WAMZ	West African Monetary Zone

EXECUTIVE SUMMARY

Background

The 2016 Debt Sustainability Analysis (DSA) was held at a most challenging period in the Nigerian economy, when virtually all the macroeconomic variables were in a deteriorating state. This is as a result of a number of factors, from both domestic and international fronts. The fragile performance of the global economy which lasted throughout 2015 prevailed into 2016, with the global output continuing its sluggish growth, underpinned by weak demand and slowing productivity, coupled with the uncertainty surrounding Britain's planned exit from the European Union (BREXIT), that further lessened the prospects for a more prosperous global economy.

For the first time in over two decades, the Nigerian economy witnessed a negative growth in two consecutive quarters – Q1 and Q2, 2016, thus, indicating that the economy was technically in recession. Meanwhile, relative to the size of the GDP, Nigeria's total public debt level still appeared normal, unlike the weak performance of the revenue-related indicators. This affirms the fact that, paradoxically, there is no direct correlation between the size of the country's GDP and its revenue base. Specifically, the ratio of Public Debt-to-GDP was 13.02 percent as at end of December, 2015, which was still within the Country's Specific limit of 19.39 percent in the medium-term (up to 2017), and far below the CPIA's threshold of 56.00 percent for countries in Nigeria's peer-group. However, the liquidity ratio revealed gross weaknesses in the structure of the economy, as the ratio of Public Debt Service-to-Revenue of 28.10 percent as at end of December, 2015, breached the Country-Specific threshold of 28 percent. This highlights a potential risk to the debt portfolio, which could be exacerbated by the developments in the international oil market, as further decline in global oil prices would exert undue pressures on the already fragile economy, including the debt position in the medium to long-term. This buttresses the urgent need for concerted efforts to be intensified to diversify the revenue base of the country away from oil.

Methodology

The conduct of 2016 DSA exercise was aimed at updating the report of the 2015 DSA, as part of the requirements of a sound public debt management practice. It ensures that the nation's total Public debt portfolio is annually subjected to appropriate qualitative and quantitative analysis, by evaluating the country's repayment capacity for its current and future debt obligations.

Two scenarios were considered, namely: Baseline and Optimistic; there was no Pessimistic Scenario as the Baseline Scenario was considered pessimistic enough. The Baseline Scenario is anchored on the current macroeconomic framework of the country as outlined in the 2016 Federal Government's annual Budget and the provisional Medium-Term Expenditure Framework (MTEF), 2017-2019. The Optimistic Scenario is hinged on the positive outlook for the nation's economy arising from the expectations of enhanced economic activities that would result from the various on-going reforms and initiatives in the key sectors of the economy, which are expected to engender productive activities to stimulate the economy. In line with the current Debt Management Strategy, 2016-2019, the 2016 DSA reflected Government's policy objective of reducing its overall cost of borrowing to a more tolerable level of risk by achieving the country's strategic targets of an optimal debt composition of 60:40 ratio for domestic and external debts, respectively, as well as attaining the domestic debt mix of 75:25 ratio for long to short-term debts, by the end of the strategy period of 2019. It also supports the use of external finance for the funding of capital projects, in line with the policy thrust of the present Administration to speed up infrastructural development in the country.

The 2016 DSA exercise adopted the updated version of the joint World Bank/IMF Debt Sustainability Framework for Low-Income Countries (DSF-LICs) analytical tool, which was released in August, 2015. The revised DSF-LICs was used to assess the country's debt sustainability based on the Baseline and Optimistic Scenarios over a 20-year projection period under various assumptions. The outcomes of the exercise were used to compare the country's debt sustainability indicators with internationally established debt burden thresholds, which measure the country's solvency and liquidity positions.

The scope of data coverage comprised Total Public debt of the FGN, total debt of the State Governments (external and domestic) and the total debt of the FCT. The FGN's contingent liabilities and private sector external debts were also included, because of their wider implications for public debt sustainability.

Summary of Key Findings

The results of the 2016 DSA showed that for the first time since the exit from the Paris and London clubs of creditors in 2005 and 2006, **Nigeria's debt position experienced some deterioration and slipped from a Low-risk of debt distress to a Medium-risk of debt distress. Although the level of debt stock is still appreciably low relative to the country's aggregate output (GDP), the debt portfolio remains mostly vulnerable to the various shocks associated with revenue, exports and substantial currency devaluation**. This meant that, as in the previous DSA, while the GDP-related indicators appear normal, as they remained below their respective thresholds, the revenue-based indicators were mostly sensitive to the revenue shocks. The detailed outcome of the exercise is highlighted below.

a) Baseline Scenario

(i) **Output Indicator – (Debt/GDP)**

- ***FGN-only***

The estimated average real GDP growth rate of 4.49 percent over the projection period outweighs the expected rate of debt accumulation of 1.64 percent, indicating that under the fiscal sustainability of the FGN-only (External[1] & Domestic Debt), the FGN debt portfolio is at a low risk of debt distress. The PV of Total Debt-to-GDP ratio is projected at 13.5 and 15.5 percent in 2016 and 2017, respectively. This is expected to peak at 16.1 percent in 2019, before trending downwards from 15.0 percent in 2020 to 3.6 percent by the end of the projection period, 2036. These compare favourably with the peer group threshold of 56 percent.

- ***The Federation (FGN, States & FCT)***

The fiscal sustainability of the Federation (FGN, States and FCT) mirrored the performance of FGN-only. The result showed that the PV of Total Debt-to-GDP ratio at 15.9 percent in 2016 is still within the standard peer group threshold of 56 percent and the country-specific threshold of 19.39 percent, up to 2017. The ratio is expected to peak at 19.0 percent in 2019, before trending downwards from 2020 throughout the projection period to reach 4.3 percent in 2036. The decline in the PV of Total Debt-to-GDP ratio would be due to lower rate of public debt accumulation at an average of 1.59 percent over the projection period against the relatively higher average real GDP growth rate of 4.49 percent.

[1] External debt includes FGN, States and FCT, given that the FGN is the primary obligor for all external borrowing

(ii) **Revenue-Based Indicator (Total Debt-to-Revenue)**

- ***FGN-only***

For the FGN-only (External and Domestic debts), the revenue-based indicators, showed a faster rate of deterioration from the first year of projection in 2016. The PV of Debt-to-Revenue ratio was projected at 395.3 percent in 2016, to peak at 437.9 percent in 2018. These ratios were above the Country-Specific threshold of 350 percent. It is important to note that there are no international thresholds for the fiscal sustainability (combined external and domestic), even though such a threshold exists only for External Debt-to-Revenue ratio, which is 250 percent; Nigeria had to adopt a country specific ratio, given that the domestic debt is a peculiarly strong portion of the country's public debt. The stress tests or the combined shocks, when applied to the PV of Debt-to-Revenue ratio, shows a substantial deterioration in the indicator, indicating that any prolonged shock on revenue could lead to a state of debt distress in the medium to long-term, if other countervailing policies are not put in place to enhance the non-oil revenue. Thus, affirming the proposition for an urgent need to further diversify the revenue base of the country to forestall the risk of debt distress.

- ***Federation (FGN, States & FCT)***

The PV of Debt-to-Revenue ratio of the Federation (FGN, States and FCT) looks fairly robust, throughout the projection period when compared to the FGN-only. The projected PV of Debt-to-Revenue ratio trended below the country-specific threshold of 350 percent throughout the projection period, from 2016 at 291.9 to 188.2 percent by 2036. This indicator is much lower than that obtained under the FGN-only, due mainly to the addition of the sub-national's revenue variable, which is proportionately higher than the addition of their debt stock variable.

(iii) **Revenue-Based Indicator (Debt Service-to-Revenue)**

- ***FGN-only***

The Debt Service-to-Revenue ratio under the FGN-only breached the country's specific threshold of 28 percent from 2016 at 50.3 percent, up to 2031, before trending downwards to 25.7 percent in 2036. This shows that the debt portfolio still remains highly vulnerable to persistent shocks in revenue, indicating a potential challenge in maintaining debt sustainability.

- ***The Federation (FGN, States and FCT)***

The ratio of Debt Service-to-Revenue for the Federation also revealed a similar pattern to the outcome of the FGN-only, as it immediately breached the country specific threshold of 28 percent from the first year of projection in 2016 with 61.3 percent, which was higher than the FGN-only ratio for the same year. This situation would prevail throughout the projection period up to 2036.

b) Optimistic Scenario

The sustainability position of the FGN's Total debt portfolio in the fiscal block of the Optimistic Scenario appears positive, as the PV of Total Public Debt-to-GDP ratio declined steadily from its highest value of 15.6 percent in 2018, to as low as 3.4 percent at the end of the projection period. The PV of Total Public Debt-to-Revenue and Total Public Debt Service-to-Revenue ratios, which have no set standard benchmarks, trended at 395.3 and 47.4 percent in 2016, but dropped rapidly from 310.6 and 33.5 percent in 2026 to 151.4 and 15.2 percent by the end of the projection period, respectively. Thus, reaffirming the earlier position on the need for immediate measures to be taken to improve the revenue base of the country in other to forestall falling into debt sustainability problem in the medium-term.

From the foregoing, it is evident that the rate of GDP growth does not proportionately impact on the revenue accruing to the government, thus, making the portfolio highly sensitive to Revenue shocks. **Therefore, there is an urgent need for the authorities to intensify all efforts aimed at diversifying the sources of revenue away from crude oil, as well as implement other intervention policies that will boost exports and capital-flows, such as foreign direct investments into the country.** This has become very critical, given the persistent shocks on the revenue and exports, arising from the continued volatility in the price of oil in the international commodities market.

Key Recommendations

The key policy recommendations of the 2016 DSA exercise are as follows:

i. The end-period NPV of Total Public Debt-to-GDP ratio for 2016 for FGN is projected at 13.5 percent. Given the Country-Specific threshold of 19.39 percent for NPV of

Total Public Debt-to-GDP ratio (up to 2017), the borrowing space available is 5.89 percent of the estimated GDP of US$374.95 billion for 2017.

ii. To this end, the **maximum amount that could be borrowed (domestic and external) by the FGN in 2017 without violating the country-specific threshold will be US$22.08 billion (i.e. 5.89 percent of US$374.95 billion).**

iii. The Debt Management Strategy, 2016-2019, provides for the rebalancing of the debt portfolio from its composition of 84:16 as at end-December, 2015, to an optimal composition of 60:40 by end-December, 2019 for domestic to external debts, respectively. It supports the use of more external finance for funding capital projects, in line with the focus of the present Administration on speeding up infrastructural development in the country, by substituting the relatively expensive domestic borrowing in favour of cheaper external financing. This policy stance has been reinforced by the recent deterioration in macroeconomic variables, particularly with respect to the rising cost of domestic borrowing. Hence, the shift of emphasis to external borrowing would help to reduce debt service burden in the short to medium-term and further create more borrowing space for the private sector in the domestic market. **Accordingly, for the fiscal year 2017, the maximum amount that could be borrowed is US$22.08 billion, and it is proposed to be obtained from both the domestic and external sources as follows:**

- **New Domestic Borrowing US$5.52 billion (equivalent of about ₦1,600.00 billion); and,**
- **New External Borrowing: US$16.56 billion (equivalent of about ₦4,800.00 billion).**

It is worthy to note that these are recommended maximum amounts that could be borrowed, taking into account the absorptive capacity of the domestic debt market, and the options available in the external market. It is expected that such external borrowings, which would be long-term (minimum 15 years), would be strategically deployed to fund priority infrastructure projects, that would boost output, and put the economy on the path of sustainable recovery and growth. It is further expected that the long maturity profile of such loans would enable the economy to be sufficiently diversified for increased export earnings for ease of debt service payments.

iv. There is an urgent need for the Government to formulate an **Economic Blueprint or Road-Map** for the medium-term. Aside from addressing the current challenges, it would go a long way to engender confidence in both local and international investors on the way forward. This has become very imperative, given that investor-perception of a country's outlook is critical to its economic recovery.

v. It is advisable that the Federal Government sustains the on-going reforms and initiatives in the various key sectors of the economy, including: agriculture, education, housing, power, and transportation, as this would foster the needed inclusive economic growth and development.

vi. In view of the continued deterioration in Government's revenue, occasioned by the drastic fall in the price of oil, Government should reinforce its initiatives aimed at diversifying the productive base of the economy and, thus, improve the non-oil revenue receipts. Accordingly, concrete and urgent steps should be taken to broaden the tax base and improve efficiency in tax administration and collection.

vii. Given the country's huge infrastructural needs, the Government is encouraged to sustain the policy of allocating a minimum of 30 percent of Federal Government's budget to capital investments, as well as ensuring judicious utilization of such funds for infrastructure development.

viii. In view of the adverse effect on the economy of the recurring delays in budget formulation and passage, there is the need for the Government to ensure strict adherence to the annual budget calendar, so as to facilitate growth recovery, reduce fiscal slippages and delays in budget implementation.

ix. The passage of the Petroleum Industry Bill (PIB) by the National Assembly is long overdue and should be given speedy attention by the authorities. Its passage is expected to liberalise the oil and gas sector, and thus, attract more investments into the sector, which will have positive multiplier effect on the economy.

x. Given that in the short to medium-term, oil would still remains a key revenue earner of the nation, the Federal Government is encouraged to continue on its efforts to curtail crude oil production disruptions in the oil producing areas.

xi. In view of the country's huge infrastructure requirements, the Federal Government is enjoined to creatively explore other alternative and viable sources of financing critical infrastructure development outside the routine budgetary process. These may include the setting up of an Infrastructure Development Fund, the issuance of Infrastructure-tied Bonds, as well as encouragement for the private sector to participate in funding viable infrastructural projects through Public-Private-Partnership arrangements.

xii. As part of the initiatives for boosting revenue, the Federal Government is encouraged to fast-track the process of liberalising the exploration of the solid minerals deposits across the country. This is to make the sector much more attractive and competitive, and further expand the non-oil revenue base.

xiii. As part of Government's commitment to encouraging private sector participation in the development of the economy, the demand for FGN Guarantees may likely increase. In order to instil discipline and discourage frivolous requests that may unduly expose the Federal Government, it is also recommended that the issuance of FGN Guarantees to the private sector should attract appropriate fees, and should be within an established framework.

xiv. Given the current dwindling resources accruing to all tiers of Government, resulting from the various shocks in the economy, State Governments need to be encouraged to implement effective fiscal reforms aimed at improving their internally generated revenues, so as to curtail the over-dependence on federal allocations and Federal Government bail-outs.

xv. The DMO should be encouraged to sustain its on-going capacity building initiatives for the sub-nationals, so as to upscale their technical competence and skills in debt management, and bring them to the level where the staff of the Debt Management Departments would be able to conduct DSAs and Medium-Term Debt Strategy (MTDS) for their States. This will further help the officials to effectively advise their respective State Governments on issues relating to public debt management.

CHAPTER ONE

INTRODUCTION

The 2016 Debt Sustainability Analysis (DSA) was held at a most challenging period in the Nigerian economy, when virtually all the macroeconomic variables were in a deteriorating state. This is as a result of a number of factors, from both domestic and international fronts. The fragile performance of the global economy which lasted throughout 2015 prevailed into 2016, with the global output continuing its sluggish growth, underpinned by weak demand and slowing productivity, coupled with the uncertainty surrounding Britain's planned exit from the European Union (BREXIT), that further lessened the prospects for a more prosperous global economy.

For the first time in over two decades, the Nigerian economy witnessed a negative growth in two consecutive quarters – Q1 and Q2, 2016, thus, indicating that the economy was technically in recession. Meanwhile, relative to the size of the GDP, Nigeria's total public debt level still appeared normal, unlike the weak performance of the revenue-related indicators. This affirms the fact that, paradoxically, there is no direct correlation between the size of the country's GDP and its revenue base. Specifically, the ratio of Public Debt-to-GDP was 13.02 percent as at end of December, 2015, which was still within the Country's Specific limit of 19.39 percent in the medium-term (up to 2017), and far below the CPIA's threshold of 56.00 percent for countries in Nigeria's peer-group. However, the liquidity ratio revealed gross weaknesses in the structure of the economy, as the ratio of Public Debt Service-to-Revenue of 28.10 percent as at end of December, 2015, breached the Country-Specific threshold of 28 percent. This highlights a potential risk to the debt portfolio, which could be exacerbated by the developments in the international oil market, as further decline in global oil prices would exert undue pressures on the already fragile economy, including the debt position in the medium to long-term. This buttresses the urgent need for concerted efforts to be intensified to diversify the revenue base of the country away from oil.

The 2016 National Debt Sustainability Analysis (2016 DSA) exercise was organised by the Debt Management Office (DMO) from July 11 to 20, 2016, in collaboration with relevant stakeholders in public debt management operations, namely: the Federal Ministry of Finance (FMF), Central Bank of Nigeria (CBN), Ministry of Budget and National Planning (MBPN), Budget Office of the Federation (BOF), National Bureau of Statistics (NBS), and the Office of the Accountant-General of the Federation (OAGF). The Securities and Exchange Commission (SEC) and National Assembly (NASS) participated for the first time at the exercise, as part of the efforts at liberalising public debt management knowledge, as well as to enable the legislative arm of Government to further appreciate the full import of this important exercise, which will help to enhance and facilitate the implementation of its outcomes. The West African Institute for Financial and Economic Management (WAIFEM), as in the past, provided technical support.

The exercise was aimed at updating the 2015 DSA, as part of the requirements of sound public debt management practices. It ensures that the nation's total Public debt portfolio is, subjected to appropriate qualitative and quantitative analysis. The exercise also evaluates the country's repayment capacity of its current and future debt obligations.

The 2016 DSA considered two main scenarios, namely: Baseline and Optimistic, in view of the recent developments in both global and local economic environments, which include volatility in global oil prices and quantity shocks. There was no "Pessimistic Scenario" as the Baseline Scenario was considered pessimistic enough. The Baseline scenario is anchored on the current macroeconomic framework of the country as outlined in the 2016 Federal Government annual Budget and the provisional MTEF, 2017-2019. The Optimistic Scenario is hinged on the positive outlook for the nation's economy arising from the expectations of enhanced economic activities that would result from the various on-going reforms and initiatives in the key sectors of the economy, which are expected to engender productive activities to stimulate the economy. In line with the current Debt Management Strategy, 2016-2019, the 2016 DSA reflected Government's policy objective of reducing the overall cost of borrowing by the government to an acceptable level of risk by achieving the country's strategic targets of an optimal debt composition of 60:40 ratio for domestic and external debts, respectively, as well as attaining the domestic debt mix of 75:25 ratio for long to short-term debts, by the end of the strategy period of 2019. It supports the use of external finance for the funding of capital projects, in line with the policy thrust of the present Administration to speed up infrastructural development in the country.

