DEBT MANAGEMENT OFFICE
NIGERIA

REPORT OF THE
2019
ANNUAL NATIONAL DEBT SUSTAINABILITY ANALYSIS (DSA)

TABLE OF CONTENTS

List of Tables

List of Figures

List of Box

List of Annexures

GLOSSARY

BOF	Budget Office of the Federation
CBN	Central Bank of Nigeria
CPIA	Country Policy and Institutional Assessment
CI	Composite Indicator
DSA	Debt Sustainability Analysis
DMO	Debt Management Office
ERGP	Economic Recovery & Growth Plan
EMBI	Emerging Market Bond Index
FCT	Federal Capital Territory
FDIs	Foreign Direct Investments
FGN	Federal Government of Nigeria
FMBNP	Federal Ministry of Finance, Budget and National Planning
GDP	Gross Domestic Product
GIFMIS	Government Integrated Financial Management Information System
ICM	International Capital Market
IMF	International Monetary Fund
IPPIS	Integrated Payroll and Personnel Information System
Mbpd	Million Barrels Per Day
MTDS	Medium-Term Debt Management Strategy
MTEF	Medium-Term Expenditure Framework
NBS	National Bureau of Statistics
NPV	Net Present Value
OAGF	Office of Accountant-General of the Federation
Pb	Per barrel
PPG	Public and Publicly Guaranteed
PV	Present Value
SEC	Securities and Exchange Commission
SF	Sinking Fund
SOEs	State-Owned Enterprises
TSA	Treasury Single Account
TTM	Term-To-Maturity

EXECUTIVE SUMMARY

1.0 Background

1.1 The Government recognises the need to ensure that the Total public debt remains sutainable in the medium to long-term by conducting annual DSA, which is consistent with macroeconomic framework, to assess the current and future debt levels, as well as its ability to meet debt service obligations as and when due, and without compromising growth and development.

1.2 The objective of the 2019 DSA is to evaluate the country's risk of debt distress, considering Nigeria's capacity to carry its current debt and future borrowings under both Baseline projections and Shock scenarios. Thus, it helps to inform the borrowing decisions of Government. The DSA, therefore, serves as a key input into the country's Medium-Term Expenditure Framework (MTEF), the Fiscal Strategy Paper (FSP), and the Federal Government of Nigeria (FGN) Annual Budget, as well as reflects Medium-Term Debt Management Strategy (MTDS). It also highlights Government's commitment to fiscal discipline in line with the Fiscal Responsbility Act.

1.3 The 2019 DSA Exercise was conducted from November 14-23, 2019 by the DMO and other stakeholders, namely: the Federal Ministry of Finance, Budget and National Planning (FMFBNP), Central Bank of Nigeria (CBN), Budget Office of the Federation (BOF), National Bureau of Statistics (NBS), and the Office of the Accountant-General of the Federation (OAGF).

2.0 Key Macroeconomic Assumptions

2.1 The 2019 DSA derives its Baseline assumptions from the 2019 Appropriation Act, and the 2020-2022 Medium-Term Expenditure Framework (MTEF) and Fiscal Strategy Paper (FSP), which reflect the key objectives and priorities of the Economic Recovery and Growth Plan (ERGP). Sustaining and accelerating inclusive growth, diversification of the productive base, and maintaining macroeconomic stability are among the key thrusts of the MTEF, which are consistent with the goals of the ERGP. In particular, the 2019 Federal Government Appropriation Act (2019 Budget) titled 'Budget of Continuity' was planned to further place the economy on the path of comprehensive, diversified and sustainable growth.

2.2 The Baseline scenario is predicated on improved medium-term outlook. Based on the 2019 Budget and MTEF projections, the real GDP is projected to moderate from 3.01 percent in 2019 to 2.93 in 2020, and then grow by 3.35 percent and 3.85 percent in 2021 and 2022, respectively. Headline inflation on year-on-year basis is estimated at 9.98 percent in 2019, while it is projected to inch to 10.81 percent in 2020, and then moderate to 10.52 percent and 10.79 percent in 2021 and 2022, respectively.

2.3 The ratio of Total Public Debt to GDP remained relatively low at 18.74 percent as at September 30, 2019. This compares favourably with the Country-Specific Debt Limit of 25 percent of GDP up to 2020, Public Debt to GDP threshold of 55 percent for countries in Nigeria's peer-group, as well as the West African Monetary Zone (WAMZ) Convergence Threshold of 70 percent of the GDP.

3.0 Methodology and Scope of Debt Coverage

3.1 The methodology for the 2019 DSA was based on the revised World Bank and International Monetary Fund (IMF) Low Income Countries (LIC) Debt Sustainability Framework (DSF), which was launched in July, 2018. It is anchored on a Composite Indicator (CI), which evaluates the Debt Carrying capacity of a country by combining the World Bank's CPIA score and other macroeconomic variables, such as real growth rate, remittances, import coverage of reserves and World Economic Growth.

3.2 The coverage of Total Public Debt in the 2019 DSA include the External Debt, which consist of External Debt of the FGN and that of the thirty-six (36) States and the FCT. The FGN borrow on behalf of the thirty-six (36) States and the FCT, as they are not allowed to directly borrow externally. It also includes the Domestic Debt, comprising the FGN Domestic Debt and the Domestic Debt of the thirty-six (36) States and the FCT.