1.1 Policy Objectives

The purpose of the 2016 DSA is to evaluate the country's capacity to finance its policy objectives and service its debt obligations, without unduly large adjustments, which may compromise its macroeconomic stability, growth and development. The policy objectives include, to:

i. update the 2015 DSA, in view of the dwindling oil revenue caused by the fall in commodiy prices and the attendant foreign exchange risks;
ii. assess the current and future public debt portfolio of the country, given the focus of the present Administration on funding critical infrastructure through borrowing, with a view to determining its sustainability position, identify any vulnerabilities in the debt portfolio or government's policy framework and proffer corrective measures;
iii. guide the government in its borrowing decisions, so as to ensure that the government's financing needs and future repayment ability are taken into account;
iv. advise the government on its borrowing limits and financing options for 2017;
v. provide inputs into the national budget and information necessary for updating the Medium-Term Expenditure Framework (MTEF); and,
vi. align the 2016 DSA with the new Debt Management Strategy, which focuses on achieving strategic targets of an optimal debt composition of 60:40 ratio for domestic and external debts, respectively, as well as attaining the domestic debt mix of 75:25 ratio for long to short-term debts, by the end of the strategy period of 2019.

1.2 Methodology

The 2016 DSA exercise adopted the revised version of the joint World Bank/IMF Debt Sustainability Framework for Low Income Countries (DSF-LICs) analytical tool, which was released on August 7, 2015. The DSF-LICs provides an indicative debt burden thresholds that depends on the quality of a country's policies and institutional assessment. The DSF, based on the Country Policy and Institutional Assessment (CPIA) index ranking, with a scale of 1 to 6, classifies countries into one of three policy performance categories (either Strong, Medium or Poor) and uses different indicative thresholds for debt burdens, depending on the performance category. Nigeria is currently classified as a Medium Performer with a score of 3.50 in the CPIA Index. In conducting the 2016 DSA, the revised DSF-LICs was used to assess the country's debt sustainability status based on Baseline and Optimistic scenarios over a 20-year projection period under various assumptions. The outcomes of the exercise are used to compare the country's debt sustainability indicators with internationally established debt burden thresholds, which measure the country's solvency and liquidity positions.

The revised DSF-LICs also highlights one solvency threshold for the fiscal block (combined external and domestic debt), which is the Present Value (PV) of Total Public Debt-to-GDP ratio set at 56 percent for Nigeria's peer group, while the Nominal Total Public Debt-to-GDP ratio is 60 percent. In addition, there are five (5) debt burden indicators in the external block – three (3) solvency and two (2) liquidity measures (Table 1.1). The solvency measures comprise the PV of External Debt-to-GDP ratio, 40 percent; PV of External Debt-to-Revenue ratio, 250 percent; and, PV of External Debt-to-Exports ratio, 150 percent. The liquidity thresholds include the External Debt Service-to-Revenue ratio, 20 percent and External Debt Service-to-Exports ratio, 20 percent.

Table 1.1: Fiscal and External Debt Thresholds

Qualities of Policies and Institutions (CPIA)	Solvency Ratios				Liquidity Ratios	
	Fiscal	External	External	External	External	External
	NPV of Debt as a % of				Debt Service as a % of	
	GDP	GDP	Revenue	Export	Revenue	Export
Weak	38	30	200	100	25	15
Medium	**56**	**40**	**250**	**150**	**20**	**20**
Strong	74	50	300	200	35	25

Source: World Bank/IMF

1.3 Scope of 2016 DSA Data Coverage

The scope of data for the 2016 DSA comprised total public debt of the FGN, total debt of the State Governments and the total debt of the FCT (external and domestic). The FGN's contingent liabilities and private sector external debts were also included, because of their wider implications for public debt sustainability. These data were incorporated in the analysis to further enhance the robustness of the exercise. The State Governments' Domestic debt provisional data for 2015, were used in the 2016 baseline debt data. The analytical tool provided macroeconomic indicators and variables across the four sectors of the economy (real, fiscal, monetary and external), which are as follows:

i. FGN's contingent liabilities;
ii. Public Sector Revenue and Expenditure;
iii. Aid flows (total grants);

iv. GDP at current and constant prices, including the deflator;
v. Inflation, Interest and Exchange Rates;
vi. Current account balance, including net official transfers;
vii. Exports and Imports of goods and services;
viii. Net Foreign Direct Investments (FDIs); and,
ix. Accretion to External Reserves (flows).

The analysis was conducted using a 10-year historical data[2], which was projected for twenty (20) years up to 2036, using 2015 data as base year, and 2016 as the first year of projection. This is based on the perspective that debt sustainability analysis is a forward-looking concept that requires long-term projections.

1.4 Benefits of 2016 DSA

The outcomes of the 2016 DSA exercise provide the status of the country's debt sustainability compared to standard thresholds and other debt and macroeconomic indicators**.** The benefits derivable from conducting 2016 DSA, is that it will include among others, activities to:

i. evaluate the solvency and liquidity status of the country's total public debt portfolio, taking into account current and future debt obligations;
ii. determine the fiscal space available to the government with a view to determining the borrowing limit, given the current debt level;
iii. guide the government on optimal funding options for its projects and programmes;
iv. detect current and potential future fiscal stress that might be caused by external shocks with a view to preventing and resolving the crises;
v. evaluate the risks inherent with the current total debt portfolio and proffer mitigating measures; and,
vi. examine the impact of on-going fiscal policy reforms of the present government and monetary policy objectives on public debt management strategies and provide policy advice in this regard.

The Report is divided into seven chapters, with the introduction as chapter one. Chapter two presents the recent macroeconomic developments in the global and domestic

[2] Nigeria, like many low-income countries uses cash basis of accounting, which limits the DSA data to only actual cash flows, as against the accrual accounting principle that recognizes non-cash based assets. Hence, net-worth basis was not considered.

economies, as well as provides the future outlook. Chapter three provides analyses of the country's current debt portfolio as at the end of December, 2015. Chapter four reviews the risks associated with the current FGN's total public debt portfolio. Chapter five outlines the assumptions underpinning the Baseline and Optimistic Scenarios. Chapter six analyses the results of the data simulation exercise and contains the determination of borrowing limit for 2017 and recommendations, while Chapter seven presents the key findings and recommendations of the 2016 DSA exercise.

CHAPTER TWO

RECENT MACROECONOMIC DEVELOPMENTS

2.1 External Developments

The global economic performance fell short of growth expectations in 2015 and decelerated from 3.40 percent in 2014 to 3.10 percent as a result of weakened commodity prices, slowdown in the Chinese economy, threat of capital reversal posed by the normalization of US monetary policy, subdued global trade, weaker capital flows, heightened exchange rate volatility and persistent macroeconomic uncertainties. The growth forecast for 2016 was 3.20 percent and has been projected to pick up in 2017 at 3.50 percent (April 2016 World Economic Outlook). Growth in the advanced economies was projected to remain modest at 2.10 percent in 2016, up from 1.90 percent growth rate in 2015. In the United States of America, growth was projected to remain flat at 2.40 percent in 2016, mainly due to weak investments.

In the euro area, despite increased political risks, output growth was projected to remain modest at 1.50 percent in 2016, up from 0.90 percent in 2015, driven largely by higher growth performances from Germany, France and Italy. In the emerging markets and developing economies, growth prospects across countries remained uneven and generally weak. Growth was projected to increase modestly from 4.00 percent in 2015 to 4.10 percent in 2016, reflecting a variety of factors, including slowing growth in oil exporting countries, slowdown in China, deep recession in Russia and Brazil, diminished growth prospects in many African, Latin America and Middle East countries due to unfavourable global environment, as well as unabated political and security risks. On the positive side, India performed strongly in the first-half of 2016, with strong growth and rising incomes, so also were some economies of the South East Asia such as Indonesia, Malaysia, Philippines, Thailand and Vietnam. The growth prospect for Sub-Saharan African economy in the first-half of 2016 was projected at 3.00 percent in 2016, down from 3.40 percent in 2015, due to prolonged decline in commodity prices, political and institutional constraints, as well as, weaker growth in Nigeria and South Africa.

2.2 Domestic Developments

The Nigerian economy experienced weak performance in 2015. The real GDP growth rate declined to 2.79 percent in 2015, from 6.22 percent in 2014 as shown in Table 2.1. The development was attributed to the collapse in oil prices in the international oil market from average price of US$100.40 per barrel in 2014 to US$52.65 per barrel in 2015, the banning of some items from official foreign exchange sources, continued slide in the Naira exchange rate and the high cost of production influenced by shortage of Premium Motor Spirit (PMS), power outages and the security issues, including insurgency in the North East part of the country. Other factors included decline in oil production, slowdown in private sector credit growth, low capital budget releases and spending, decline in domestic demand and the 2015 general elections, which suppressed economic activities. The modest growth recorded in 2015 was driven by the non-oil sector supported mainly by increased contributions from the services, agricultural and construction sectors. However, economic activities in the oil and gas, manufacturing, and utilities sectors declined during the review period. With the country's population growth rate of 3.2 percent per annum, the GDP per capita contracted from US$3,117.88 in 2014 to US$2,590.35 in 2015. Inflation rose from 8.0 percent in 2014 to 9.6 percent in 2015. This was attributed to the high cost of transportation induced by the partial removal of petroleum subsidy, as well as the effect of exchange rate and security challenges in the North East.

Table 2.1: Recent Macroeconomic Developments, 2011-2015

Indicators	2011	2012	2013	2014	2015
Real GDP Growth Rate (%)	5.31	4.21	5.49	6.22	2.79
Annual GDP Deflator (2010=100) (% Annual Change)	9.51	9.27	5.87	4.66	2.86
Headline Inflation Rate (%)	10.30	12.00	8.00	8.00	9.60
Actual Overall Fiscal Deficit (% of GDP)	3.00	2.40	1.40	0.94	1.64
End-Period Exchange Rate (₦)	158.27	156.05	155.98	169.68	196.50
Current Account Position (US$'Billions)*	10.76	17.52	19.21	0.91*	-15.44
Total Public Debt-to-GDP Ratio (%)	20.58**	22.43**	12.65	12.65	13.02
External Reserve Stock (US$'Billion)	32.64	43.83	42.85	34.24	28.28

Sources: NBS, CBN, OAGF, and DMO
Note: Total Public Debt-to-GDP ratio include States' Domestic Debt stock from 2011-2015
*Revised figures from CBN
**Total Public Debt-to-GDP ratio pre-rebasing

Available data from the OAGF indicated that actual revenue and expenditure of the Federal Government for fiscal year 2015 were ₦3,209.57 billion and ₦4,767.37 billion, respectively compared with ₦3,287.77 billion and ₦4,123.42 billion in 2014. The overall fiscal deficit stood at ₦1,557.80 billion in 2015, while the overall fiscal deficit-to-GDP ratio increased to 1.64 percent in 2015 from 0.94 percent in 2014. The revenue estimate of the 2015 Federal Government Budget was based on oil price benchmark of US$53.00 per barrel compared with US$77.50 per barrel in 2014. In the external sector, provisional figures revealed that the sector was under pressure and recorded an overall balance of payment deficit of 1.40 percent of GDP occasioned by lower oil prices in the international oil market, depletion of external reserves and capital reversals. The external reserves fell by 17.40 percent from US$34.24 billion in 2014 to US$28.28 billion as at end of December, 2015, which could barely finance 6.5 months of import.

The current account position swung from a surplus of 0.18 percent of GDP in 2014 to a deficit of 3.79 percent of GDP in 2015, driven largely by adverse trade balance and lower financial inflows from Nigerians in Diaspora. Owing to intense pressure arising from excessive demand and capital reversal in the foreign exchange market in the first-half of the year, the CBN closed the official foreign exchange window and adopted the inter-bank foreign exchange market as a new mechanism for determining the Naira exchange rate. The Bank also introduced pre-qualification of customers' Foreign Exchange bid application and a maximum utilization period of 72 hours for inter-bank funds to prevent frivolous demand and hoarding of foreign exchange, placed quantitative restrictions on overseas Naira-denominated card transactions and excluded some items from foreign exchange at the official source. Despite these measures, the exchange rate depreciated at both the Interbank and Bureau De Change (BDC) segments of the foreign exchange market. The average exchange rate of the Naira at the Inter-bank segment showed that the exchange rate depreciated against the US dollar by 15.60 percent to ₦195.52 per US dollar in 2015. It also depreciated by 22.80 percent to ₦222.79 per US dollar at the BDC, compared with ₦171.45 per US dollar in 2014. This development widened the premium between the inter-bank/BDC rates to 13.90 percent, in 2015 from 8.10 percent in 2014.

In the monetary sector, provisional data for 2015 showed that Broad Money Supply (M_2) increased by 5.90 percent as at end of December, 2015, over the level at end of December, 2014, in contrast to the growth of 7.20 percent in the corresponding period of 2014. The Monetary Policy Rate (MPR) was reduced to 11.00 percent from 13.00 percent in 2015, reflecting the CBN's expansionary monetary policy stance aimed at sustaining the stability of the financial system. The weighted average prime and maximum lending rates rose by 0.30 and 0.96 percentage points to 16.85 percent and 26.71 percent, respectively. In the

Inter-bank money market, the weighted average inter-bank call rate and Open-Buy-Back (OBB) rate rose to 13.62 and 13.48 percent, from 12.47 and 11.97 percent, respectively, as at end December, 2015.

CHAPTER THREE
PUBLIC DEBT PORTFOLIO REVIEW

3.1 Nigeria's Total Public Debt Outstanding

Nigeria's total public debt outstanding as at end of December, 2015 was ₦12,603,705.28 million (US$65,428.53 million) compared to ₦11,243,120.22 million (US$67,726.28 million) in 2014, representing an increase of ₦1,360,585.06 million or 12 percent. The external debt increased to ₦2,111,530.71 million (US$10,718.43 million), while domestic debt stood at ₦10,492,174.57 million (US$54,710.10 million). The domestic debt stock comprised securitised Federal Government of Nigeria debt of N8,836,995.86 million (US$44,857.85 million) and 36 States and the FCT domestic debt of ₦1,655,178.71 million (US$9,852.25 million) as at end of December, 2014. The figures for the 36 States and the FCT's domestic debt stock for 2015, were still being collated at the time of preparing this report, as compilation and validation of the domestic debt data of the 36 States and the FCT necessarily occurs with a time lag.

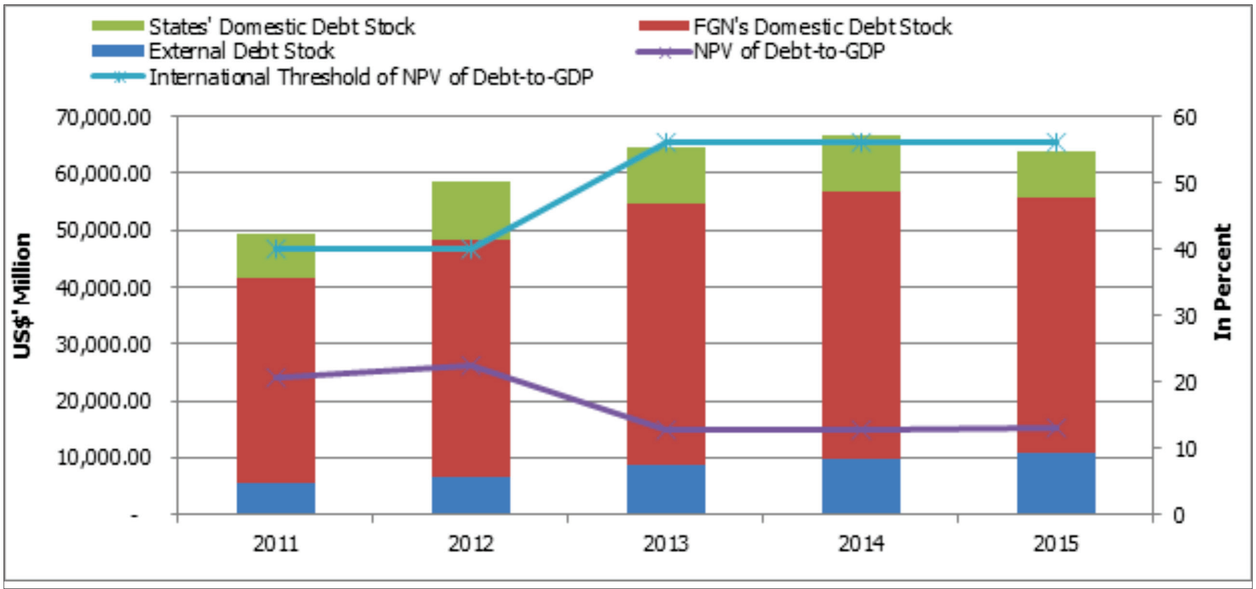
Table 3.1: Nigeria's Total Public Debt Outstanding, 2011-2015

	2011	2012	2013	2014	2015
FGN Debt Stock					
External Debt Stock*					
US$'Million	5,666.58	6,527.07	8,821.90	9,711.45	10,718.43
NGN'Million	887,953.09	1,016,721.69	1,373,569.83	1,631,523.60	2,111,530.71
% Share of Total	*(11.47)*	*(11.17)*	*(13.69)*	*(14.58)*	*(16.75)*
as % of GDP	2.36	2.50	1.73	1.84	2.18
FGN's Domestic Debt Stock					
US$'Million	35,882.86	41,969.16	45,722.41	47,047.77	44,857.85
NGN'Million	5,622,844.16	6,537,536.05	7,118,979.24	7,904,025.36	8,836,995.86
% Share of Total	*(72.61)*	*(71.79)*	*(70.98)*	*(70.63)*	*(70.11)*
as % of GDP	14.94	16.10	8.98	8.93	9.13
States' Domestic Debt Stock					
US$'Million	7,870.42	9,961.16	9,874.58	9,852.25**	8,401.92***
NGN'Million	1,233,294.64	1,551,650.13	1,537,471.45	1,655,178.71**	1,655,178.71***
% Share of Total	*(15.93)*	*(17.04)*	*(15.33)*	*(14.79)*	*(13.13)*
as % of GDP	3.28	3.82	1.94	1.87	1.71
Nigeria's Total Public Debt Stock					
US$' Million	**49,419.86**	**58,457.39**	**64,418.89**	**66,611.47**	**63,978.20**
NGN' Million	7,744,091.89	9,105,907.87	10,030,020.52	11,190,727.67	12,603,705.28
as % of GDP	20.58	22.43	12.65	12.65	13.02

Source: DMO
*External Debt includes External Debt of the States & FCT
**Revised
***Actual domestic debt stock for 36 States and the FCT as at end-December, 2014 used as proxy for 2015, as subnational debt data compilation occurs with a considerable time lag.

Table 3.1 further shows that the ratio of Nigeria's Total Public Debt-to-GDP was 13.02 percent in 2015 compared to 12.65 percent in 2014. This ratio was still within the Country's specific limit of 19.39 percent in the medium-term, up to 2017, and far below the CPIA's threshold of 56.00 percent for countries in Nigeria's peer-group, as well as the WAMZ convergence threshold of 70.00 percent. Figure 3.1 shows the trend in total public debt outstanding for a five-year period (2011-2015).

Figure 3.1: Trend in Nigeria's Total Public Debt Stock, 2011-2015



Source: DMO

3.2 FGN's Total Public Debt Service

The FGN's total debt service was US$5,499.24 million as at end of December, 2015, compared to US$5,500.35 million in 2014 (Table 3.2). While debt service payment on external debt slightly decreased by US$1.11 million or 0.02 percent as a result of decline in payment to external debt creditors, the debt service payment on domestic debt marginally increased by US$14.55 million or 0.28 percent, due to the additional issuances during the year. The external and domestic debt service in 2015, as a percentage of the total public debt service were 6.02 and 93.98 percent, compared to 6.30 and 93.70 percent in 2014, respectively.

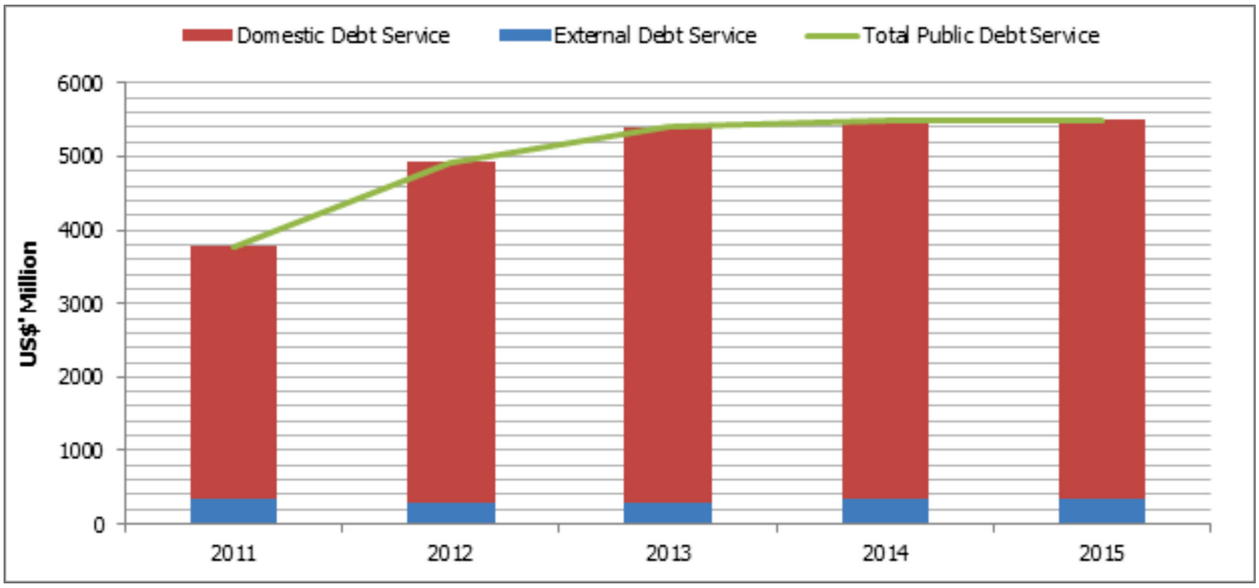
Table 3.2: FGN's Total Public Debt Service, 2011-2015 (US$' Million)

	2011	2012	2013	2014	2015
External Debt Service	351.62	293.00	297.32	346.72	331.06
% Share of Total	(9.30)	(5.96)	5.39	(6.30)	(6.02)
Domestic Debt Service	3,429.42	4,625.72	5,223.35	5,153.63	5,168.18
% Share of Total	(90.70)	(94.04)	94.61	(93.70)	(93.98)
	3,781.04	**4,918.72**	**5,520.67**	**5,500.35**	**5,499.24**

Source: DMO
Official CBN Exchange Rate of ₦197.00/US$1 as at 31/12/2015, was used for 2015

Figure 3.2 shows that the FGN's total debt service payments recorded an upward trend from 2011 to 2013, and thereafter, trended flat between 2014 and 2015. The external debt service payments have steadily witnessed a downward trend, while domestic debt service have exhibited upward movement since 2011, reflecting increases in the quantum of domestic borrowings and the associated high domestic cost of funds used to finance budget deficit over the years.

Figure 3.2: Trends in FGN's Total Debt Service, 2011-2015



Source: DMO

3.3 Nigeria's External Debt Stock

Nigeria's external debt stock outstanding was US$10,718.43 million as at end of December, 2015, compared to US$9,711.45 million as at end of the corresponding period in 2014 (Table 3.3). This represents an increase of US$1,006.98 million or 10.37 percent over the level at the end of December, 2014, as a result of additional disbursements from existing multilateral and bilateral creditors, as well as net adverse cross exchange rate movements between the different currencies in the external loan portfolio. Over the years, concessional multilateral debt has been the major source of external debt. In 2015, it represented 70.54 percent, followed by bilateral and commercial debts, which accounted for 15.47 and 13.99 percent of the total external debt stock, respectively.

Table 3.3: FGN's External Debt Outstanding by Source, 2011-2015 (US$' Million)

SOURCE	2011	2012	2013	2014	2015
A. Official:					
1. Bilateral	453.83	703.03	1,025.70	1,412.07	1,658.00
2. Multilateral	4,568.92	5,267.42	6,275.20	6,799.36	7,560.43
Sub-Total	5,022.75	5,970.45	7,300.90	8,211.43	9,218.43
B. Private:					
1. Eurobonds	500.00	500.00	1,500.00	1,500.00	1,500.00
2. Other Commercial*	143.82	56.63	21	0	0
Sub-Total	643.82	556.63	1,521.00	1,500.00	1,500.00
Grand Total	**5,666.57**	**6,527.07**	**8,821.90**	**9,711.45**	**10,718.43**
Creditor Category as % of Total					
A. Official:					
1. Bilateral	8.01	10.77	11.63	14.54	15.47
2. Multilateral	80.63	80.70	71.13	70.01	70.54
Sub-Total	88.64	91.47	82.76	84.55	86.01
B. Commercial:					
1. Eurobonds	8.82	7.66	17	15.45	13.99
2. Other Commercials*	2.54	0.87	0.24	0.00	0.00
Sub-Total	11.36	8.53	17.24	15.45	13.99
Grand Total	**100**	**100**	**100**	**100**	**100**

Source: DMO
Based on CBN Official Exchange Rate of $1 to ₦197 as at December 31, 2015
*Loans from China Commercial Creditors (Alcatel, ZTE & CMEC) were fully repaid in 2014, while other China loans are captured under Bilateral.

3.4 Nigeria's External Debt Service

The external debt service was US$331.06 million as at end of December, 2015, compared to US$346.72 million as at end of December, 2014, representing a decrease of US$15.66 million or 4.52 percent. Table 3.4 shows that significant share of external debt service payments were to the Multilateral and Bilateral creditors accounting for US$138.65 million or 42.00 percent and US$59.42 million or 18.00 percent of the total external debt service, respectively. The sum of US$91.26 million or 28.00 percent was paid to the holders of Eurobonds, while the remaining US$41.73 million or 13 percent was payment in respect of the outstanding Oil Warrants and Agency Fees[3]. Table 3.4 shows the breakdown of debt service by creditor category.

Table 3.4: FGN's External Debt Service, 2011-2015 (US$' Million)

SOURCE	2011	2012	2013	2014	2015
A. Official					
1. Bilateral	51.52	45.28	41.08	48.93	59.42
2. Multilateral	172.27	126.92	142.89	152.74	138.65
B. Commercial					
1. Eurobonds	16.88	33.75	33.75	91.26	91.26
2. China Loans (Alcatel, ZTE, CMEC)	69.22	45.32	37.88	12.06	0
C. Others					
1. Oil Warrants[1]	41.72	41.72	41.72	41.72	41.72
2. Agency Fees	0.01	0.01	0.01	0.01	0.01
Grand Total	**351.62**	**293.00**	**297.33**	**346.72**	**331.06**

Source: DMO

3.5 Federal Government's Domestic Debt Stock

The securitized Federal Government's domestic debt stock outstanding was ₦8,837.00 billion as at end of December, 2015, compared to ₦7,904.02 billion as at end of December, 2014. This increase of ₦932.98 billion or 11.80 percent was attributed to the net issuances of domestic debt used to part-finance the 2015 appropriated budget deficit and refinancing of matured securities. Table 3.5 shows that FGN's domestic debt stock comprised mainly FGN Bonds (65.73 percent), Nigerian Treasury Bills (31.38 percent) and Treasury Bonds (2.90 percent) as at end of December, 2015.

Table 3.5: FGN's Domestic Debt Outstanding by Instruments, 2014 & 2015 (₦' Billion)

INSTRUMENT	2014	2015
FGN Bonds	4,792.28	5,808.14
(% share of Total)	(60.63)	(65.73)
Nigerian Treasury Bills	2,815.52	2,772.87
(% share of total)	(35.62)	(31.38)
Treasury Bonds	296.22	255.99
(% share of total)	(3.75)	(2.90)
Total	**7,904.02**	**8,837.00**

Source: DMO

[3] These are payments made in respect of the outstanding Oil Warrants associated with the Par Bonds of the London Club, which was exited in 2007, including the Legal Advisory Services for the transactions. The Oil Warrants originally consisted of 1,758,796 million units, worth US$400 million in value, with an annual service obligation of US$52.70 million. In 2007, the Federal Government repurchased 396,154 (20.98%) units of the Oil Warrants, leaving a balance of 1,390, 642 units. The annual debt service obligations in respect of the remaining 1,390, 642 units of Oil Warrants amounts to US$41.72 million. The Principal amount of the Bonds will be repaid by a single payment by November, 2020.

3.6 FGN's Domestic Debt Service

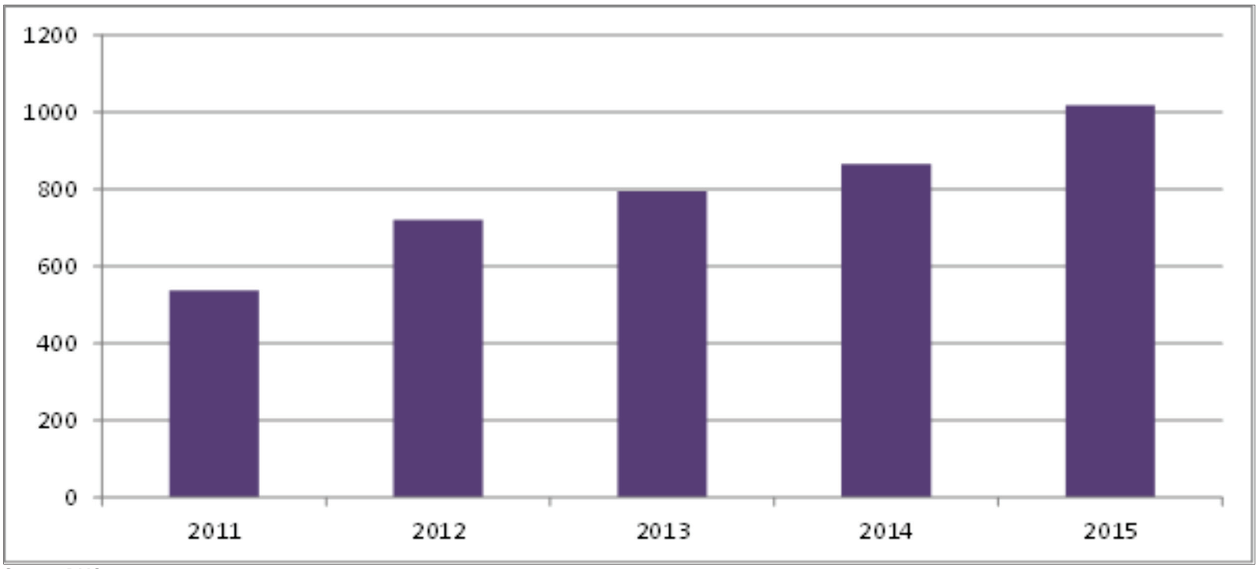
The FGN's domestic debt service as at end of December, 2015, was ₦1,018.13 billion compared to ₦865.81 billion in the corresponding period of 2014, representing an increase of ₦152.32 billion or 17.59 percent (Table 3.6). This debt service consisted of principal repayment of ₦25.00 billion and interest payments of ₦993.13 billion. By instrument-type, FGN Bonds debt service accounted for 62.41 percent of the total debt service payments, while payments in respect of the Nigerian Treasury Bills and Treasury Bonds were 31.83 and 5.76 percent, respectively. The trend analysis shows a continued rise in FGN's domestic debt service payments from 2011 to 2015, which was attributed to the increase in domestic debt stock, as well as the higher interest rates, which led to the rise in the cost of borrowing in the domestic debt market (Figure 3.3).

Table 3.6: FGN's Domestic Debt Service Payments, 2011 - 2015 (₦' Million)

Instruments	2011	2012	2013	2014	2015
NTBs	186,723.14	310,792.71	262,767,69	300,267.31	324,062.86
FGN Bonds	293,794.55	354.078.61	482,415.75	511,778.24	635,432.78
Treasury Bonds	56,639.13	55,680.63	48,916.56	53,763.63	58,635.13
Development Stock	233.75	0.00	0.00	0.00	0.00
Total Debt Service	**537,390.57**	**720,549.95**	**794,104.93**	**865,809.18**	**1,018,130.76**

Source: DMO

Figure 3.3: Trends in FGN's Domestic Debt Service Payments, 2011-2015 (₦' Billion)



Source: DMO

3.7 States' & FCT's Domestic Debt by Maturity Structure

The actual domestic debt of States and FCT was ₦1,655,178.71 million as at end of December, 2014. The analysis of the States and FCT's domestic debt by maturity shows that the medium/long-term debt has the largest share and accounted for 54 percent, while the short-term debt accounted for 46 percent of the portfolio as shown in Table 3.7.

Table 3.7: States' & FCT's Domestic Debt by Maturity, 2011-2014 (₦' Million)

Description	2011	2012	2013	2014
Short-Term Debt (ST)[1]	567,315.53	682,726.06	522,740.29	893,796.50
Medium/Long-Term Debt (MLT)[2]	665,979.11	868,924.07	1,014,731.16	761,382.20
Total	**1,233,294.64**	**1,551,650.13**	**1,537,471.45**	**1,655,178.71**
ST as a % of Total	46	44	34	54
MLT as a % of Total	54	56	66	46

Source: DMO

[1] Debts with up to 1 year remaining maturity.

[2] Debts with more than I year remaining maturity.

Note: The actual States domestic debt data for 2015 was not available as at the time of the DSA exercise, as the collation and validation process were still on-going.

CHAPTER FOUR

RISK ANALYSIS OF FGN'S TOTAL PUBLIC DEBT

4.1 Introduction

The main objective of public debt management is to ensure that the Federal Government's financing needs are met at minimal cost and risk, through sourcing of funds from both external and domestic sources. This chapter assesses the costs and risks of FGN's total public debt portfolio and their impacts on public debt management in Nigeria. These risks include interest rate, refinancing, exchange rate, credit and contingent liabilities risks.

4.2 Risk Analysis of FGN's Total Public Debt Portfolio

Table 4.1 summarizes the cost and risk indicators of the FGN's total public debt portfolio as at end of December, 2015.

Table 4.1: Cost and Risk Indicators of FGN's Total Debt Portfolio as at end-December, 2015

Cost and Risk Indicators		External Debt	Domestic Debt	Total Debt
PV of Debt (including States' Domestic Debts) as % of GDP		2.13	10.89	13.02
Cost of Debt	Weighted Average Interest Rate (%)	1.74	13.00	10.77
Refinancing Risk	Average Time-to-Maturity (ATM) years	14.39	5.35	7.15
	Debt Maturing in 1yr (% of Total)	1.16	36.08	29.15
	Debt Maturing in 1yr (% of GDP)	0.03	3.21	3.24
Interest Rate Risk	Average Time-to-Re-Fixing (ATM) years	13.86	5.35	7.04
	Debt Refixing in 1yr (% of Total)	6.40	36.08	30.19
	Fixed Rate Debt (% of Total)	94.77	100.00	98.96
Foreign Exchange (FX) Risk	FX Debt (% of Total Debt)	-	-	19.84

Source: Debt Management Strategy, 2016-2019

Table 4.2 shows the actual cost and risk indicators of the FGN's total public debt portfolio as at end of December, 2015 and the projected indicators for the period of 2016-2019.

Table 4.2: Cost and Risk Indicators of FGN's Total Debt Portfolio, 2015-2019

Cost and Risk Indicators		2015	2016	2017	2018	2019
Cost of Debt	Weighted Average Interest Rate (%)	10.77	10.77	9.14	8.77	8.74
Refinancing Risk	ATM (Years)	7.15	10.94	10.97	10.74	10.71
	Debt Maturing in 1 Yr (% of Total)	29.15	15.84	9.93	10.55	9.17
	Debt Maturing in 1 Yr (% of GDP)	3.24	3.02	1.76	1.12	1.33
Interest Rate Risk	ATR (Years)	7.04	10.19	10.20	9.98	9.95
	Debt Re-fixing in 1 Yr (% of Total)	30.19	14.50	12.95	15.18	16.26
	Fixed Rate Debt (% of Total)	98.96	94.44	93.90	93.46	92.88
FX Risk	FX Debt (% of Total Debt)	19.85	31.85	34.85	36.66	39.86

Source: DMO

4.3 Average Cost of FGN's Portfolio

The weighted average interest rate of FGN's total debt portfolio was 10.77 percent as at end of December, 2015 compared to 9.25 percent in 2014, representing an increase of 16.43 percent (Table 4.1). The large share of concessional debt in the external debt portfolio accounting for about 82.20 percent helped to lower the average interest rate on external debt at 2.06 percent as at end of December, 2015, and the overall cost of debt in general. The weighted average interest rate of domestic debt portfolio was relatively high, reflecting CBN's monetary policy management stance, with the monetary policy rate at 13.00 percent for the most part of 2015, and was reduced to 11.00 percent only in November, intended to inject liquidity in the financial system. Table 4.2 shows that the cost of debt is expected to be moderated in the medium-term, as weighted average interest rate is expected to marginally fall from 10.77 percent as at end of December, 2015 to 8.74 percent by end-2019.

4.4 Interest Rate Risk

The exposure of FGN's total debt portfolio to interest rate risk was low, with Average Time-to-Refixing (ATR) of the total public debt portfolio at 7.04 years: ATR for domestic debt was 5.35 years, while external debt was 13.86 years (Tables 4.1 and 4.3). This was attributed to the high proportion of fixed interest rate debt in the country's public debt portfolio of about 98.96 percent as at end of December, 2015, which were not susceptible to interest rate changes. In respect of the floating rate debt in the portfolio, even though it still remains relatively low, it increased significantly from 0.47 percent in 2014 to 1.04 percent as at end of December, 2015 because of the IBRD loan contracted in 2015, for

Development Finance Projects. Table 4.3 shows the trend of interest rate risk indicators, 2011-2015.