4.0 Findings, Conclusions and Recommendations

4.1 Final Risk Rating

4.1.1 **The Final Risk Rating for the country from the outcome of the 2019 DSA revealed that Nigeria's External Debt remains at a Moderate Risk of Debt distress, but sensitive to Export shocks, while Nigeria's Total Public Debt remains sustainable, but subject to Revenue shocks.** The mechanical risk rating was applied to derive the Final Risk Rating, as the application of judegement was not necessary.

4.1.2 On the External Debt Sustainability Analysis, the results show that the ratio of External Debt to GDP remains below its indicative thrsehold under the baseline scenario, however, the ratios of Debt-to-Exports, Debt Service-to-Exports and Debt Service-to-Revenue breached their respective thresholds with Exports being the most extreme shock under the shock scenario. For the Total Public Debt Sustainability Analysis, the ratio of Public Debt to GDP remains under its benchmark under the baseline scenario, but the revenue-related debt indicators were high under the shock scenario, indicating a revenue challlenge. The ongoing efforts by the government towards improving revenue generation and diversifying the economy to enhance exports, through various initiatives and reforms in the Oil and Gas, Agriculture and Solid Minerals sectors, Tax Administration and Collections, as well as the Strategic Revenue Growth Initiative with the recent signing into law the Finance Act by Mr. President, which takes effect from February 1, 2020 would improve the outlook for Total Public Debt with enhanced revenue performance. Thus, the Export and Revenue-related indicators and borrowing space are expected to improve in the medium to long-term.

4.1.3 The downside risks to Risk Rating include the limited debt data coverage, oil price volatility and oil production shocks, macroeconomic uncertainties, sustaining efforts on implementing the goals of ERGP, tight global financial conditions and global economy, which could negativelty affect exports and revenue.

4.1.4 With Moderate External Debt Risk Distress Rating, the country's Borrowing Space, otherwise referred to as Granularity, was assessed. The findings show that there is Some Space to Borrow based on the country's current revenue performance. The ratio of External Debt Service-to-Revenue trended towards its threshold, and breached it by 2021. With the concerted efforts by government to improve revenue through various initiatives and reforms in the various sectors of the economy, which are highlighted above, the country's borrowing space is expected to be enhanced considerably.

4.2 Conclusion

4.2.1 The Final Risk Rating for the country from the outcome of the 2019 DSA revealed that Nigeria's External Debt remains at a Moderate Risk of Debt distress with some Space to accommodate shocks, while Nigeria's Total Public Debt remains sustainable, but subject to Revenue shocks. The ongoing efforts by the government towards improving revenue generation and diversifying the economy to enhance exports, through various initiatives and reforms in the Oil and Gas, Agriculture and Solid Minerals sectors, Tax Administration and Collections, as well as the Strategic Revenue Growth Initiative with the recent signing into law the Finance Act by Mr. President, which increases the Value Added Tax (VAT) from 5 percent to 7.5 percent, effective February 1, 2020 would improve the outlook for Total Public Debt with enhanced revenue performance. Thus, the Export and Revenue-related indicators and Borrowing Space are expected to improve in the medium to long-term.

4.3 Recommendations

The key policy recommendations of the 2019 DSA exercise include:

4.3.1 Borrowing Limit for 2019

The Borrowing Limit for 2020 is determined based on the 25 percent Country-Specific Debt Limit (up to 2020) for the Total Public Debt-to-GDP ratio. Given that the DSA projected Total Public Debt-to-GDP ratio is 19.1 percent by end-December 2019, the fiscal space available for borrowing is estimated at 5.9 percent. However, based on the projected 2020 GDP of US$468 billion, the Borrowing for the fiscal year will be US$27.61 billion or 5.90 percent of US$468 billion. Therefore, the maximum amount that may be borrowed in the fiscal year 2020 without breaching the Country-Specific Debt Limit is US$27.61 billion. In line with the country's Debt Management Strategy, the proposed New Borrowing could be raised in equal proportion of 50:50 from both Domestic and External sources as follows:

- New Domestic Borrowing US$13.806 billion (equivalent of about ₦4.211 trillion); and,
- New External Borrowing: US$13.806 billion (equivalent of about ₦4.211trillion).

4.3.2 Boosting Government Revenues

The Government should focus on sustaining the ongoing initiatives and reforms aimed at boosting revenue generation. These include: Strategic Revenue Growth Initiative with the recent signing into law the Finance Act by Mr President, which would increase the Value Added Tax (VAT) from 5 percent to 7.5 percent, effective February 1, 2020; Deep Offshore and Inland Basin Production Sharing Contract; as well as Solid Mineral sector reforms. In addition, there is the need to also sustain the implementation of the Treasury Single Account (TSA), Government Integrated Financial Management Information System (GIFMIS) and Integrated Payroll and Personnel Information System (IPPIS) aimed at strengthening Public Financial Management, as well as enhance the efficiency and quality of spending. All these initiatives and reforms are necessary for enhancing the country's resilience to revenue shocks.