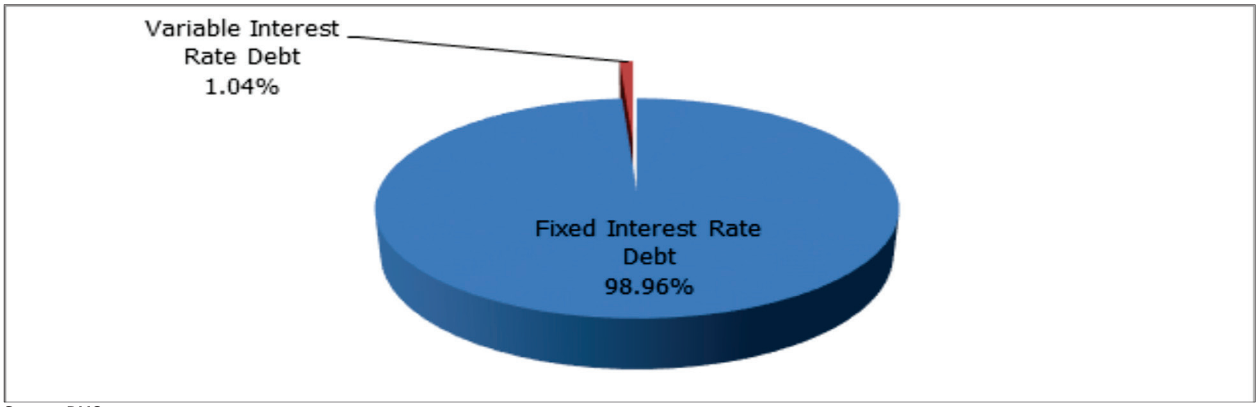
Table 4.3: Trend in Interest Rate Risk Indicators, 2011-2015

Year	2011	2012	2013	2014	2015
Fixed Interest Rate Debt (%)	99.86	71.83	99.41	99.53	98.96
Variable Interest Rate Debt (%)	0.14	28.17	0.59	0.47	1.04
External Debt - Average Time-to-Re-fixing (Years)	15.90	16.20	14.40	13.90	13.86
Domestic Debt - Average Time-to-Re-fixing (Years)	4.10	4.20	4.60	5.40	5.35
Total Debt - Average Time-to-Re-fixing (Years)	5.80	5.90	5.80	6.40	7.04

Source: DMO

The proportion of FGN's total public debt that was due for re-fixing in one year at 30.19 percent in 2015, was high, reflecting high exposure of the portfolio to interest rate risk. The domestic debt component with 36.08 percent re-fixing in one year indicates a significant exposure to high interest rate risk, due to the high proportion of short-term debt (NTBs). Accordingly, the policy to gradually reduce the issuance of the short-term debt in favour of long-term debt would help to mitigate this risk, as well as help to attain the strategic objective of 75:25 ratio for long and short-term debt in the domestic debt portfolio.

Figure 4.1: Interest Rate Composition of FGN's Total Debt as at end-December, 2015



Source: DMO

The debt re-fixing in one year as a percentage of FGN's total debt portfolio is expected to reduce significantly from 30.19 percent as at end-December, 2015 to 16.26 percent by end-2019. On the other hand, the ATR is expected to increase from 7.04 years in 2015 to 9.95 years by end-2019, which indicates improvement in the structure of the portfolio, reflecting the dominance of fixed rate debt at 92.88 percent by end-2019 (Table 4.2).

4.5 Refinancing Risk

The refinancing risk in the portfolio was high, but within a tolerable limit as at end of December, 2015. The Average Time-to-Maturity (ATM) of the total public debt portfolio was 7.15 years, which reflected the impact of the weight of short-term debt in the portfolio. The ATM of external debt portfolio at 14.39 years, reflected high proportion of concessional loans with original maturity periods of up to 40 years, while the ATM of domestic debt at 5.35 years was attributed to the significant share of short-term debt (NTBs). Table 4.4 shows that the proportion of FGN's total public debt maturing in one year was large at 29.15 percent in 2015. This comprised 36.08 and 1.16 percent for domestic and external debt, respectively, reflecting a high refinancing risk in the domestic debt portfolio in 2016. It highlights the need for a rebalancing of the domestic debt portfolio and reducing the quantum of issuance of short-term debt, in order to attain the debt strategy target of 75:25 recommended in the Debt Management Strategy, 2016-2019, for long and short-term debts, respectively. Table 4.4 illustrates the trend of refinancing risk from 2011 to 2015.

Table 4.4: Trend in Refinancing Risk Indicators, 2011-2015

Year	2011	2012	2013	2014	2015
Debt Maturing in 1 year (%)	26.54	38.80	35.00	33.00	29.15
External Debt – Average Time-to-Maturity (Year)	15.90	16.30	14.40	14.90	14.39
Domestic Debt - Average Time-to-Maturity (Year)	4.06	4.20	4.60	5.40	5.35
Total Debt - Average Time-to-Maturity (Year)	5.84	5.90	5.80	6.50	7.15

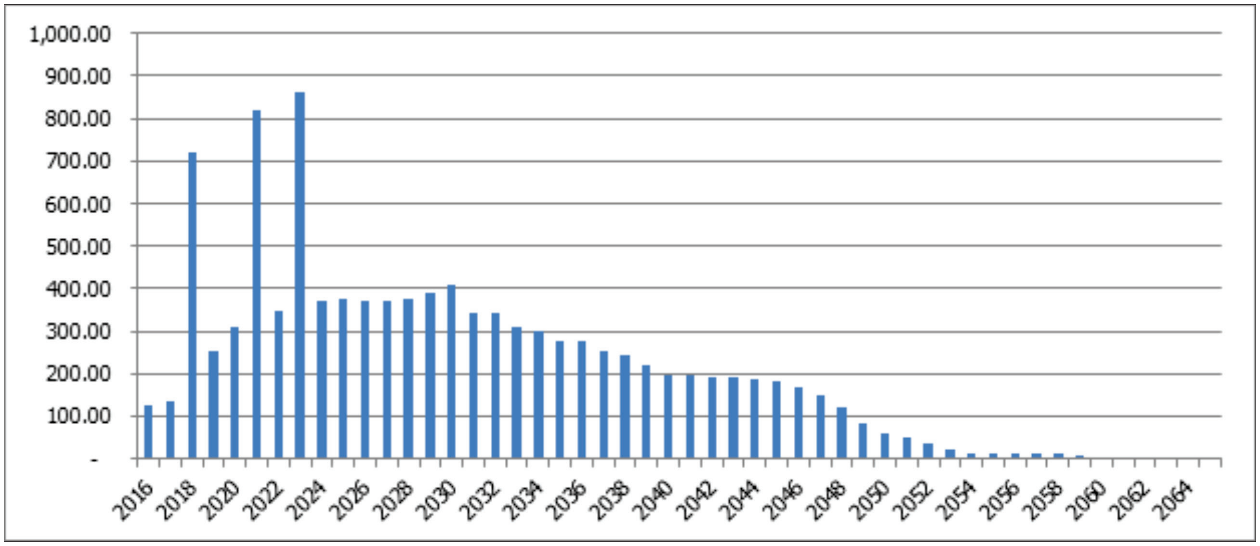
Source: DMO

The debt maturing in one year as a percentage of FGN's total debt portfolio is expected to drop significantly from 29.15 percent as at end-December, 2015 to 9.17 percent by end-2019. The ATM is expected to increase from 7.15 years as at end of December, 2015 to 10.71 years by end-2019. The expected increase in the maturity structure would reduce the exposure of the portfolio to refinancing risk in the medium-term (Table 4.2).

4.6 Redemption Profile

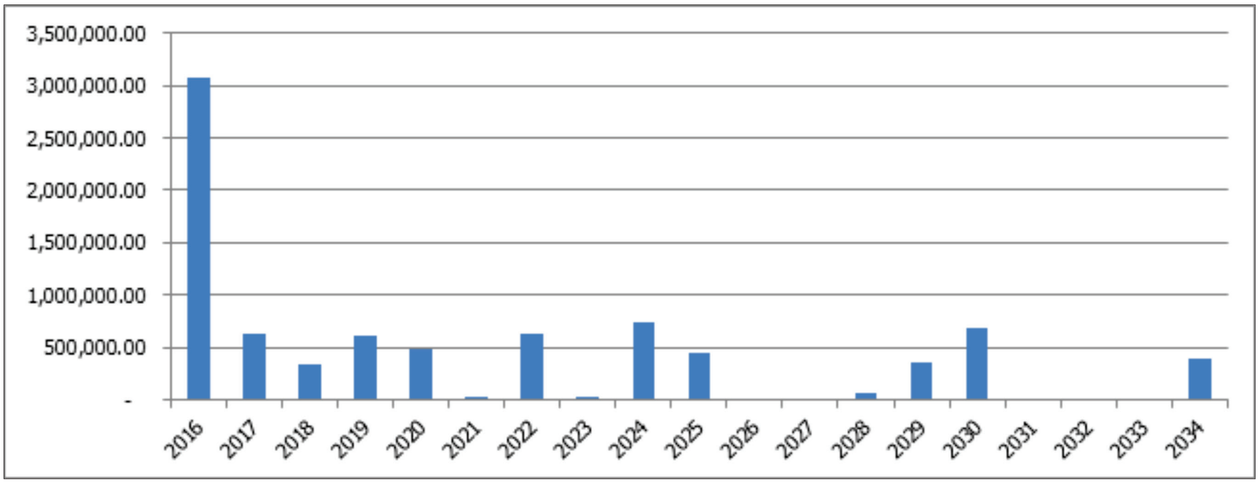
Figure 4.2 shows the redemption profile of the external debt of the country beyond 2015, which depicts a smooth profile. The huge spikes noted in 2018, 2021 and 2023 for external debt portfolio are attributable to the redemption of the three maturing Eurobonds, namely: the debut 6.75% JAN 2021 US$500 million (10-year Eurobond issued in 2011) and the US$1 billion dual-tranche Eurobonds: 5.125% JUL 2018 US$500 million (5-year) and 6.375% JUL 2023 US$500 million (10-year) issued in 2013. However, the redemption profile for domestic debt (Figure 4.3), reflects a significant level of refinancing risk, due to the high proportion of NTBs in the domestic debt portfolio that would be required to be redeemed in 2016.

Figure 4.2: Nigeria's External Debt Redemption Profile, Beyond 2015 (US$' Million)



Source: DMO

Figure 4.3: FGN's Domestic Debt Redemption Profile, Beyond 2015 (₦' Million)



Source: DMO

4.7 Exchange Rate Risk

The exposure of the debt portfolio to exchange rate risk was very low, given that significant share of the debt is denominated in domestic currency relative to the total public debt as at end of December, 2015. The current composition of external debt as a percentage of FGN's debt portfolio was 20.00 percent in 2015 (Table 4.5). This shows the length of the path to achieving the strategic mix of 60:40 for domestic and external debts, respectively, as outlined in the current Debt Management Strategy, 2016-2019. Table 4.5 shows the trend in the exchange rate risk indicators from 2011-2015.

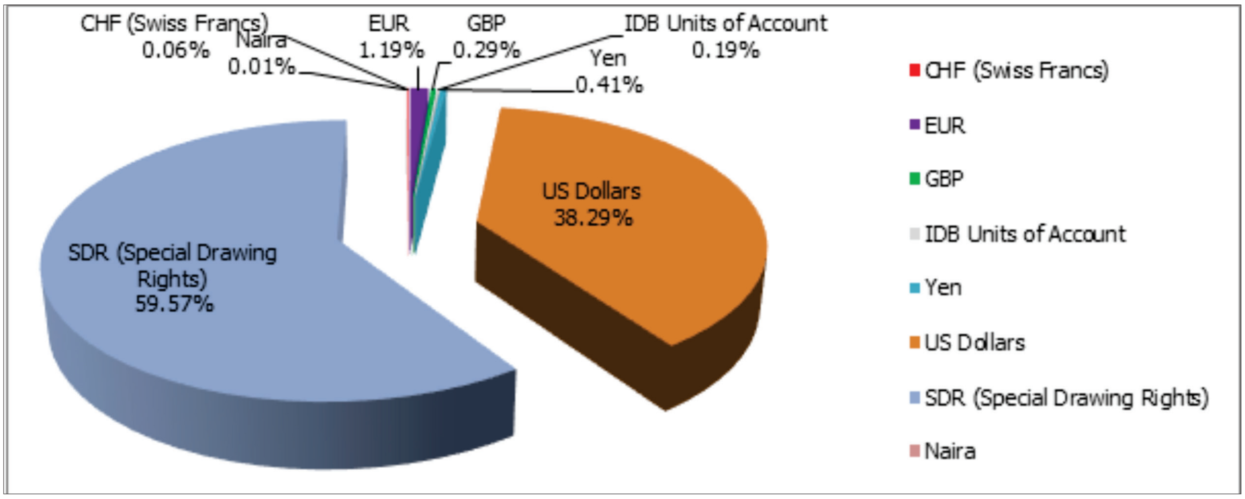
Table 4.5: Trend in Exchange Rate Risk Indicators, 2011-2015

Year	2011	2012	2013	2014	2015
Domestic Debt (%)	85	87	84	84	80
External Debt (%)	14	13	16	16	20
Total Debt	100	100	100	100	100

Source: DMO

The external debt portion in the debt portfolio mix is expected to gradually increase from 31.85 percent in 2016 to approximately 40.00 percent by end-2019, thereby attaining the strategic mix of 60:40 for the domestic and external debts in the medium-term (2019) (Table 4.2).

Figure 4.4: Currency Composition of Nigeria's External Debt as at end-December, 2015



Source: DMO

Figure 4.4 further shows that external debt portfolio was denominated in various currencies, namely: Swiss Franc (CHF), European Euro (EUR), British Pound Sterling (GBP), Islamic Dinar(ID), Japanese Yen (JPY), United States Dollar (US$), Special Drawing Rights (SDR) and Nigerian Naira[4] (₦), which respectively constituted 0.06, 1.19, 0.29, 0.19, 0.41, 38.29, 59.57 and 0.01 percent, in 2015. The currency composition of external debt reflects a higher exposure to US Dollar and the SDR[5] than the other currencies. However, external debt service payment obligation, which is made in convertible currencies helped to provide a hedge against foreign exchange risk associated with unfavourable trend in currency exchange rate movements. The funding of external debt service through the External Creditors Funding Account (ECFA) denominated in US Dollars further provided strong cushion against exchange rate risk.

Table 4.6: Currency Composition of External Reserve Asset as at end-December, 2015

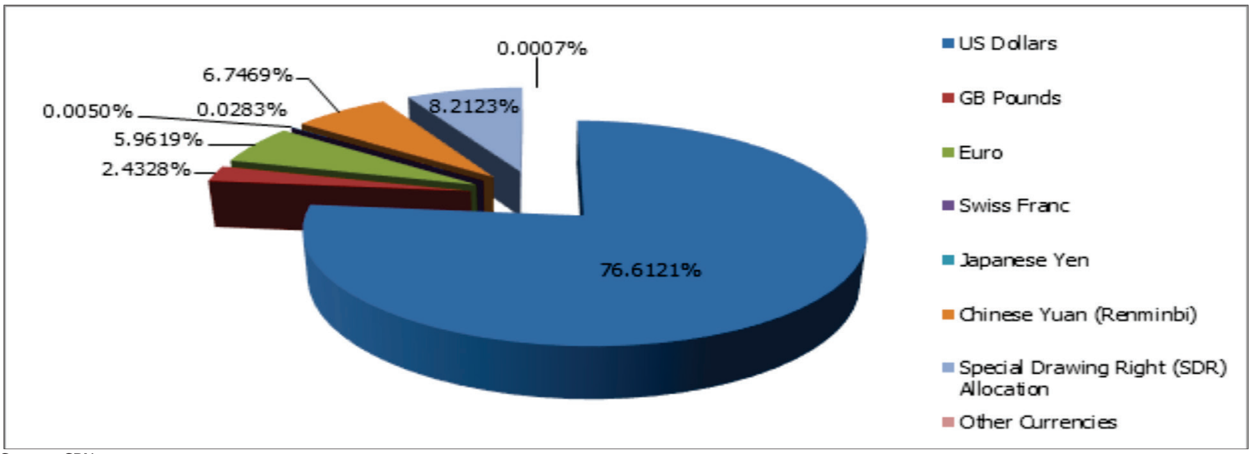
Currency	USD Equivalent	% of Total
US Dollars	21,671,748,310.30	76.6121
GB Pounds	688,184,889.95	2.4328
Euro	1,686,470,944.11	5.9619
Swiss Franc	1,424,926.72	0.0050
Japanese Yen	8,015,221.71	0.0283
Chinese Yuan (Renminbi)	1,908,534,026.26	6.7469
Special Drawing Right (SDR) Allocation	2,323,053,894.80	8.2123
Other Currencies	211,330.12	0.0007
TOTAL	**28,287,643,543.97**	**100**

Source: CBN

[4] The Naira component of the external debt portfolio is an ADF loan contracted in respect of the multi-currency project (Bamenda-Manfe-Abakaliki-Enugu Road Corridor), which is denominated in Fund Unit of Account and disbursed in various currencies, which include US dollar, Euro, GBP, and Naira. The Naira portion was disbursed in June, 2015.

[5] Special Drawing Rights (SDRs) is a virtual currency, whose value is currently based on a basket of currencies (Yen, Euro, Pound, and Dollar). It was created by IMF as an international reserve asset to supplement the existing official reserves of member countries. The International Development Association (IDA) of the World Bank extends loans to countries on amount equivalent to SDRs. The SDR remains the single largest share of the Nigeria's external debt portfolio accounting for 59.57 percent or US$6,290.19 million as at end-December, 2015.

Figure 4.5: Currency Composition of External Reserves as at end-December, 2015



Source: CBN

Table 4.6 and Figure 4.5 show that the composition of the country's external reserves position by currency as at end of December, 2015, was US$28.29 billion. The proportion of currency components of the foreign reserve assets were US$ (76.6121 percent), GBP (2.4328 percent), Euro (5.9619 percent), CHF (0.0050 percent), JPY (0.0283 percent), Chinese Yuan (6.7469 percent), SDR (8.2123 percent) and other currencies (0.0007 percent). The currency composition of external debt portfolio and currency composition of the country's external reserves indicate some similarities, though disproportionately (Table 4.7). The disproportionate distribution does not, however, pose any significant risk to the external debt portfolio.