4.3.3 Leveraging on Private Sector Financing to support Infrastructural Development.

Given the huge funding requirements for development of critical infrastructure and other capital projects vis-a-vis the current low revenue performance, there is the need for the Government to explore the use of Off-Balance Sheet arrangements to fund such capital-intensive projects. Some of the arrangements include: Public Private Partnerships (PPPs) – particularly Concessioning Schemes to attract Private Sector participating in the delivery of viable infrastructural projects, which may require the issuance of Sovereign Guarantees for selected priority and high-impact projects.

4.3.4 Close Monitoring of Contingent Liabilities

The Contingent Liabilities may present fiscal risk in the medium to long-term, if it continues rising without effective monitoring. The crystalization of contingent liabilities with unexpected increase in debt may lead Total Public Debt to an unsustainability path. Therefore, there is need to intensify the ongoing efforts towards developing a framework for identifying, estimating, disclosing, managing and containing contingent liabilities, especially those arising from State-owned Enterprises (SOEs).

4.3.5 Effective Implementation of the SF-TAS programme

To sustain effective implementation of the SF-TAS programme aimed at strengthening public financial management at the sub-national level, to ensure that the 36 States and the FCT are able to achieve fiscal transparency and accountability, domestic revenue mobilisation, effeciency in public expenditure, and debt sustainability. This would enhance overall sustainability of the Public Debt Sustainability in the medium to long-term.

CHAPTER ONE
BACKGROUND AND OBJECTIVES

1.1 Background

1.1.1 The Government recognises the need to ensure that Total public debt remains sutainable in the medium to long-term, by conducting annual DSA, which is consistent with macroeconomic framework, to assess the current and future debt levels, as well as its ability to meet debt service obligations as and when due, and without compromising growth and development.

1.2 The 2019 DSA Exercise was conducted from November 14-23, 2019 by the DMO and other stakeholders, namely: the Federal Ministry of Finance, Budget and National Planning (FMFBNP), Central Bank of Nigeria (CBN), Budget Office of the Federation (BOF), National Bureau of Statistics (NBS), and the Office of the Accountant-General of the Federation (OAGF).

1.2 Objectives of 2019 DSA

1.2.1 The objective of the 2019 DSA is to evaluate the country's risk of debt distress, considering Nigeria's capacity to carry current debt and its future borrowings under both Baseline projections and Shock scenarios. Thus, it helps to inform the borrowing decisions of Government. The DSA, therefore, serves as a key input into the country's Medium-Term Expenditure Framework (MTEF), the Fiscal Strategy Paper (FSP), and the FGN Annual Budget, as well as Medium-Term Debt Management Strategy (MTDS). It also highlights Government's commitment to fiscal spending in line with the Fiscal Responsbility Act, 2007.

1.2.2 The 2019 DSA Report is divided into seven (7) Chapters, as outlined below:

Chapter 1 –Background and Objectives of 2019 DSA

Chapter 2 –Methodology and Scope of Debt Coverage

Chapter 3 – Public Debt Portfolio Review

Chapter 4 – Macroeconomic Assumptions

Chapter 5 – Realism of Baseline Projections

Chapter 6 – Result and Analysis

Chapter 7 – Final Risk Rating, Conclusion and Recommendations

CHAPTER TWO

METHODOLOGY AND SCOPE OF DEBT COVERAGE

2.1 Methodology

2.1.1 The methodology for the 2019 DSA was based on the revised World Bank and IMF LIC-DSF, which evaluates the Debt Carrying Capacity of a country based on the Composite Indicator (CI) score. The revised Framework also incorporates the Realism Tools, that assess the reasonableness of key macroeconomic and debt projections, as well as, Granularity, which measures the borrowing space available to absorb shocks in moderate risk countries.

2.1.2 The 2019 DSA covers two main parts: First, the Public and Publicly Guaranteed External Debt Sustainability Analysis (External DSA), which covers the External Debt of the Federal Government of Nigeria (FGN) and the thirty-six (36) States of the Federation and the FCT. The second part is the Public DSA (Fiscal DSA), which comprises External and Domestic Debts of the FGN, States and FCT.

2.1.3 The 2019 DSA covers 10-year historical period, 2009-2018 and a 20-year projection 2019-2039, under various macroeconomic assumptions and Stress scenarios. The Realism Tools were also applied to assess the credibility of the forecasts. The outcomes of the exercise were used to compare the country's debt sustainability indicators against international debt burden thresholds and benchmark, which measure the Solvency and Liquidity positions of the country.

2.1.4 With the reclassification of Nigeria as a Lower-Middle-Income country, it is expected that the country will migrate to the Market Access (MAC) DSA framework, given the country's visibility in the ICM, raised about US$10.2 billion between 2017 and 2018.. However, the revised LIC-DSF was used in 2018 and adopted for the 2019 DSA, because the proportion of concessional debt still account for over 50 percent of the country's External Debt portfolio as at September 30, 2019. Furthermore, the LIC-DSF provides thresholds/Benchmarks with early warning signals of potential risk of debt distress, which forms the basis for guiding the Government in its borrowing decisions.

2.2 Country Classification and Determination of Stress Test Scenario

2.2.1 Like the previous DSA, the country's debt carrying capacity is guided by the CI score. The CI is determined by combining the World Bank's CPIA score and other variables from macroeconomic framework such as real growth rate, remittances, import coverage of reserves and World Economic Growth. The CI evaluates a country's debt-carrying capacity, and classifies countries into one of three categories: Weak (CI<2.69); Medium (2.69≤CI≤3.05); and, Strong Policy (CI>3.05). Nigeria is classified as a Medium Performer with a score of 2.87.