Table 4.7: Composition of External Debt & Reserve Assets as at end-December, 2015 (in percent)

Currencies	US$	GBP	EURO	CHF	IDB	JPY	Yuan	SDR	Naira	Others
External Debt: Currency Composition	38.29	0.29	1.19	0.06	0.19	0.41	-	59.57	0.01	-
External Reserve: Currency Composition	76.6121	2.4328	5.9619	0.0050	-	0.0283	6.7469	8.2123	-	0.0007

Source: DMO

4.8 Credit Risk (FGN's On-lent Loans to MDAs)

As at end of December, 2015, there were eleven (11) outstanding on-lent loans by the FGN to various MDAs, amounting to ₦183.56 billion, compared to ₦186.01 billion in the corresponding period of 2014. The loans were extended by the FGN to the MDAs to fund the development of infrastructure and special projects in key sectors of the economy, and repayments have been relatively effective (Table 4.8).

Table 4.8: Principal Outstanding On-lent Loans as at December 31, 2015

S/N	MDA	Facility	Loan Amount (₦)	Principal Amount Outstanding (₦)
1	Federal Capital Territory Administration (FCTA)	₦15 Billion FGN Funding of Health and Education Projects in the FCT	15,000,000,000.00	7,091,145,754.66
2	Federal Ministry of Finance (FMF)	₦6.3 Billion Pioneer Consumer Car Finance Scheme for Public Servants	6,300,000,000.00	3,028,772,027.22
3	Federal Ministry of Transport (FMoT)	₦12.5 Billion Nig. Railway Revitalization (25 Locomotives)	12,500,000,000.00	12,500,000,000.00
4	Ministry of Defence	₦35 Billion Funding of Peace Keeping Operations	35,000,000,000.00	11,275,102,824.49
5	Ministry of Mines and Steel Development	₦2.24 Billion Ajaokuta/ NIOMCO Staff Salary Arrears	2,239,175,142.72	2,239,175,142.72
6	Nigerian Television Authority (NTA)	₦4.5 Billion Loan for Upgrading of NTA's Broadcast Equipments	4,500,000,000.00	2,431,265,480.82
7	Federal Capital Territory Administration (FCTA)	₦20 Billion Seed Money for Infrastructural Development of Four Districts of the FCT	20,000,000,000.00	20,000,000,000.00
8	Federal Mortgage Bank of Nigeria (FMBN)	₦5 Billion for the development of the housing sector of the economy granted to FMBN.	5,000,000,000.00	5,000,000,000.00
9	Bureau of Public Enterprises (BPE)	Settlement of ₦63.03 Billion Loan Facility granted to Transcorp Plc for NITEL/ MTEL Buy-Out	63,030,000,000.00	63,030,000,000.00
10	Bureau of Public Enterprises (BPE)	NITEL/MTEL Terminal Benefits	54,552,000,000.00	54,552,000,000.00
11	Bank of Industry (BOI)	Indebtedness of the defunct Nig. Bank for Commerce and Industry to the FGN	2,500,711,000.00	2,410,293,267.05
	TOTAL		**220,621,886,142.72**	**183,557,754,496.96**

4.9 FGN's Contingent Liabilities

Table 4.9 shows that the amount of contingent liabilities decreased marginally from ₦1,693.98 billion in 2014 to ₦1,656.47 billion in 2015, representing a decline of ₦37.51 billion or 2.21 percent. The decrease in contingent liabilities was due to the reduction in the value of the outstanding Bonds issued by the Federal Mortgage Bank of Nigeria, and the pension arrears for MDAs. As a percentage of the GDP, the outstanding contingent liability of the FGN was 1.72 percent of GDP in 2015, as against 1.90 percent in 2014. In 2015, there were new FGN guarantees in favour of the Nigerian Mortgage Refinance Company Plc and World Bank Partial-Risk Guarantee in support of Azura-Edo IPP.

Table 4.9: FGN's Contingent Liabilities, 2011-2015 (₦' Billion)

S/N	Liability Type	2011	2012	2013	2014	2015
1.	AMCON Guarantee	1,742.00	1,742.00	1,742.00	-	-
2.	Local Contractors Debts	233.942-00	233.942.00	233.942.00	233.942.00	233.942.00
3.	Federal Mortgage Bank of Nigeria	-	32.00	32.00	32.00	6.91
4.	Guarantee on Agriculture	-	174.707.00	-	-	-
5.	Nigerian Export-Import (NEXIM) Bank	-	-	-	39.400.00	39.40
6.	FCDA – Katampe Infrastructure Project	-	-	-	-	7.441.00
7.	Nigeria Mortgage Refinance Company Plc	-	-	-	-	8.00
8.	Lekki Port LFTZ Enterprise – Lekki Deep Sea Port	-	-	-	157.60	157.60
9.	World Bank Partial-Risk Guarantee in support of Azura-Edo IPP	-	-	-	-	46.689.00
10.	Pension Arrears for MDAs	1,401.98	1,322.427.00	1,271.062.00	1,231.035.00	1,156.49.00
	Total	**3,469.92**	**3,585.08**	**3,279.00**	**1,693.977**	**1,656.467**

Notes:

1. The FGN Guarantee to AMCON in respect of the ₦1.742 trillion 3-year Zero-coupon AMCON Tradable Bond expired on December 31, 2013, following the redemption of AMCON Bonds. The Guarantee did not crystallize.
2. The FGN Guarantee was given to cover the ₦233,942,080,700.00 Face Value of the 5-year 2016/2017 Split Coupon Bonds issued by the Special Purpose Vehicle (SPV) set up for the resolution of the Local Contractors Debts. ₦74,655,295,000.00 (Principal) will be redeemed in 2016 and the balance in 2017, while the first coupon payment was settled on June 8, 2015. The Sinking Fund Account is being funded from the annual budgets of the Federal Government of Nigeria (FGN).
3. FGN Guarantee of FMBN Bond issued to enable the Bank raise funding from the capital market to refinance the sale of Federal Government non-essential houses under the monetization programme of the Government.
4. Unconditional guarantee to the financiers (Banks) to cover 70% of the loan principal payment under the Programme for financing the supply of seeds and fertilizers to farmers for the 2012 farming season. The Client was the Federal Ministry of Agriculture and Rural Development. The Guarantee expired in 2012 and did not crystallize
5. FGN Guarantee to NEXIM for the US$200 million Master Line of Credit from African Development Bank (AfDB). Exchange rate: ₦197/$. The AfDB multi tranche line of credit is to finance part of the cost of the Export Oriented Small and Medium Enterprises financing programme of the Nigerian Export Import (NEXIM) Bank. The tenor is for 10 years. NEXIM Bank has opened Debt Service Reserve Account (DSRA) and maintain collection accounts for beneficiary clients for their operations from which the DSRA would be funded prior to maturing periods of interest and principal repayments. There is a lien on the DSRA which state that NEXIM cannot withdraw from the account without the consent of the DMO.
6. The Guarantee was issued, on behalf of the Federal Capital Development Authority (FCDA), in favour of FBN Capital Limited and FBN Trustees Limited, in respect of a bank facility granted to Deanshanger Projects Limited for the provision of integrated civil infrastructure to Katampe District, Abuja. The current outstanding amount confirmed by FCDA is ₦7,440,504,380.68, excluding accrued interest.
7. The Guarantee is to enable NMRC raise long term funds from the capital market by issuing notes for the purpose of refinancing or purchasing mortgages created by Eligible Mortgage Lenders. N8 billion has been utilized out of the Guarantee. Total Guarantee available is ₦440 billion, with an initial limit of ₦100 billion, to be utilized in two tranches of ₦50 billion each, subject to further approvals based on a confirmation of Programme's efficacy.
8. FGN Guarantee in favour of Lekki Port LFTZ Enterprise (Concessionaire) to cover the sum of US$800 million (₦157,600,000,000.00 converted at ₦197/$) of the investment by the Concessionaire for the purpose of funding the construction of a Deep Sea Port at Lekki Lagos, Nigeria, on a Build, Own, Operate and Transfer basis, for a period of forty-five years, for and on behalf of the Nigerian Ports Authority.
9. World Bank Partial Risk Guarantees in the sum of US$237 million (₦46,689,000,000.00 converted at ₦197/$), comprising Debt Mobilization Guarantee of US$117 million and a Liquidity Guarantee of US$120 million, in support of the 450 megawatts Azura-Edo Independent Power Project (IPP). The Federal Government of Nigeria (FGN) entered into Indemnity Agreement with the International Bank for Reconstruction and Development (IBRD) - World Bank, in 2015, to unconditionally and irrevocably reimburse to the World Bank amounts paid by the Bank directly or indirectly in relation to or arising from the IBRD Guarantee and to undertake such other obligations to the Bank as are set forth in the Indemnity Agreement.
10. Data provided by PENCOM: Outstanding Retirement Benefits Liability of the FGN for certain categories of its employees. The last employee would be retiring in 2039.

CHAPTER FIVE

UNDERLYING ASSUMPTIONS OF THE 2016 DSA

5.1 Baseline Scenario Assumptions

The Baseline Scenario is premised on assumptions outlined in the macroeconomic framework in the 2016 Federal Government of Nigeria's annual Budget and the provisional MTEF, 2017-2019 (Box 5.1).

Box 5.1: Baseline Scenario Assumptions

Real and Nominal GDP Growth Rates: The real and nominal GDP growth rates are assumed at 0.1 percent and 7.16 percent for 2016, respectively. The real GDP for the 2016 Budget was downgraded from 4.37 percent by 4.27 percentage points. This was due to the sharp decline in crude oil prices in the international market and fall in domestic oil production, leading to dwindling government revenue, depletion of external reserves, adoption of foreign exchange restrictions, sharp depreciation of the Naira exchange rate against the dollar, low household and government spending, and decline in economic activities. In 2017, these conditions are expected to improve, and real and nominal GDP growth rates are projected at 3.45 percent and 9.06 percent respectively. The real and nominal GDP are expected to grow on average by 4.49 percent and 7.51 during 2016-2036 respectively.

Inflation Rate: Headline inflation on year-on-year basis is assumed at 21.17 percent in 2016 and expected to decline to 16.21 percent in 2017. The rising inflation rate in 2016 is based on the depreciation of the Naira against the dollar leading to high costs of imported goods, rising food prices and increase in the price of petroleum products, as well as transport cost. With the envisaged improvement in food supply, availability of petroleum products and stability in exchange rate, inflation for 2016-2036 is expected to average 13.62 percent per annum.

Crude Oil Production: The crude oil production level of 2.2 million barrels per day (mbpd) assumed in 2016 was maintained for 2017 through 2019, and it is expected to increase slightly to 2.24 million barrels per day (mbpd) between 2020 and 2036, due to concerted Government efforts to address pipeline vandalism, renewed militancy in the Niger Delta, leakages and wastages, crude oil theft and illegal bunkering. It is also expected that the recent deregulation of the downstream oil sector will bring about new investments and increase productivity.

Crude Oil Benchmark Price: The 2016 budget oil price benchmark of US$38 per barrel (pb) is expected to increase to US$42.5(pb) in 2017, and further to US$45(pb) in 2018 and US$50(pb) in 2019. The projected increase in global oil prices is predicated on the likely global economic recovery, especially in advanced economies and emerging market economies such as China and USA.

Export: Export growth during the projected period is to be driven by a combination of factors. First, the oil export is expected to increase, driven by sustained domestic production amidst amicable resolution of the Niger Delta crisis, improved investment climate and the expected investments in downstream oil sector. Furthermore, the non-oil export growth is expected to increase, buoyed by government's effort to diversify the economy through policy measures in the agricultural, industrial and solid minerals sectors. In addition, the new flexible exchange rate regime combined with the on-going rehabilitation of key economic infrastructure and improved domestic oil refining capacity, will enhance non-oil export competitiveness and boost their growth and contributions.

Current Account Position: The current account balance is expected to remain in deficit in the short-term, due largely to the instability in the global oil market, lower exports and oil prices. However, in the medium to long-term, the current account is expected to revert to surplus mainly as a result of enhanced export competitiveness, increased private sector investment in the oil sector and increased financial inflows from Nigerians in Diaspora.

Foreign Direct Investments: The slow recovery of the global economy, downturn in oil prices, subdued global trade, weaker capital inflows, rising exchange rates volatilities and the normalization of interest rates in the United States is expected to dampen FDI flows to emerging markets. However, it is expected that this will be counter balanced by investors' continued quest for cheaper labour and lower cost of production in emerging markets, as well as ready demand in frontier economies, including Nigeria. In addition, sustained political stability, improved corporate governance practices, relative exchange rate and foreign exchange market flexibility, improved communication services and sustained administration reforms in the public service would have positive impact on FDIs in the medium to long-term.

Remittances: The improved economic performance resulting from the sustained and effective implementation of government reforms in the public sector, political stability in the country and the flexible foreign exchange rate regime would serve as incentives for Nigerians in diaspora to remit more funds into the economy.

External Reserves: It is expected that the external reserves will remain sufficient to cover above the threshold of 3 months of imports. This is to be driven by the current exchange foreign policy which seeks to curb spurious demand for foreign exchange and fiscal discipline to protect the reserves from depletion.

Fiscal Deficit: The fiscal deficit is projected at ₦2.204 trillion or 2.27 percent of the GDP, averaging ₦2.057 trillion or 1.77 percent of GDP for 2017-2019. This will also average at 0.60 percent of GDP from 2017-2036. This is based on the expected increased inflow of non-oil revenue arising from tax reform, budgetary discipline and projected reduction in personnel costs, due to the full implementation of the Integrated Payroll and Personnel Information System (IPPIS), Treasury Single Account (TSA) and overall improvement in Public Expenditure Management.

Nominal Exchange Rate: The Nominal Exchange Rate is expected to fluctuate mildly in the short-term, but generally would remain stable both in the medium and long-term, because of the stabilization of the CBN's recent reforms of a market-determined exchange rate regime in the inter-bank rate and other measures to stem speculative demands in the foreign exchange market, as well as deregulation of downstream oil sub-sector which is expected to bring in more investments in the oil sector and reduce demand for importation of fuel. The policy, combined with others, will help to stabilize the Naira exchange rate.

New Financing: New financing will entail the maximisation of available funding envelopes from concessional and semi-concessional external sources, taking into account what may be readily available within a given period before exploring other external funding windows, for the financing of key infrastructure projects, in line with the recommendation of the Debt Management Strategy, 2016-2019. The new financing will rely on long-term debt instruments for domestic borrowing and less expensive long-term external financing. The funding strategy supports the movement towards achieving the country's strategic objective of 60:40 ratio for domestic and external debt portfolio, respectively, as well as attaining the 75:25 ratio for long to short-term debts in the domestic debt portfolio. This would minimise refinancing risk, with its associated debt servicing costs. With reclassification of Nigeria as a blend country, there would be a gradual move away from concessional financing and to non-concessional multilateral and commercial sources. The private sector is expected to play a major role in the domestic debt market by accessing more long-term funds for investments in the real sector, as the FGN gradually reduces its domestic debt issuances, to create more borrowing space for corporates.

5.2 Optimistic Scenario Assumptions

The Optimistic Scenario assumes an increase in the growth of the GDP, a decrease in the rate of inflation, an increase in revenue accruing to the FGN as a result of restoration of normalcy in crude oil production and rise in crude oil prices; improvement in other non-oil revenue sources, fiscal deficit and current account balance, together with appreciation of the Naira exchange rate, in view of the expected stability in the new foreign exchange regime. The 2016 DSA under the optimistic scenario considered improvements in a broad range of macroeconomic indicators and variables that could positively impact on the public debt portfolio (Box 5.2).

Box 5.2: Optimistic Scenario Assumptions

Real and Nominal GDP Growth Rates: The real and nominal GDP growth rates are assumed at 0.39 percent and 7.48 percent for 2016, respectively with the expectations of improvement in capital budget releases and spending during the second half of the year, leading to increase in aggregate domestic demand and non-oil production. Faster improvement in the oil and non-oil sectors of the economy are expected in 2017, leading to the growth assumption of 4.89 percent and 10.44 percent for real and nominal GDP, respectively. For the period 2016-2036, the real GDP growth is projected at 8.19 percent on average, while the average growth for the nominal GDP is projected at 6.63 percent due to addition to the existing production capacity with the planned investments in infrastructure and accelerated growth in oil and non-oil output during the period.

Inflation Rate: Inflation rate is projected at 16.96 percent on year-on-year basis by end-2016. Consumer prices are projected to decline to 11.3 percent in 2017 and 9.54 percent on average for 2016-2036. This is based on the expected increase in food production, availability of petroleum products and stability in the exchange rate. The projection assumes that fiscal and monetary policies will be complementary during the period.

Crude Oil Production: Production is projected at 2.20mbpd in 2016 and is expected to average 2.30mbpd in 2017-2019 and 2.45mbpd in 2020-2036 premised on the fact that the various efforts at reducing incidences of pipeline vandalism occasioned by the militancy in the Niger Delta, leakages and wastages from crude oil theft, illegal bunkering and investments in infrastructures in the sector would in the long term impact positively on production.

Crude Oil Price: The price for crude oil at US$38 per barrel (pd) in 2016 is projected to average US$50 (pb) between 2017 and 2019, and US$58.3(pb) between 2020-2036. It is expected that improvements in economic activities of advanced and emerging market economies will increase the demand for oil.

Exports: The growth of exports would be enhanced, driven by the non-oil exports, which are expected to be strengthened by the diversification of the Nigerian economy both in the medium and long-term.

Current Account Position: The current account position will maintain surpluses for the projected period due to increased export growth, improved remittances flows, as well as, lower imports. Under this scenario, exports are expected to grow faster than imports and this will subsist for the period.

Foreign Direct Investments: There would be sustained influx of foreign direct investments owing to enhanced and predictable macroeconomic environment, flexible and stable exchange rate, attractive real interest rate, ease of doing business, political stability, improved security, good infrastructure and robust external reserves.

External Reserves: There would be sustained robustness in the external reserves because of huge accretion to reserves, arising from improved foreign exchange inflows from increased exports growth and improved capital inflows.

Fiscal Deficit: This has been estimated at 2.27 percent of the GDP in 2016, 1.77 percent in 2017, 1.39 percent in 2018 and 1.16 percent in 2019. Although the fiscal gap is projected to widen in the medium-term as Government intensifies its efforts at filling the infrastructural gap, the expected increase in output and non-oil revenue would have counter-balancing effects.

Nominal Exchange rate: The curtailing of spurious demand for foreign exchange and the expected improved foreign exchange inflows from higher exports will help to stabilize the Naira exchange rate.

New Financing: It is assumed that government would access more long-term funds from bilateral and commercial sources, especially from the later to finance huge infrastructure deficit. More corporates, particularly deposit money banks, would take advantage of established sovereign benchmark to show strong presence in the ICM to access relatively less expensive foreign capital to enhance their capital structure and be in a better position to finance the real sector and infrastructural projects.

CHAPTER SIX
RESULTS ANALYSIS

6.0 Introduction

The 2016 debt sustainability scenario analysis covers only the Baseline and Optimistic Scenarios. This is hinged on the evaluation of the macroeconomic indicators, current and projected fiscal data, with optimistic outlook anchored on the completion and development effectiveness of the various reforms and initiatives of the current Administration aimed at turning around the economy. There was no Pessimistic Scenario as the Baseline Scenario was considered to be pessimistic enough.