2.2.2 The Debt carrying capacity is classified into five (5) Indicators: four (4) External Debt Burden Thresholds – two (2) Solvency and two (2) Liquidity indicators, and one (1) Solvency Benchmark for Total Public Benchmark - Fiscal block (combined External and Domestic Debt). The Fiscal Benchmark and External Debt Thresholds are shown in Table 2.1.

Table 2.1: Fiscal and External Debts Thresholds

Composite Indicator (CI)	Solvency Ratio			Liquidity Ratio	
	Fiscal	External	External	External	External
		NPV of Debt as a % of		Debt Service as a % of	
	GDP	GDP	Export	Revenue	Export
Weak	35	30	140	14	10
Medium	55	40	180	18	15
Strong	70	55	240	23	21

Source: World Bank/IMF

2.3 Scope of the 2019 DSA Debt Coverage

2.3.1 The coverage of Public Debt is consistent with the previous DSA. The Total Public Debt stock covers Public and Publicly guaranteed External Debt and Public Domestic Debt. The External Debt consist of External Debt of the FGN and that of the thirty-six (36) States and the FCT. The FGN borrow on behalf of the thirty-six (36) States and the FCT, as they are not allowed to directly borrow externally. The Domestic Debt comprised FGN Domestic Debt and the Domestic Debt of the thirty-six (36) States and the FCT. The SOEs debt were excluded, as the approval process for its inclusion was ongoing at the time of exercise. However, it is expected that the coverage of public sector debt would be broadened, when the exercise is concluded. External Debt is defined on Residency basis.

A. Please select "X" for each subsector of the public sector below when it is covered in your public debt data.

	Subsectors of the public sector	Check box
1	Central government	X
2	State and local government	X
3	Other elements in the general government	
4	o/w: Social security fund	
5	o/w: Extra budgetary funds (EBFs)	
6	Guarantees (to other entities in the public and private sector, including to SOEs)	
7	Central bank (borrowed on behalf of the government)	
8	Non-guaranteed SOE debt	

2.3.2 Public debt coverage and the magnitude of the Contingent Liability tailored stress test. The magnitude of shock of Contingent Liabilities could pose as additional potential risk, which could emanate from the SOEs, whose debt are yet to be captured in the debt data coverage.

B. Please customize elements of the contingent liability tailored test, as applicable.

1	The country's coverage of public debt	The central, state, and local governments		
		Default	Used for the	Reasons for deviations from the default settings
2	Other elements of the general government not captured in 1.	0 percent of GDP	2	
3	SoE's debt (guaranteed and not guaranteed by the government) [1/]	2 percent of GDP	2	
4	PPP	35 percent of PPP stock	0.00	
5	Financial market (the default value of 6 percent of GDP is the minimum value)	5 percent of GDP	5	
	Total (2+3+4+6) (in percent of GDP)		9.0	

[1/] The default shock of 2% of GDP will be triggered for countries, whose government-guaranteed debt is not fully captured under the country's public debt definition (1.). If it is already included in the government debt (1.) and risks associated with SoE's debt not guaranteed by the government is assessed to be negligible, a country team may reduce this to 0%.

The Contingent Liability tailored test was adjusted to account for the debt data coverage gap highlighted above. Consequently, the default shock of 0 percent of GDP for other elements of the general government not captured on the baseline of stock of debt was raised from 0 to 2 percent. Moreover, the default of 5 percent of GDP for Nigerian financial market stress test remain unchanged as Nigeria's financial sector did not indicate any significant vulnerabilities that could have warranted an upward adjustment of the value of 5 percent of GDP for the financial market shock. The second tailored stress test is the commodity shock , which is induced by one-off shock of 10 percent of GDP to External Debt-to-GDP ratio in 2019, as the country is exposed to volatility in oil price.

2.3.3 The Standardized Stress Tests: Standard Stress Tests are conducted by incorporating the impact of temporary shocks onto the evolution of debt burden indicators in both External and Public DSA. Under the External DSA, the debt burden indicators would deteriorate if the exchange rate depreciates, decline in export growth is lower than the historical average or there is a decline in non-debt creating flow (FDI). For the Public DSA, the stress test covers shocks in Primary Balance and lower GDP growth than the historical average.

2.4 Risk Rating

1.4.1 The LIC-DSF Final Risk Rating classifies countries into four broad categories, namely: Low, Moderate, High and in Debt Distress, according to their levels of probability of Debt Distress as explained below.

i. **Low Risk of Public Debt Distress**: Where the Public and Publicly Guaranteed (PPG) External Debt and the Total Public Debt-to-GDP ratio remain below its benchmarks under the Baseline and the most Extreme shocks.

ii. **Moderate Risk and Debt Distress**: Where the PPG of External Debt has a moderate risk signal or if the PPG External Debt is low and the Total Public Debt stock indicator breaches its benchmark under stress tests.

iii. **High Risk of Public Debt Distress**: Where any of the four external debt burden indicators of the total Public Debt burden indicator breach their corresponding threshold/benchmark under the baseline.