6.1 Baseline Scenario

The Baseline Scenario results analysis are presented in three parts:

i. The analysis of the FGN's External Debt Sustainability. This covers both the FGN and Sub-national's (including FCT) external debts, given that under the law, all external debts are contracted by the Federal Government, while those belonging to the Sub-nationals are treated as on-lent loans.

ii. The analysis of the Fiscal Sustainability of the FGN, which covers the external and domestic debt of the FGN only.

iii. The analysis of the Fiscal Sustainability of the Federation, which covers the external debt and the domestic debt of both the FGN and Sub-nationals.

The Standard Stress Tests for each of these Baseline Scenarios are also discussed.

6.1.1 Analysis of the FGN's External Debt Sustainability

The result of the 2016 DSA shows that the risk of FGN's external debt distress is still low under the baseline scenario. All the indicators remain below their respective thresholds throughout the projection period even though the debt indicators are slightly higher than the ones in the 2015 DSA exercise (Table 6.1). The PV of External Debt-to-GDP ratio increases from 3.6 percent in 2016 and peaks at 6.5 percent in 2019, before falling to 0.7 percent by the end of the projection period. The PV of External Debt-to-Exports ratio reaches its peak at 42.6 percent in 2019, before declining to 5.8 percent in 2036. The declining External Debt-to-GDP ratio, despite rising PV of External Debt Service-to-

Exports, External Debt-to-Revenue and External Debt Service-to-Revenue ratios, implies that the increase in the country's GDP is not accompanied by a proportionate increase in exports and revenue. The PV of External Debt-to-Revenue and External Debt Service-to-Revenue ratios approach their respective thresholds, indicating that the debt portfolio is vulnerable to revenue-based indicators. The details of the results are shown in Annexure 1. This highlights the need to diversify, and increase the revenue base of the country, in order to mitigate the risk of debt distress in the medium to long-term.

Table 6.1: FGN's External Debt Sustainability Indicators in Percent (2016-2036)

Descriptions		International Threshold	2016	2017	2018	2019	2020	2021	2026	2036
Solvency Indicators	PV of Debt/ GDP	40	3.6	5.3	6.1	6.5	6.0	5.3	2.9	0.7
	PV of Debt/ Exports	150	27.1	31.9	38.3	42.6	39.2	36.4	22.5	5.8
	PV of Debt/ Revenue	250	106.5	136.0	166.0	154.4	144.8	138.9	103.0	42.8
Liquidity Indicators	Debt Service/ Exports	20	0.9	1.0	2.3	2.2	2.7	3.5	2.4	0.9
	Debt Service/ Revenue	20	3.4	4.3	10.1	8.1	10.1	13.3	11.2	6.8

6.1.2 Analysis of the Standard Stress Tests

The DSF-LIC analytical Template has an in-built shocking mechanism (Standard Stress Tests) which are referred to as Alternative Tests (permanent shocks) and Bound Tests (temporary shocks). These are automatic shocks that the Template applies on the variables provided in the various scenarios. Under the Alternative Tests, the key macroeconomic variables (real GDP growth rate, Primary Balance, export growth rate and non-debt creating flows) are shocked or discounted by 30 percent at their historical averages and minus one standard deviation over the entire projection period. It also assumes that new debts would be obtained under less favourable terms. While with the Bound Tests, the historical averages were shocked in the second and third year of the projection period and it also includes a combination of some of the shocks. The details of such automatic Stress Tests are outlined below:

A. Alternative Tests

A1. Key variables at their historical averages in 2016-2036

A2. New public sector loans on less favourable terms in 2016-2036

B. Bound Tests

- B1. Real GDP growth at historical average minus one standard deviation in 2017-2018
- B2. Export value growth at historical average minus one standard deviation in 2017-2018
- B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018
- B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018
- B5. Combination of B1-B4 using one-half standard deviation shocks
- B6. One-time 30 percent nominal depreciation relative to the baseline in 2015

The result of the standard stress tests shows that the external debt is sustainable in the medium to long-term, but is mostly sensitive to export shocks (Annexures (1a-f) and 4). The PV of External Debt–to-GDP ratio remains below its threshold throughout the projection period (Annexure 1b). The PV of Debt-to-Exports ratio trended upwards from 27.1 percent in 2016 and breached its threshold from 276.7 percent to 165.8 percent over the period, 2018-2027, before declining to 57.0 percent in 2036 (Annexure 1c). The PV of External Debt-to-Revenue ratio increases gradually from 66.8 percent in 2016 and breached its threshold of 250 percent between 2018 and 2022, at 296.5 percent down to 250.1 percent, before dropping sharply from 244.5 percent in 2023 to 121.0 percent in 2036, reflecting a boost in revenue in the long-term (Annexures 1d and 4). While the External Debt Service-to-Exports ratio trended upwards and hit its threshold at 20.0 percent by 2024, before declining to 8.2 percent in 2036, the External Debt Service-to-Revenue ratio displayed a similar trend and breached its threshold of 20.0 percent from 2024-2029, and thereafter returned to sustainability, by remaining below the threshold up to the end of the projection period.

6.1.3 Analysis of the Fiscal Sustainability (FGN's External & Domestic Debt)

The fiscal sustainability analysis include the external and domestic debts of the FGN. The fiscal sustainability has only one internationally recommended peer group solvency threshold at 56 percent of Debt-to-GDP ratio. The result shows that based on output-based indicator, the FGN is at a low risk of debt distress, under the baseline. The PV of Total Debt-to-GDP ratio is projected at 13.5 and 15.5 percent in 2016 and 2017, respectively, and will peak at 16.1 percent in 2019, before gradually trending downward to 3.6 percent by the end of the projection period (Table 6.2). These compare favourably with the peer group threshold of 56 percent and the country-specific threshold of 19.39 percent up to 2017. The declining trend of PV of Total Debt-to-GDP ratio from 2019, indicates that the real GDP growth rate outweighs the expected rate of debt accumulation. Details of these are shown in Annexure 2.

Table 6.2: FGN's Fiscal Sustainability Indicators in Percent, 2016-2036

Description	International Threshold	2016	2017	2018	2019	2020	2021	2026	2036
PV of Debt/GDP	56	13.5	15.5	16.0	16.1	15.0	14.0	9.2	3.6
PV of Debt/ Revenue	None	395.3	399.9	437.9	379.3	362.3	367.5	321.8	225.6
Debt Service/ Revenue	None	50.3	49.4	48.5	44.6	44.8	40.9	39.7	25.7

Notes:
i. Fiscal Sustainability measures the combined impact of both External and Domestic debt, on the indicators.
ii. While the international threshold for Total Debt-to-GDP ratio is 56 percent (Domestic + External), the country-specific threshold is 19.39 percent in the medium-term (up to 2017).
iii. Meanwhile, there are no international thresholds for Total Debt-to-Revenue and Total Debt Service-to-Revenue ratios; the country specific thresholds for these indicators are 350 and 28 percent respectively.

6.1.4 Analysis of the Standard Stress Tests

Annexure 2a shows that under the sensitivity analysis, the FGN's total debt portfolio to the GDP still remains well below the peer group threshold of 56 percent. The standard stress tests show that the PV of Debt-to-GDP ratio pushed up and trended at an average of 24.2 percent during the period of 2017-2036. The stress tests or combined shocks, when applied to the revenue-based indicators shows a substantial deterioration in indicators, indicating that any prolonged shock on revenue could lead to debt distress in the medium to long-term, if other sources of revenue are not developed to enhance the revenue. (Details of the results of the Stress Tests are captured in Annexure 4).

6.1.5 Analysis of Debt Sustainability of the FGN, States and FCT

This sub-section covers the analysis of the Total Public Debt of the Federation, which includes all external debts (FGN and Sub-nationals), domestic debt of the FGN, domestic debt of the States and the FCT. The results obtained show that, based on the output-based indicator, the Federation is also at a low risk of debt distress, but remains sensitive to revenue-based indicators.

6.1.6 Analysis of the External Debt Sustainability of the Federation

Table 6.3 presents the analysis of the total external debt sustainability of the Federation – FGN, States and the FCT – under the Baseline Scenario. The result shows that all the baseline indicators are below their respective thresholds. The solvency and liquidity indicators improved slightly, when compared with the result of 'FGN only' discussed under Section 6.1.1, due to the inclusion of the revenue of the States in the analysis. The PV of External Debt-to-Revenue and Debt Service-to-Revenue are projected at 66.8 and 2.1 percent, for Federation lower than 106.5 and 3.4 percent projected for FGN only, as at the end of 2016, respectively. This reflects a more robust sustainability position of external debt portfolio for the Federation. The rate of external debt accumulation remains same as the FGN only, since States are not allowed to borrow directly from external sources. The external debt of the States are guaranteed by the FGN, while the debt service obligations lie with the States, but executed under their mandate by the FGN. This is done through the instrumentality of Irrevocable Standing payment Orders (ISPOs) issued by the States against their statutory revenue allocations.

Table 6.3: External Debt Sustainability Indicators (FGN, States & FCT) in Percent, 2016-2036

Descriptions		International Threshold	2016	2017	2018	2019	2020	2021	2026	2036
Solvency Indicators	PV of Debt/ GDP	40	3.6	5.3	6.1	6.5	6.0	5.3	2.9	0.7
	PV of Debt/ Exports	150	27.1	31.9	38.3	42.6	39.2	36.4	22.5	5.8
	PV of Debt/ Revenue	250	66.8	82.2	97.8	91.6	86.6	82.9	62.3	29.44
Liquidity Indicators	Debt Service/ Exports	20	0.9	1.0	2.3	2.2	2.7	3.5	2.4	0.9
	Debt Service/ Revenue	20	2.1	2.6	5.9	4.8	6.0	8.0	6.8	4.7

6.1.7 Analysis of the Standard Stress Tests

Under standard stress test the sustainability analysis of the Federation mirrors the external debt sustainability of the FGN only. The sustainability indicators breach the threshold under stress test in relation to export and revenue. Specifically, there was persistent breach of the threshold of Debt-to-Revenue from 2017 to 2032 (Annexure 1a-f). **This confirms the earlier position that Nigeria is very vulnerable to revenue shock and immediate measures should be taken to improve revenue profile in order to forestall external debt sustainability problem**. The external Debt Service-to-Revenue improved when compared with the FGN only.

6.1.8 Analysis of the Fiscal Sustainability of the Federation

This sub-section covers the sustainability of the Federation, which include the domestic debt and IGR of the States and the FCT to that of the FGN in the analysis. The result showed that the PV of Total Debt-to-GDP ratio at 15.9 percent in 2016 is within the standard peer group threshold of 56 percent and the country specific threshold of 19.39 percent up to 2017. The ratio peaks at 19.0 percent in 2019, before trending downward continuously from 2020 throughout the projection period to reach 4.3 percent in 2036 (Table 6.4 and Annexure 5a). The decline in this solvency (output-based) indicator (i.e. PV of Total Debt-to-GDP and PV of Total Debt-to-Revenue ratios) is attributable to the fact that the rate of growth of output is higher than the rate of debt accumulation. It could also be observed that the PV of Total Debt-to Revenue and Debt Service-to-Revenue ratios are much lower than those obtained when the revenue under the FGN only was considered.

Table 6.4: Fiscal Sustainability Indicators (FGN, States & FCT) in Percent, 2016-2036

Description	International Threshold	2016	2017	2018	2019	2020	2021	2026	2036
PV of Debt/GDP	56*	15.9	18.3	18.9	19.0	17.8	16.6	11.3	4.3
PV of Debt/ Revenue	Not Applicable	291.9	285.8	305.1	266.2	257.3	261.3	240.5	188.2
Debt Service/ Revenue	Not Applicable	61.3	58.4	56.4	54.7	58.9	63.3	111.2	84.6

*Country-specific limit is 19.39 percent

6.1.9 Analysis of the Standard Stress Tests

The results of the standard stress tests of the Total Public Debt of the Federation as shown in Annexure 5b compare favourably with those obtained under the Baseline Scenario of the FGN's only; particularly with respect to revenue-based indicators, which shows a rising trend, but with greater degree of sustainability relative to FGN only. The most extreme shock shows that the PV of total Debt-to-Revenue is 321.5 percent at 2018, the highest before 2026, compared with 316.5 percent in 2015.

6.2 Optimistic Scenario (FGN-Only)

The Optimistic Scenario assumes an increase in the growth of the GDP, a decrease in the rate of inflation, an increase in revenue accruing to the FGN as a result of restoration of normalcy in crude oil production and rise in crude oil prices; improvement in other non-oil revenue sources, fiscal deficit and current account balance, together with appreciation of the Naira exchange rate, in view of the expected stability in the new foreign exchange regime.

6.2.1 Analysis of External Debt Sustainability of the FGN

The debt indicators obtained under the Optimistic Scenario are generally below those under the baseline, given the assumptions of strong economic growth, enhanced non-oil exports and moderation in inflation. The PV of External Debt-to-GDP ratio is projected to peak at 2019, but declined to 0.6 percent in 2036. (Table 6.5). The PV of External Debt-to-Exports and PV of External Debt-to-Revenue ratios are expected to decline to 1.7 and 25.8 percent by the end of the projection period from 25.9 and 106.5 percent in 2016, respectively. The liquidity indicators (Debt Service-to-Exports and Debt Service-to-Revenue ratios) peak at 2021, before going down gradually to 0.3 and 4.2 percent in 2036, respectively. This indicates that export and revenue variables did not grow at the same pace with total output (GDP), further highlighting amongst other things, the weak link between the GDP and revenue.

Table 6.5: External Debt Sustainability Indicators in Percent, 2016-2036

Descriptions		International Threshold	2016	2017	2018	2019	2020	2021	2026	2036
Solvency Indicators	PV of Debt/GDP	40	3.6	4.9	5.2	5.6	5.2	4.6	2.7	0.6
	PV of Debt/ Exports	150	25.9	24.3	25.6	25.5	23.0	20.4	10.4	1.7
	PV of Debt/ Revenue	250	106.5	111.1	123.1	128.5	125.3	119.1	84.0	25.8
Liquidity Indicators	Debt Service/ Exports	20	0.8	0.8	1.7	1.3	1.5	1.9	1.1	0.3
	Debt Service/ Revenue	20	3.4	3.6	8.0	6.7	8.3	11.2	8.7	4.2

6.2.2 Analysis of Fiscal Sustainability of the FGN

The sustainability position of the FGN's Total debt portfolio in the fiscal block of the Optimistic Scenario shows a positive trend. The PV of Total Public Debt-to-GDP ratio declined steadily from its highest value of 15.6 percent in 2018, to as low as 3.4 percent at the end of the projection period (Table 6.6). The PV of Total Public Debt-to-Revenue and Total Public Debt Service-to-Revenue ratios, which have no set standard benchmarks, are projected at 395.3 and 47.4 percent in 2016, to drop rapidly from 310.6 and 33.5 percent in 2026 to 151.4 and 15.2 percent by the end of the projection period, respectively. Thus, reaffirming the earlier position on the need for immediate measures to be taken to improve the revenue base of the country in order to forestall falling into debt sustainability problem in the medium-term.

Table 6.6: Fiscal Sustainability Indicators in Percent

Description	International Threshold	2016	2017	2018	2019	2020	2021	2026	2036
PV of Debt/GDP	56*	13.5	15.4	15.6	15.4	15.0	14.2	9.8	3.4
PV of Debt/Revenue	Not Applicable	395.3	348.6	365.2	353.7	361.5	366.9	310.6	151.4
Debt Service/Revenue	Not Applicable	47.4	41.9	39.6	40.6	42.8	37.7	33.5	15.2

*Country-specific threshold is 19.39 percent up to 2017

6.4 Determination of Borrowing Limit for 2017

The determination of the borrowing limit is guided by Government's conservative debt management strategy of using the Country-Specific threshold of 19.39 percent for PV of total Public Debt-to-GDP ratio in the medium-term, as against the country's international peer group threshold of 56 percent to measure its debt sustainability.

i. The end-period NPV of Total Public Debt-to-GDP ratio for 2016 for FGN is projected at 13.5 percent. Given the Country-Specific ratio of 19.39 percent for NPV of Total Public Debt-to-GDP ratio (up to 2017), the borrowing space is 5.89 percent of the estimated GDP of US$374.95 billion for 2017.

ii. To this end, the **maximum amount that could be borrowed (domestic and external) by the FGN in 2017 without violating the country-specific threshold will be US$22.08 billion (i.e. 5.89 percent of US$374.95 billion).**

iii. The Debt Management Strategy, 2016-2019, provides for the rebalancing of the debt portfolio from its composition of 84:16 as at end-December, 2015, to an optimal composition of 60:40 by end-December, 2019 for domestic to external debts, respectively. It supports the use of more external finance for funding capital projects, in line with the focus of the present Administration on speeding up infrastructural development in the country, by substituting the relatively expensive domestic borrowing in favour of cheaper external financing. This policy stance has been reinforced by the recent deterioration in macroeconomic variables, particularly with respect to the rising cost of domestic borrowing. Hence, the shift of emphasis to external borrowing would help to reduce debt service burden in the short to medium-term and further create more borrowing space for the private sector in the domestic market. **Accordingly, for the fiscal year 2017, the maximum amount that could be borrowed is US$22.08 billion, and it is proposed to be obtained from both the domestic and external sources as follows:**

- **New Domestic Borrowing US$5.52 billion (equivalent of about ₦1,600.00 billion); and,**
- **New External Borrowing: US$16.56 billion (equivalent of about ₦4,800.00 billion).**

It is worthy to note that these are recommended maximum amounts that could be borrowed, taking into account the absorptive capacity of the domestic debt market, and the options available in the external market. It is expected that such external borrowings, which would be long-term (minimum 15 years), would be strategically deployed to fund priority infrastructure projects, that would boost output, and put the economy on the path of sustainable recovery and growth. It is further expected that the long maturity profile of such loans would enable the economy to be sufficiently diversified for increased export earnings for ease of debt service payments.

6.5 Conclusion

The results of the 2016 DSA showed that for the first time since the exit from the Paris and London clubs of creditors in 2005 and 2006, **Nigeria's debt position experienced some deterioration and slipped from a Low-risk of debt distress to a Medium-risk of debt distress. Although the level of debt stock is still appreciably low relative to the country's aggregate output (GDP), the debt portfolio remains mostly vulnerable to the various shocks associated with revenue, exports and substantial currency devaluation**. This meant that, as in the previous DSA, while the GDP-related indicators appear normal, as they remained below their respective thresholds, the revenue-based indicators were mostly sensitive to the revenue shocks. Thus, underscoring the urgent need for concerted efforts to be intensified to diversify the revenue base of the country away from oil.