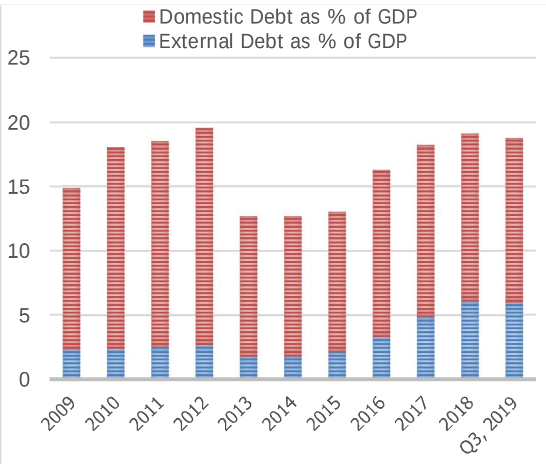
In Debt Distress: A situation where a country is already experiencing difficulties in servicing its debts, as evidenced, for example by the existence of arrears.

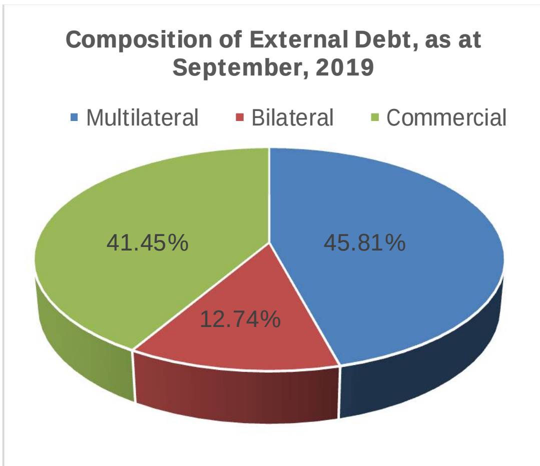
CHAPTER THREE
PUBLIC DEBT PORTFOLIO REVIEW

3.1 Evolution and Composition of Debt

3.1.1 The FGN's Total Public Debt outstanding was ₦26,214,981.13 million (US$85,390.82 million), as at September 30, 2019 compared to ₦24,387,071.74 million (US$79,436.71 million) in 2018, representing an increase of ₦1,827,909.39 million or 7.50 percent in Niara terms (Figure 3.1).This comprised External Debt (FGN, States and FCT) of ₦8,271,040.50 million (US$26,941.50 million) or 32 percent and Domestic Debt of FGN, States and FCT ₦17,943,940.63 million (US$58,449.32 million) or 68 percent in Quarter 3, 2019.

3.1.2 The ratio of Total Public Debt to GDP remained relatively low at 18.74 percent as at September 30, 2019. This compares favourably with the Country-Specific Debt Limit of 25 percent of GDP, Public Debt to GDP threshold of 55 percent for countries in Nigeria's peer-group, as well as the West African Monetary Zone (WAMZ) Convergence Threshold of 70 percent of GDP. Furthermore, efforts to achieve the target of the public debt composition of 60:40 ratio for domestic and external debt are being intensified. The other target of attaining 75:25 ratio for long to short-term debt in the domestic debt portfolio has been exceeded by the end of September 2019.





The composition of External Debt in Quarter 3, 2019, shows that Multilateral and Bilateral sources accounted for US$12,343.17 million (45.81 percent) and US$3,429.98 million (12.73 percent), respectively of the Total External Debt. Other sources of External Debt were Commercial debt consisting of Eurobonds and Diaspora Bond, which together accounted for US$11,168.36 million (41.45 percent).

CHAPTER FOUR

MACROECONOMIC ASSUMPTIONS

The 2019 DSA derives its Baseline assumptions from the 2019 Appropriation Act, and the 2020-2022 Medium Term Expenditure Framework (MTEF), and Fiscal Strategy Paper (FSP), which reflect the key objectives and priorities of the Economic Recovery and Growth Plan (ERGP). Sustaining and accelerating inclusive growth, diversification of the productive base, and maintaining macroeconomic stability are among the key thrusts of the MTEF, which are consistent with the goals of the ERGP. In particular, the 2019 Federal Government Appropriation Act (2019 Budget) was planned to place the economy on the path of inclusive, diversified and sustainable growth. The Baseline macroeconomic assumptions underpinning the 2019 DSA are outlined below.

Box 4.1: Baseline Scenario Assumptions

Real and Nominal GDP Growth: Based on the 2019 Budget and MTEF projections, the real GDP is expected to moderate from 3.01 percent in 2019 to 2.93 in 2020, and then grow by 3.35 percent and 3.85 percent in 2021 and 2022, respectively. Whereas the nominal GDP is estimated to increase from ₦139,652.7 billion in 2019 to ₦142,960.5 billion in 2020, and then to ₦159,490.5 billion in 2021, and ₦179,584.9 billion in 2022. Similarly, consumption expenditure is projected to grow from ₦119,281.6 billion in 2019 to ₦122,752.4 billion in 2020, and then to ₦136,214.7 billion and ₦151,079.7 billion in 2021 and 2022, respectively, indicating gradual stability in growth recovery. The growth in the period is predicated on sustaining effective implementation of the goals of ERGP. Government is expected to continue its fiscal strategy of directing resources to the most productive and growth-enhancing sectors, including Security, Infrastructure (especially Power and Transportation), Agriculture, Manufacturing, Housing and Construction, Education, Health and Water Resources within the period.

Inflation Rate: Headline inflation on year-on-year basis is estimated at 9.98 percent in 2019, while it is projected to inch up to 10.81 percent in 2020, and then moderate to 10.52 percent and 10.79 percent in 2021 and 2022, respectively. The moderation in inflation in the period is premised on the anticipated impact of Government programmes in the various sectors of the economy. The trend reflects the expected coordination of fiscal and monetary policies, as well as pragmatic management of the foreign exchange market. The outcome will be achieved through policies that seek to remove uncertainty in the exchange rate and restore investors' confidence in the market. These include strategies to reduce market interest rates, moderate inflationary pressures, provide critical infrastructure to lower the cost of doing business, and stabilize exchange rate. Continued exchange rate stability will also control pass through on inflation. Beyond the projected period, inflation is expected to remain in the single digit region, averaging 8.59 percent per annum.

Crude Oil Production: The crude oil production, which averaged 2.3 million barrels per day (mbpd) in 2018 is expected to remain at 2.3 mbpd in 2019, and then decline to 2.18 mbpd in 2020, and then improve to 2.22 mbpd and 2.36 mbpd in 2021 and 2022 respectively. Beyond the projection period, production is estimated to average 2.40mbpd due to the concerted efforts by Government to curb corruption, illegal bungering and increase investment in the oil sector. The expected presidential assent to the Petroleum Industry Governance Bill in 2020, as well as government and stakeholders' engagement to maintain peace in the Niger-Delta region will also impact positively on the oil sector.

Crude Oil Benchmark Price: The 2018 oil price benchmark of US$51 per barrel (pb) is expected to increase to US$60pb in 2019 and moderate to US$55pd throughout the projection period, and beyond up to 2039. The anticipated weakening in global oil prices, predicated on the projected slow economic growth for major economies is the main reason for the moderation in the benchmark oil price. Growth in the United States is projected to decline from 2.3 percent in 2018 to 1.7 percent in 2019 and 2020, China's growth momentum will slow from 6.6 percent in 2018 to 6.1 percent in 2019 and 5.8 percent in 2020. Growth in Euro Area will decline from 1.9 percent in 2018 to 1.2 percent in 2019, but improve marginally to 1.4 percent in 2020.

Export

Export is expected to grow during the projected period, driven largely by expected improvement in domestic crude oil production, and the slow but gradual global economic recovery, which is likely to boost demand and sustain the increase in oil prices at the international market. In addition, government's efforts to diversify the economy through policy measures in the critical sectors of the economy, particularly the interventions by the CBN is expected to drive growth in non-oil export. The relative stability in the foreign exchange market is also likely to enhance the competitiveness of non-oil export, thereby improving its contribution to total trade.

Current Account Position

The current account is expected to record a deficit in the short-term, spurred by increase in non-oil imports and services payments. However, it is believed that the steady increase in crude oil prices at the international market and sustained inflow of remittances are expected to impact positively on the current account. Thus, the current account balance is expected to swing to the traditional surplus position in the medium to long-term horizon.

Foreign Direct Investments

Sustained political stability, improved macroeconomic conditions, infrastructural development drive, economic reforms, particularly in the oil and transportation sectors, and the relative stability in the foreign exchange market are the major factors expected to drive growth in Foreign Direct Investment (FDI) inflow in the short to medium term. However, a gradual but sustained recovery of the advanced economies is expected to dampen growth in FDI flows in the longer term horizon.

Remittances

The gradual recovery in the global economy is expected to further enhance the inflow of workers' remittance in the short, medium to long-term horizon. This is expected to impact positively on the current account.

External Reserves

External reserves at the end of December 2018 was US$42.59 billion and could finance 7.1 months of imports of goods and services, and 12.5 months of import of goods only. At the end of October 2019, the gross external reserves stood at US$39.60 billion, a decline of US$2.99 or 7.02 percent when compared with the level at the end of December 2018. The decline was due to increased intervention in the foreign exchange market by the CBN. However, the reserves could finance 5.1 months of imports of goods and services and 8.7 months of import of goods only, higher than the 3-month international benchmark.

Nominal Exchange Rate

The Nominal Exchange Rate is expected to remain stable in the short, medium and long-term as a result of the sustained robust foreign exchange policy by the CBN. The Investors and Exporters (I&E) window has further boosted liquidity in the foreign exchange market, thereby curbing demand pressure in the short- term horizon.

Fiscal Deficit: The approved fiscal deficit for 2019 was ₦1.918 trillion or 1.38 percent of GDP, relative to ₦1.954 trillion or 1.73 in 2018. However, it is projected to decline to ₦1.847 trillion or 1.29 percent in 2020, ₦2.050 trillion or 1.29% in 2021 and ₦1.667 or 0.93% in 2022. The fiscal deficit beyond the projected period is estimated to average ₦1.371 trillion or 0.28% percentage of GDP. The Projected decline in fiscal deficit is hinged on the anticipated improvement in oil and non-oil revenues, due to the various initiatives and reforms by Government, as well as efficiency and quality of spending.