CHAPTER SEVEN

SUMMARY OF KEY FINDINGS AND RECOMMENDATIONS

7.1 Summary of Key Findings

The result of the 2016 DSA showed that for the first time, since the exit from the Paris and London clubs of creditors in 2005 and 2006, **Nigeria's debt position experienced some deterioration and slipped from a Low-risk of debt distress to a Medium-risk of debt distress. Although the level of debt stock is still appreciably low relative to the country's aggregate output (GDP), the debt portfolio remains mostly vulnerable to the various shocks associated with revenue, exports and substantial currency devaluation.** This meant that, as in the previous DSA, while the GDP-related indicators appear normal, they remained below their respective thresholds, the revenue-based indicators were mostly sensitive to the revenue shocks. The detailed outcomes of the exercise are highlighted below.

a) Baseline Scenario

(i) **Output Indicator – (Debt/GDP)**

- ***FGN-only***

The estimated average real GDP growth rate of 4.49 percent over the projection period outweighs the expected rate of debt accumulation of 1.64 percent, indicating that under the fiscal sustainability of the FGN-only (External[6] & Domestic Debt), the FGN debt portfolio is at a low risk of debt distress. The PV of Total Debt-to-GDP ratio is projected at 13.5 and 15.5 percent in 2016 and 2017, respectively. This is expected to peak at 16.1 percent in 2019, before trending downwards from 15.0 percent in 2020 to 3.6 percent by the end of the projection period, 2036. These compare favourably with the peer group threshold of 56 percent.

- ***The Federation (FGN, States & FCT)***

The fiscal sustainability of the Federation (FGN, States and FCT) mirrored the performance of FGN-only. The result showed that the PV of Total Debt-to-GDP ratio at 15.9 percent in 2016 is still within the standard peer group threshold of 56 percent and the country-specific threshold of 19.39 percent, up to 2017. The ratio is expected to peak at 19.0 percent in 2019, before trending downwards from 2020 throughout the projection period

[6] External debt includes FGN, States and FCT, given that the FGN is the primary obligor for all external borrowing

to reach 4.3 percent in 2036. The decline in the PV of Total Debt-to-GDP ratio would be due to lower rate of public debt accumulation at an average of 1.59 percent over the projection period against the relatively higher average real GDP growth rate of 4.49 percent.

(ii) **Revenue-Based Indicator (Total Debt-to-Revenue)**

- ***FGN-only***

For the FGN-only (External and Domestic debts), the revenue-based indicators, showed a faster rate of deterioration from the first year of projection in 2016. The PV of Debt-to-Revenue ratio was projected at 395.3 percent in 2016, to peak at 437.9 percent in 2018. These ratios were above the Country-Specific threshold of 350 percent. It is important to note that there are no international thresholds for the fiscal sustainability (combined external and domestic), even though such a threshold exists only for External Debt-to-Revenue ratio, which is 250 percent; Nigeria had to adopt a country specific ratio, given that the domestic debt is a peculiarly strong portion of the country's public debt. The stress tests or the combined shocks, when applied to the PV of Debt-to-Revenue ratio shows a substantial deterioration in the indicator, indicating that any prolonged shock on revenue could lead to a state of debt distress in the medium to long-term, if other countervailing policies are not put in place to enhance the non-oil revenue. Thus, affirming the proposition for an urgent need to further diversify the revenue base of the country to forestall the risk of debt distress.

- ***Federation (FGN, States & FCT)***

The PV of Debt-to-Revenue ratio of the Federation (FGN, States and FCT) looks fairly robust, throughout the projection period when compared to the FGN-only. The projected PV of Debt-to-Revenue ratio trended below the country-specific threshold of 350 percent throughout the projection period, from 2016 at 291.9 to 188.2 percent by 2036. This indicator is much lower than that obtained under the FGN-only, due mainly to the addition of the sub-national's revenue variable, which is proportionately higher than the addition of their debt stock variable.

(iii) **Revenue-Based Indicator (Debt Service-to-Revenue)**

- ***FGN-only***

The Debt Service-to-Revenue ratio under the FGN-only breached the country's specific threshold of 28 percent from 2016 at 50.3 percent, up to 2031, before trending downwards to 25.7 percent in 2036. This shows that the debt portfolio still remains highly vulnerable to persistent shocks in revenue, indicating a potential challenge in maintaining debt sustainability.

- ***The Federation (FGN, States and FCT)***

The ratio of Debt Service-to-Revenue for the Federation also revealed a similar pattern to the outcome of the FGN-only, as it immediately breached the country specific threshold of 28 percent from the first year of projection in 2016 with 61.3 percent, which was higher than the FGN-only ratio for the same year. This situation would prevail throughout the projection period up to 2036.

b) Optimistic Scenario

The sustainability position of the FGN's Total debt portfolio in the fiscal block of the Optimistic Scenario appears positive, as the PV of Total Public Debt-to-GDP ratio declined steadily from its highest value of 15.6 percent in 2018, to as low as 3.4 percent at the end of the projection period. The PV of Total Public Debt-to-Revenue and Total Public Debt Service-to-Revenue ratios, which have no set standard benchmarks, trended at 395.3 and 47.4 percent in 2016, but dropped rapidly from 310.6 and 33.5 percent in 2026 to 151.4 and 15.2 percent by the end of the projection period, respectively. Thus, reaffirming the earlier position on the need for immediate measures to be taken to improve the revenue base of the country in other to forestall falling into debt sustainability problem in the medium-term.

From the foregoing, it is evident that the rate of GDP growth does not proportionately impact on the revenue accruing to the government, thus, making the portfolio highly sensitive to Revenue shocks. **Therefore, there is an urgent need for the authorities to intensify all efforts aimed at diversifying the sources of revenue away from crude oil, as well as implement other intervention policies that will boost exports and capital-flows, such as foreign direct investments into the country.** This has become very critical, given the persistent shocks on the revenue and exports, arising from the continued volatility in the price of oil in the international commodities market.

7.2 Key Recommendations

The key policy recommendations of the 2016 DSA exercise are as follows:

i. The end-period NPV of Total Public Debt-to-GDP ratio for 2016 for FGN is projected at 13.5 percent. Given the Country-Specific threshold of 19.39 percent for NPV of Total Public Debt-to-GDP ratio (up to 2017), the borrowing space available is 5.89 percent of the estimated GDP of US$374.95 billion for 2017.

ii. To this end, the **maximum amount that could be borrowed (domestic and external) by the FGN in 2017 without violating the country-specific threshold will be US$22.08 billion (i.e. 5.89 percent of US$374.95 billion).**

iii. The Debt Management Strategy, 2016-2019, provides for the rebalancing of the debt portfolio from its composition of 84:16 as at end-December, 2015, to an optimal composition of 60:40 by end-December, 2019 for domestic to external debts, respectively. It supports the use of more external finance for funding capital projects, in line with the focus of the present Administration on speeding up infrastructural development in the country, by substituting the relatively expensive domestic borrowing in favour of cheaper external financing. This policy stance has been reinforced by the recent deterioration in macroeconomic variables, particularly with respect to the rising cost of domestic borrowing. Hence, the shift of emphasis to external borrowing would help to reduce debt service burden in the short to medium-term and further create more borrowing space for the private sector in the domestic market. **Accordingly, for the fiscal year 2017, the maximum amount that could be borrowed is US$22.08 billion, and it is proposed to be obtained from both the domestic and external sources as follows:**

- **New Domestic Borrowing US$5.52 billion (equivalent of about ₦1,600.00 billion); and,**
- **New External Borrowing: US$16.56 billion (equivalent of about ₦4,800.00 billion).**

It is worthy to note that these are recommended maximum amounts that could be borrowed, taking into account the absorptive capacity of the domestic debt market, and the options available in the external market. It is expected that such external borrowings, which would be long-term (minimum 15 years), would be strategically deployed to fund priority infrastructure projects, that would boost output, and put the economy on the path of sustainable recovery and growth. It is further expected that the long maturity profile of such loans would enable the economy to be sufficiently diversified for increased export earnings for ease of debt service payments.

iv. There is an urgent need for the Government to formulate an **Economic Blueprint or Road-Map** for the medium-term. Aside from addressing the current challenges, it would go a long way to engender confidence in both local and international investors on the way forward. This has become very imperative, given that investor-perception of a country's outlook is critical to its economic recovery.

v. It is advisable that the Federal Government sustains the on-going reforms and initiatives in the various key sectors of the economy, including: agriculture, education, housing, power, and transportation, as this would foster the needed inclusive economic growth and development.

vi. In view of the continued deterioration in Government's revenue, occasioned by the drastic fall in the price of oil, Government should reinforce its initiatives aimed at diversifying the productive base of the economy and, thus, improve the non-oil revenue receipts. Accordingly, concrete and urgent steps should be taken to broaden the tax base and improve efficiency in tax administration and collection.

vii. Given the country's huge infrastructural needs, the Government is encouraged to sustain the policy of allocating a minimum of 30 percent of Federal Government's budget to capital investments, as well as ensuring judicious utilization of such funds for infrastructure development.

viii. In view of the adverse effect on the economy of the recurring delays in budget formulation and passage, there is the need for the Government to ensure strict adherence to the annual budget calendar, so as to facilitate growth recovery, reduce fiscal slippages and delays in budget implementation.

ix. The passage of the Petroleum Industry Bill (PIB) by the National Assembly is long overdue and should be given speedy attention by the authorities. Its passage is expected to liberalise the oil and gas sector, and thus, attract more investments into the sector, which will have positive multiplier effect on the economy.

x. Given that in the short to medium-term, oil would still remains a key revenue earner of the nation, the Federal Government is encouraged to continue on its efforts to curtail crude oil production disruptions in the oil producing areas.

xi. In view of the country's huge infrastructure requirements, the Federal Government is enjoined to creatively explore other alternative and viable sources of financing critical infrastructure development outside the routine budgetary process. These may include the setting up of an Infrastructure Development Fund, the issuance of Infrastructure-tied Bonds, as well as encouragement for the private sector to participate in funding viable infrastructural projects through Public-Private-Partnership arrangements.

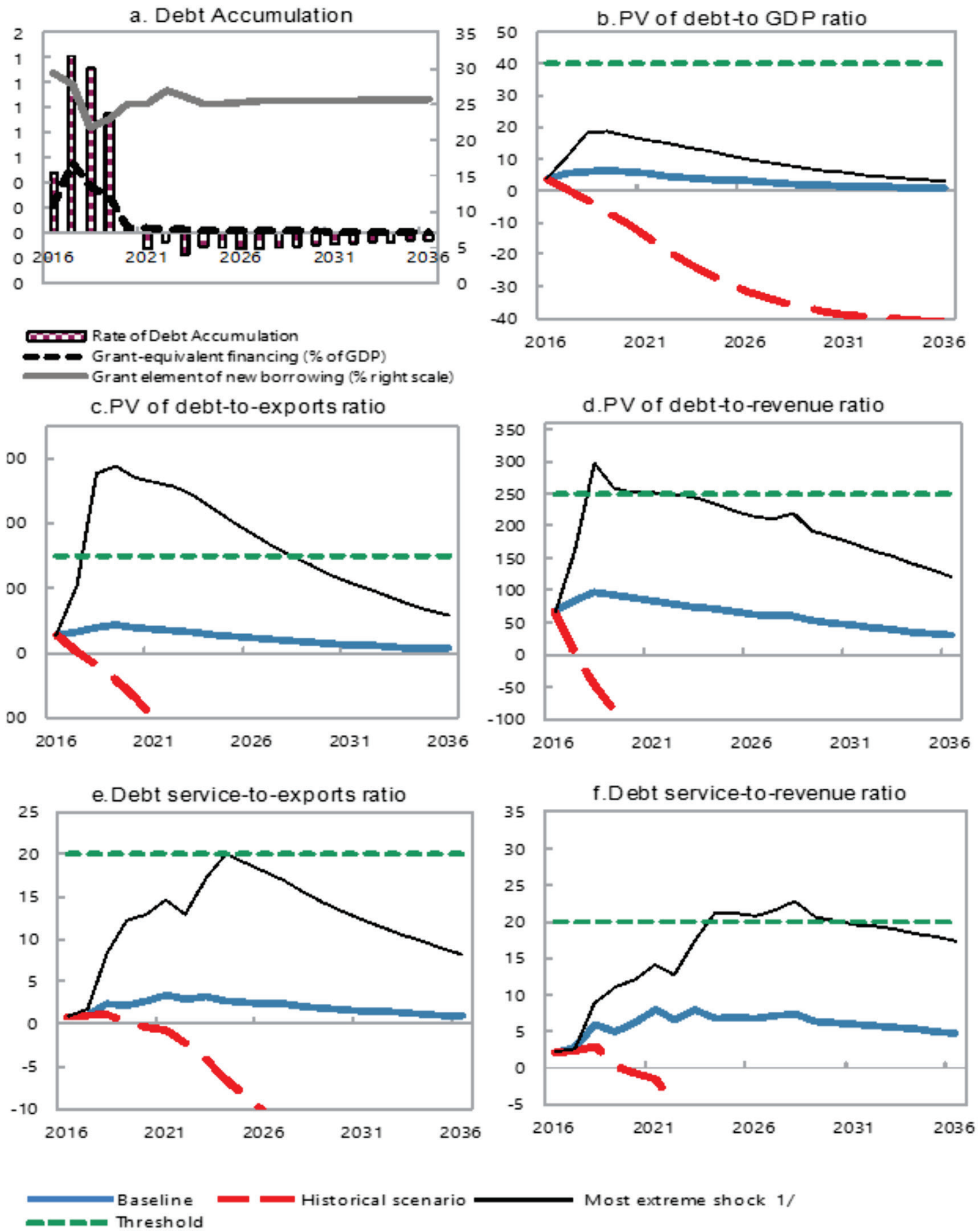
xii. As part of the initiatives for boosting revenue, the Federal Government is encouraged to fast-track the process of liberalising the exploration of the solid minerals deposits across the country. This is to make the sector much more attractive and competitive, and further expand the non-oil revenue base.

xiii. As part of Government's commitment to encouraging private sector participation in the development of the economy, the demand for FGN Guarantees may likely increase. In order to instil discipline and discourage frivolous requests that may unduly expose the Federal Government, it is also recommended that the issuance of FGN Guarantees to the private sector should attract appropriate fees, and should be within an established framework.

xiv. Given the current dwindling resources accruing to all tiers of Government, resulting from the various shocks in the economy, State Governments need to be encouraged to implement effective fiscal reforms aimed at improving their internally generated revenues, so as to curtail the over-dependence on federal allocations and Federal Government bail-outs.

xv. The DMO should be encouraged to sustain its on-going capacity building initiatives for the sub-nationals, so as to upscale their technical competence and skills in debt management, and bring them to the level where the staff of the Debt Management Departments would be able to conduct DSAs and Medium-Term Debt Strategy (MTDS) for their States. This will further help the officials to effectively advise their respective State Governments on issues relating to public debt management.

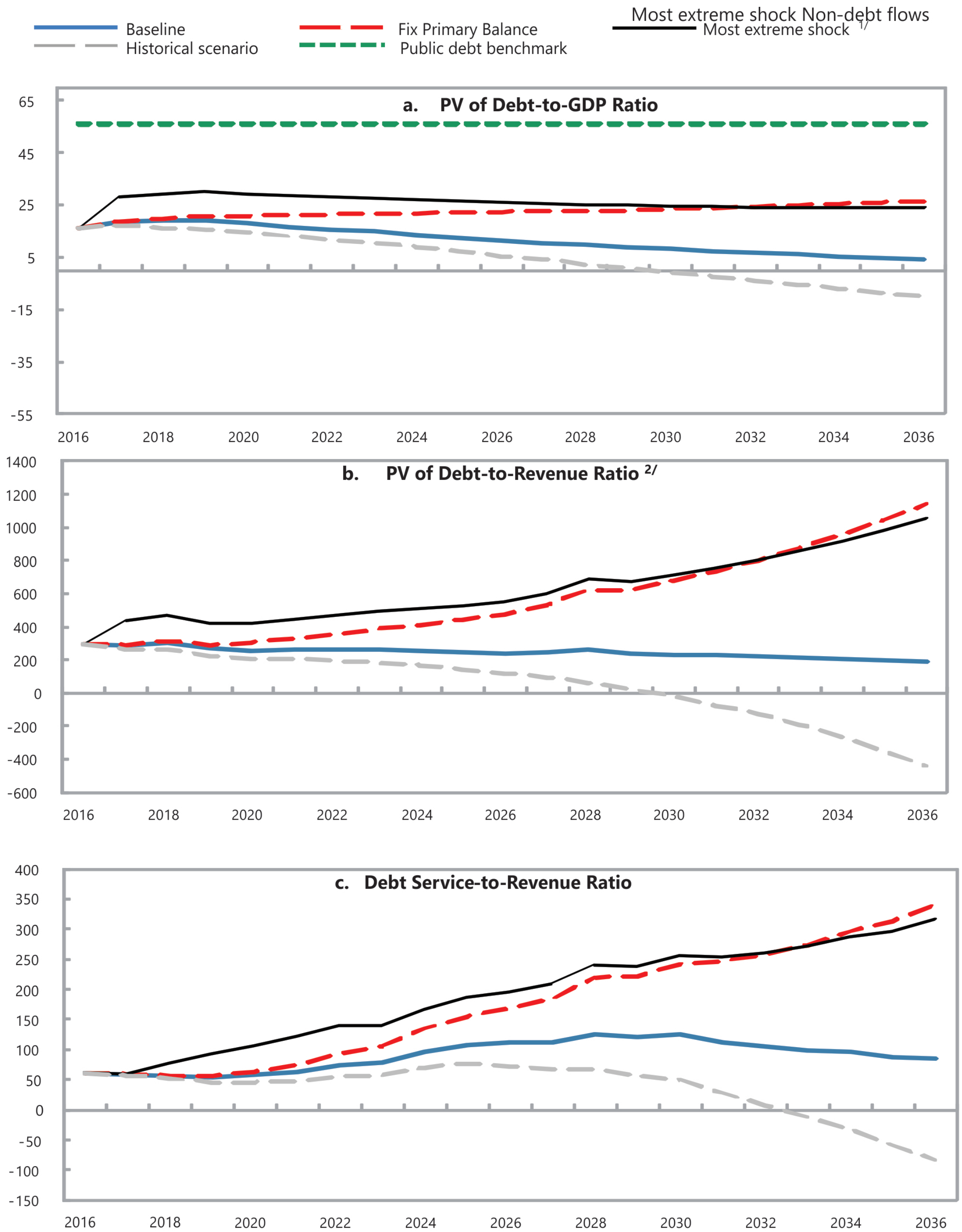
Annexure 1: Nigeria's External Debt Sustainability Indicators Under Alternative Scenarios, 2016-2036



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2026. In figure b. it corresponds to a Exports shock; in c. to a Exports shock; in d. to a Exports shock; in e. to a Exports shock and in figure f. to a Exports shock

Annexure 2: FGN's Public Debt Sustainability under Alternative Scenarios, 2016-2036



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2026.

2/ Revenues are defined inclusive of grants.

Annexure 3: External Debt Sustainability Framework, Baseline Scenario, 2016-2036 1/

(In percent of GDP, unless otherwise indicated)

	Actual			Historical 6/ Average	Standard 6/ Deviation	Projections									
	2013	2014	2015			2016	2017	2018	2019	2020	2021	2016-2021 Average	2026	2036	2022-2036 Average
External debt (nominal) 1/	**2.2**	**2.3**	**2.6**			**3.1**	**6.0**	**7.1**	**7.8**	**7.1**	**6.4**		**3.6**	**0.8**	
of which: public and publicly guaranteed (PPG)	1.7	1.9	2.2			2.7	5.5	6.7	7.4	6.8	6.1		3.4	0.7	
Change in external debt	0.5	0.1	0.3			0.5	2.9	1.2	0.6	-0.6	-0.8		-0.5	-0.1	
Identified net debt-creating flows	-4.8	-1.0	3.0			1.2	-1.3	-1.7	-1.4	-1.8	-1.5		-1.7	-2.7	
Non-interest current account deficit	**-3.9**	**-0.3**	**3.1**	**-5.4**	**5.7**	**2.2**	**-0.1**	**-0.8**	**-0.4**	**-0.8**	**-0.8**		**-1.1**	**-2.4**	-1.6
Deficit in balance of goods and services	-4.5	0.3	-24.5			-32.2	-36.6	-34.7	-34.3	-34.0	-32.4		-28.9	-24.7	
Exports	19.7	15.1	9.5			13.4	16.5	15.8	15.4	15.3	14.5		13.0	11.6	
Imports	15.2	15.3	-14.9			-18.7	-20.1	-18.9	-18.9	-18.6	-17.9		-15.9	-13.1	
Net current transfers (negative = inflow)	-4.3	-3.9	-4.2	-5.7	1.4	-5.6	-6.3	-6.2	-6.3	-6.3	-6.1		-5.8	-5.1	-5.6
of which: official	-0.4	-0.3	-0.3			-0.5	-0.5	-0.4	-0.4	-0.4	-0.3		-0.2	-0.1	
Other current account flows (negative = net inflow)	5.0	3.3	31.7			39.9	42.8	40.2	40.2	39.5	37.7		33.6	27.3	
Net FDI (negative = inflow)	**-0.9**	**-0.5**	**-0.6**	**-1.5**	**0.7**	**-1.1**	**-1.3**	**-1.0**	**-1.0**	**-0.9**	**-0.8**		**-0.5**	**-0.2**	-0.4
Endogenous debt dynamics 2/	**-0.1**	**-0.1**	**0.5**			**0.1**	**0.1**	**0.1**	**0.0**	**0.0**	**0.0**		**-0.1**	**0.0**	
Contribution from nominal interest rate	0.1	0.1	0.1			0.1	0.2	0.3	0.3	0.3	0.3		0.1	0.0	
Contribution from real GDP growth	-0.1	-0.1	-0.1			0.0	-0.1	-0.2	-0.3	-0.4	-0.3		-0.2	0.0	
Contribution from price and exchange rate changes	-0.1	-0.1	0.4			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**5.3**	**1.0**	**-2.6**			**-0.7**	**4.2**	**2.8**	**2.0**	**1.1**	**0.8**		**1.2**	**2.5**	
of which: exceptional financing	-0.2	-1.5	-1.2			-0.5	-0.3	-0.1	0.2	0.5	0.2		0.2	0.1	
PV of external debt 4/	...	...	2.9			4.1	5.7	6.5	6.9	6.3	5.6		3.1	0.8	
In percent of exports	...	...	30.5			30.2	34.5	40.8	45.0	41.4	38.5		24.0	6.5	
PV of PPG external debt	...	...	**2.6**			**3.6**	**5.3**	**6.1**	**6.5**	**6.0**	**5.3**		**2.9**	**0.7**	
In percent of exports	...	...	**26.8**			**27.1**	**31.9**	**38.3**	**42.6**	**39.2**	**36.4**		**22.5**	**5.8**	
In percent of government revenues	...	...	**38.1**			**66.8**	**82.2**	**97.7**	**91.6**	**86.6**	**82.9**		**62.3**	**29.4**	
Debt service-to-exports ratio (in percent)	**0.7**	**1.3**	**4.1**			**3.5**	**3.3**	**4.5**	**4.3**	**4.6**	**5.3**		**3.7**	**1.5**	
PPG debt service-to-exports ratio (in percent)	**0.1**	**0.3**	**0.9**			**0.9**	**1.0**	**2.3**	**2.2**	**2.7**	**3.5**		**2.4**	**0.9**	
PPG debt service-to-revenue ratio (in percent)	**0.3**	**0.6**	**1.3**			**2.1**	**2.6**	**5.9**	**4.8**	**6.0**	**8.0**		**6.8**	**4.7**	
Total gross financing need (Billions of U.S. dollars)	-23.3	-3.4	13.9			6.2	-3.2	-4.4	-3.3	-4.9	-4.4		-10.0	-52.6	
Non-interest current account deficit that stabilizes debt ratio	-4.3	-0.4	2.8			1.6	-2.9	-2.0	-1.0	-0.1	0.0		-0.6	-2.3	
Key macroeconomic assumptions															
Real GDP growth (in percent)	5.5	6.2	2.8	6.3	2.1	0.1	3.5	4.0	4.1	5.2	4.6	3.6	4.8	5.0	4.9
GDP deflator in US dollar terms (change in percent)	6.0	3.8	-16.6	3.2	11.9	-16.3	-6.8	4.5	3.2	4.0	6.3	-0.8	4.3	4.4	4.3
Effective interest rate (percent) 5/	5.8	4.1	4.7	10.1	12.4	4.7	6.0	6.3	4.1	4.5	5.3	5.1	3.1	3.6	3.7
Growth of exports of G&S (US dollar terms, in percent)	0.9	-15.6	-45.7	1.3	29.3	18.1	18.3	4.3	4.3	9.1	5.4	9.9	8.0	8.2	7.7
Growth of imports of G&S (US dollar terms, in percent)	-5.2	11.3	-183.6	0.1	93.6	5.1	3.4	2.4	7.3	7.9	6.5	5.4	6.8	7.5	7.1
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	29.5	27.9	21.8	23.0	25.0	25.2	25.4	25.3	25.7	25.7
Government revenues (excluding grants, in percent of GDP)	8.4	7.8	6.7			5.5	6.4	6.2	7.1	6.9	6.4		4.7	2.3	3.9
Aid flows (in Billions of US dollars) 7/	7.1	8.1	0.3			1.4	3.5	2.5	1.8	0.3	0.3		0.2	0.2	
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	
of which: Concessional loans	7.1	8.1	0.2			1.4	3.5	2.5	1.8	0.3	0.3		0.2	0.2	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			0.2	0.6	0.4	0.3	0.0	0.0		0.0	0.0	0.0
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			29.5	27.9	21.8	23.1	25.3	25.4		25.7	26.1	26.0

Memorandum items:													
Nominal GDP (Billions of US dollars)	509.1	561.6	481.5	403.6	389.1	422.9	454.3	497.2	552.7		859.5	2121.9	
Nominal dollar GDP growth	11.8	10.3	-14.3	-16.2	-3.6	8.7	7.4	9.4	11.2	2.8	9.3	9.6	9.4
PV of PPG external debt (in Billions of US dollars)			12.2	14.6	20.3	25.4	29.5	29.6	28.9		25.0	14.2	
(PVt-PVt-1)/GDPt-1 (in percent)				0.5	1.4	1.3	1.0	0.0	-0.1	0.7	-0.1	-0.1	-0.1
Gross workers' remittances (Billions of US dollars)	20.8	20.8	20.4	21.9	23.9	26.0	28.2	30.9	33.3		49.0	107.5	
PV of PPG external debt (in percent of GDP + remittances)	...	...	2.5	3.5	5.0	5.7	6.2	5.6	5.0		2.8	0.6	
PV of PPG external debt (in percent of exports + remittances)	...	...	18.6	19.3	23.3	27.6	30.4	27.9	25.7		15.6	4.1	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	0.7	0.6	0.7	1.7	1.6	1.9	2.5		1.7	0.6	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as [r - g - ρ(1+g)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = 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).

Annexure 4: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016-2036

(In percent)

	Projections							
	2016	2017	2018	2019	2020	2021	2026	2036
PV of debt-to GDP ratio								
Baseline	4	5	6	7	6	5	2	1
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	4	0	-3	-6	-11	-15	-21	-41
A2. New public sector loans on less favorable terms in 2016-2036 2	4	6	7	8	7	7	4	2
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	4	5	6	6	6	5	2	1
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	4	10	18	19	17	16	10	3
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	4	5	7	8	7	6	2	1
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	4	7	10	10	9	8	5	1
B5. Combination of B1-B4 using one-half standard deviation shocks	4	9	16	16	15	14	9	2
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	4	8	9	10	9	8	4	1
PV of debt-to-exports ratio								
Baseline	27	32	38	43	39	36	22	6
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	27	2	-17	-42	-69	-101	-242	-353
A2. New public sector loans on less favorable terms in 2016-2036 2	27	35	44	51	47	45	21	13
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	27	32	38	42	39	36	22	6
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	27	104	277	287	270	262	182	57
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	27	32	38	42	39	36	22	6
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	27	44	61	65	60	57	28	11
B5. Combination of B1-B4 using one-half standard deviation shocks	27	80	167	174	164	158	110	34
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	27	32	38	42	39	36	22	6
PV of debt-to-revenue ratio								
Baseline	67	82	98	92	87	83	62	29
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	67	6	-44	-90	-152	-231	-669	-1780
A2. New public sector loans on less favorable terms in 2016-2036 2	67	90	113	109	105	102	87	67
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	67	81	96	90	85	81	61	29
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	67	163	296	259	251	251	214	121
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	67	83	113	106	100	96	72	34
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	67	112	154	139	133	131	105	55
B5. Combination of B1-B4 using one-half standard deviation shocks	67	141	259	228	220	219	185	104
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	67	120	143	134	126	121	91	43

Annexure 4: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016-2036 (continued)

(In percent)

Debt service-to-exports ratio								
Baseline	1	1	2	2	3	3	**2**	1
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	1	1	1	0	0	-1	**-10**	-24
A2. New public sector loans on less favorable terms in 2016-2036 2	1	1	2	2	2	3	**3**	1
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	1	1	2	2	3	3	**2**	1
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	1	2	8	12	13	15	**18**	8
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	1	1	2	2	3	3	**2**	1
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	1	1	3	3	4	4	**4**	2
B5. Combination of B1-B4 using one-half standard deviation shocks	1	1	5	8	8	9	**11**	5
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	1	1	2	2	3	3	**2**	1
Debt service-to-revenue ratio								
Baseline	2	3	6	5	6	8	**7**	5
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	2	2	3	0	-1	-2	**-29**	-119
A2. New public sector loans on less favorable terms in 2016-2036 2	2	3	5	4	5	7	**8**	7
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	2	3	6	5	6	8	**7**	5
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	2	3	9	11	12	14	**21**	17
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	2	3	7	6	7	9	**8**	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	2	3	7	7	8	10	**11**	8
B5. Combination of B1-B4 using one-half standard deviation shocks	2	2	8	10	11	13	**18**	15
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	2	4	9	7	9	12	**10**	7
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	19	19	19	19	19	19	**19**	19

Sources: Country authorities; and staff estimates and projections.

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.

Annexure 5a: Public Sector Debt Sustainability Framework, Baseline Scenario, 2016-2036

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2013	2014	2015	Average 5/	Standard Deviation 5/	2016	2017	2018	2019	2020	2021	2016-21 Average	2026	2036	2022-36 Average
Public sector debt 1/	10.6	12.6	14.2			15.0	18.6	19.6	19.9	18.6	17.4		11.7	4.4	
of which: foreign-currency denominated	1.7	1.9	2.2			2.7	5.5	6.7	7.4	6.8	6.1		3.4	0.7	
Change in public sector debt	0.1	2.0	1.6			0.7	3.6	1.0	0.3	-1.2	-1.2		-1.2	-0.5	
Identified debt-creating flows	5.7	2.3	3.1			1.1	3.5	1.3	0.4	-0.7	-0.9		-0.6	-0.2	
Primary deficit	1.4	0.3	0.4	-1.2	3.5	0.0	-0.2	-0.2	-1.1	-1.3	-1.2	-0.7	-0.9	-0.3	-0.7
Revenue and grants	8.4	7.8	6.7			5.5	6.4	6.2	7.1	6.9	6.4		4.7	2.3	
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	9.8	8.2	7.1			5.5	6.2	6.0	6.1	5.6	5.2		3.8	1.9	
Automatic debt dynamics	-0.1	0.0	0.9			-0.2	2.5	0.5	0.6	-0.2	-0.4		0.0	0.0	
Contribution from interest rate/growth differential	-0.1	-0.1	0.7			-0.8	2.1	0.5	0.5	-0.2	-0.4		0.0	0.0	
of which: contribution from average real interest rate	0.5	0.5	1.0			-0.8	2.6	1.2	1.3	0.8	0.5		0.6	0.3	
of which: contribution from real GDP growth	-0.5	-0.6	-0.3			0.0	-0.5	-0.7	-0.8	-1.0	-0.8		-0.6	-0.2	
Contribution from real exchange rate depreciation	0.0	0.1	0.3			0.6	0.3	0.0	0.1	0.0	-0.1		...	...	
Other identified debt-creating flows	4.4	1.9	1.7			1.3	1.2	1.0	1.0	0.8	0.7		0.3	0.1	
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	4.4	1.9	1.8			1.3	1.2	1.0	1.0	0.8	0.7		0.3	0.1	
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	-5.6	-0.3	-1.5			-0.4	0.1	-0.3	-0.2	-0.5	-0.3		-0.6	-0.3	
Other Sustainability Indicators															
PV of public sector debt	...	...	14.6			15.9	18.3	18.9	19.0	17.8	16.6		11.3	4.3	
of which: foreign-currency denominated	...	...	2.6			3.6	5.3	6.1	6.5	6.0	5.3		2.9	0.7	
of which: external	...	...	2.6			3.6	5.3	6.1	6.5	6.0	5.3		2.9	0.7	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	5.1	4.2	8.0			6.8	7.8	7.5	7.2	7.0	7.0		8.1	3.6	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	217.2			291.9	285.8	305.1	266.2	257.3	261.3		240.5	188.2	
PV of public sector debt-to-revenue ratio (in percent)	...	...	217.2			292.0	285.8	305.1	266.3	257.3	261.3		240.5	188.2	
of which: external 3/	...	...	38.1			66.8	82.2	97.7	91.6	86.6	82.9		62.3	29.4	
Debt service-to-revenue and grants ratio (in percent) 4/	12.4	12.7	54.9			61.3	58.4	56.4	54.7	58.9	63.3		111.2	84.6	
Debt service-to-revenue ratio (in percent) 4/	12.4	12.7	54.9			61.3	58.4	56.4	54.7	58.9	63.3		111.2	84.6	
Primary deficit that stabilizes the debt-to-GDP ratio	1.3	-1.7	-1.2			-0.7	-3.8	-1.2	-1.4	-0.1	0.0		0.3	0.2	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	5.5	6.2	2.8	6.3	2.1	0.1	3.5	4.0	4.1	5.2	4.6	3.6	4.8	5.0	4.9
Average nominal interest rate on forex debt (in percent)	2.1	1.6	3.4	9.3	12.8	3.2	4.8	5.7	3.5	4.0	4.8	4.4	2.5	2.6	3.0
Average real interest rate on domestic debt (in percent)	5.9	6.5	9.4	3.9	3.8	-5.9	22.4	9.2	10.7	6.5	4.1	7.8	7.2	7.0	7.2
Real exchange rate depreciation (in percent, + indicates depreciation	0.0	8.8	15.8	5.1	7.8	28.2	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	5.9	4.7	2.9	7.5	3.3	19.6	-9.3	1.9	0.3	4.0	6.3	3.8	4.3	4.4	4.3
Growth of real primary spending (deflated by GDP deflator, in percer	-4.0	-11.5	-10.4	-2.8	4.8	-22.7	17.2	0.2	5.0	-2.9	-3.1	-1.0	-2.1	-1.3	-1.7
Grant element of new external borrowing (in percent)	...	...	...	...	...	29.5	27.9	21.8	23.0	25.0	25.2	25.4	25.3	25.7	...

Sources: Country authorities; and staff estimates and projections.

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.

Annexure 5b: Sensitivity Analysis for Key Indicators of Public Debt 2016-2036

	Projections							
	2016	2017	2018	2019	2020	2021	2026	2036
PV of Debt-to-GDP Ratio								
Baseline	16	18	19	19	18	17	11	4
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	16	17	16	16	14	13	5	-10
A2. Primary balance is unchanged from 2016	16	19	19	21	21	21	22	26
A3. Permanently lower GDP growth 1/	16	18	19	19	18	17	13	10
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	16	18	19	19	17	16	11	3
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	16	21	24	24	23	23	18	14
B3. Combination of B1-B2 using one half standard deviation shocks	16	19	20	20	19	17	12	4
B4. One-time 30 percent real depreciation in 2017	16	19	20	20	19	18	13	7
B5. 10 percent of GDP increase in other debt-creating flows in 2017	16	28	29	30	29	29	26	24
PV of Debt-to-Revenue Ratio 2/								
Baseline	292	286	305	266	257	261	240	188
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	292	263	260	219	207	202	115	-446
A2. Primary balance is unchanged from 2016	292	289	313	288	301	330	469	1142
A3. Permanently lower GDP growth 1/	292	287	309	272	266	274	285	421
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	292	283	301	262	252	254	225	133
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	292	324	387	342	339	354	393	618
B3. Combination of B1-B2 using one half standard deviation shocks	292	293	322	279	269	273	247	171
B4. One-time 30 percent real depreciation in 2017	292	303	321	279	271	277	275	325
B5. 10 percent of GDP increase in other debt-creating flows in 2017	292	437	471	420	423	449	548	1054
Debt Service-to-Revenue Ratio 2/								
Baseline	61	58	56	55	59	63	111	85
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	61	57	52	46	46	47	73	-84
A2. Primary balance is unchanged from 2016	61	58	57	56	63	74	168	339
A3. Permanently lower GDP growth 1/	61	59	57	56	60	66	124	148
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	61	58	56	54	58	62	107	70
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	61	58	61	68	82	92	154	200
B3. Combination of B1-B2 using one half standard deviation shocks	61	57	56	57	64	69	113	79
B4. One-time 30 percent real depreciation in 2017	61	59	59	57	63	69	124	128
B5. 10 percent of GDP increase in other debt-creating flows in 2017	61	58	76	92	107	123	197	317

Sources: Country authorities; and staff estimates and projections.
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.
2/ Revenues are defined inclusive of grants.

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