New Financing: New financing will continue to be in line with the country's Debt Management Strategy. The Strategy for maximization of available funding envelopes from concessional and semi-concessional external sources before exploring other external funding sources will be maintained. The funding strategy supports the reduction of debt servicing and borrowing costs by gradually moving towards achieving the strategic composition target of 60:40 ratio for domestic and external debt, as well as attaining the 75:25 ratio for long to short-term debt in the domestic debt portfolio has been exceeded as at September 30, 2019. This would help to minimize refinancing risk by reducing the component of short-term debt instruments with longer-tenored external financing. New financing is expected to reduce consistently throughout the projected period due to the anticipated improvement in oil and non-oil revenues occasioned by the initiatives and reforms of Government, and thereby lower the fiscal deficit.

CHAPTER FIVE

REALISM OF BASELINE PROJECTIONS

5.1 Introduction

5.1.1 The Realism tools used to assess the credibility of the Baseline projections include: Drivers of Debt Dynamics, Fiscal Adjustments and Growth Relationship, Planned Fiscal Adjustments, and Growth and Investment Relationship. The Realism tools do not show any risk to the Baseline projections, and are also in line with the historical, indicating the reasonableness in the forecast.

5.2 Drivers of Debt Dynamics

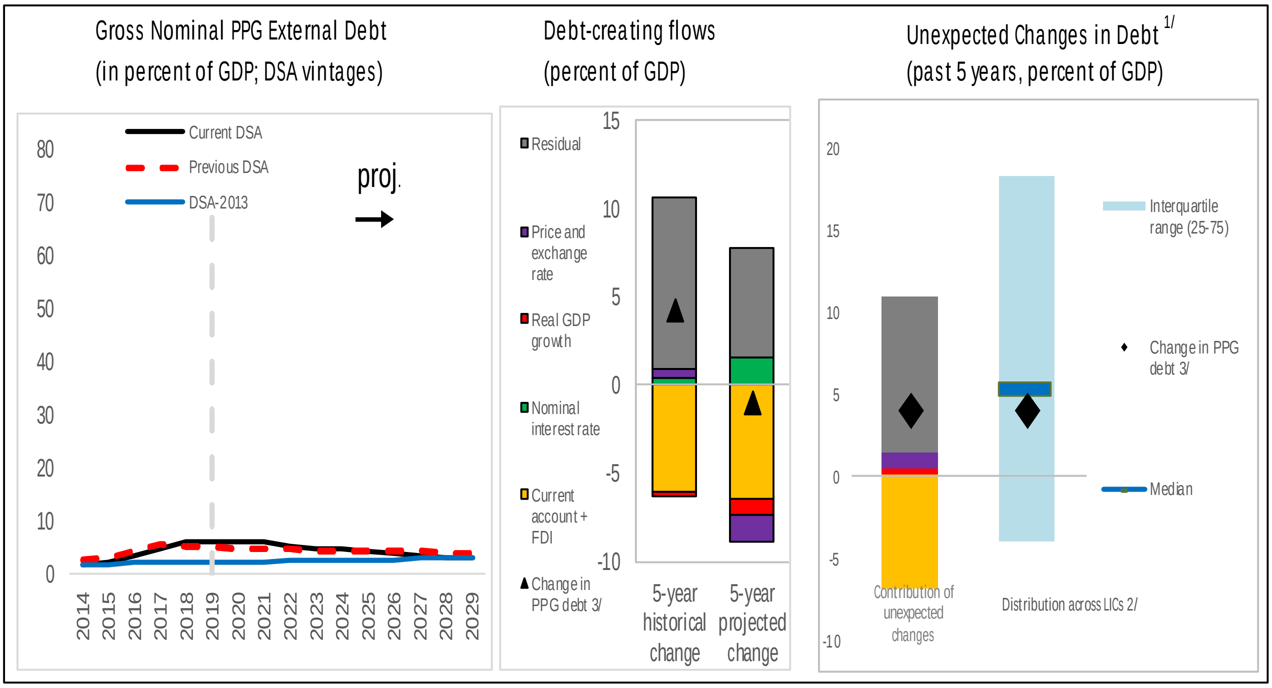
5.2.1 The current DSA and previous DSA are consistent, while there are deviations from the 2013 DSA projection. The increase in the ratio of Public Debt as a percentage of GDP, which was assumed reached its peak in 2020, indicating significant borrowing, and thereafter started trending downward (Figure 5.1). The Government financing need is expected to be funded through concesional sources and market-based financing to fund huge infrastructure demand in order to stimulate economic growth.

5.2.2 The External Debt dynamics were mainly driven by Current Account deficit, Foreign Direct Investments (FDIs) and Exchange Rate as reflected in the debt creating flows that contributed to increases in External debt in the past, which could help to gauge future debt trajectory. Comparing the 5-year historical and forecast indicates that the projected change in debt will be driven by Current Account and FDIs, nomirnal Interest Rate, real GDP growth and Exchange Rate. The Current Account Deficit is enlarged due to the volatility in Oil Exports, while the forecast error presents a large positive Residual, which may be private financing under other investment flow in the Balance of Payment that are yet to be recognised.

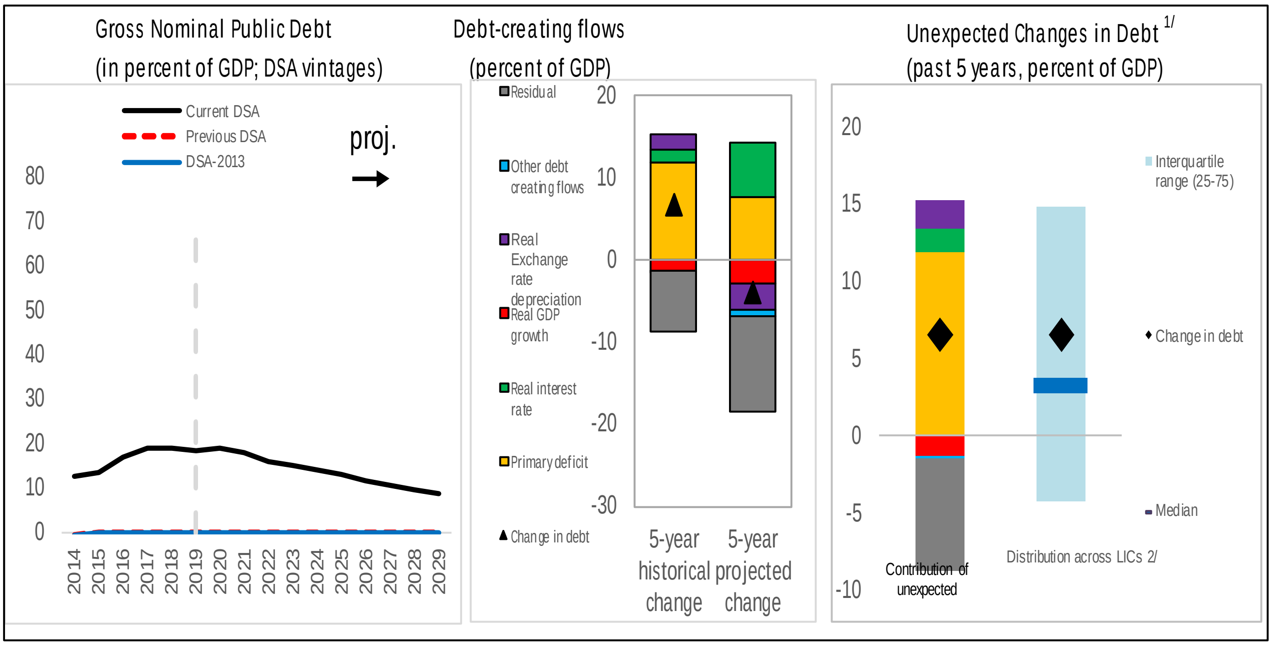
5.2.3 For Total Public Debt, the main drivers of debt in the 5-year historical has been Primary Deficit. Other drivers of Debt are the real Interest Rate, real GDP growth and real Exchange Rate Depreciation (Figure 5.1b). The negative Residual in the Total Public Debt reflects the Contingent liabilities, which constitute downside risk to the baseline projections. The drivers of Debt in the Projected 5-year Change in Total Public Debt would largely remain unchanged as in the 5-year historical.

Figure 5.1: Nigeria's Drivers of Debt Dynamics – Baseline Scenario

a. External Debt



b. Public Debt



1/ Difference between anticipated and actual contributions on debt ratios.
2/ Distribution across LICs for which LIC DSAs were produced.
3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

5.3 Fiscal Planned Adjustment

5.3.1 The mechanism identifies the planned fiscal adjustment over a 3-year horizon and evaluates the credibility of the fiscal framework. The projected 3-year fiscal adjustment in the primary balance at 1.5 percent of the GDP lies below the top quartile of the distribution of past adjustments to the primary fiscal deficit (above 2 percentage point in GDP) derived from the samples of LICs. This being below the benchmark of 2.5 percent of GDP, indicates that the planned fiscal adjustments are supported by credible fiscal frameworks (Figure 5.2a). This is as a result of the Government's commitement to fiscal discipline as guided by the Fiscal Responsibility Act (FRA), 2007.

5.4 Fiscal Adjustment and Growth

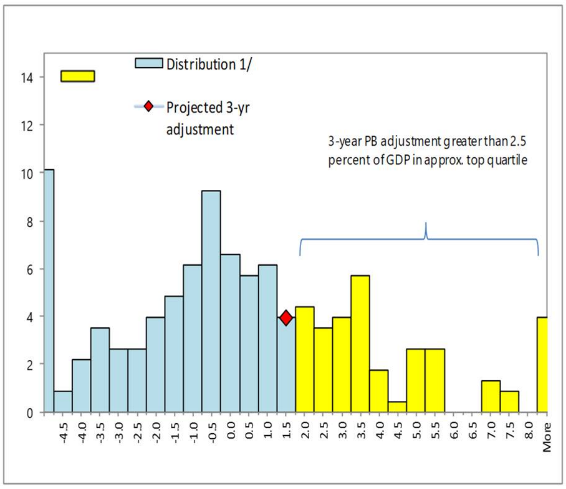
5.4.1 The Fiscal Adjustment and Growth defines the relationship between fiscal adjustments and GDP growth assumptions and gauges deviations between baseline growth projections and cross-country experiences (with estimated average of 0.4 for LICs). The projected economic growth of 3.01 percent of GDP in 2019, which is higher than the growth rate of 1.3 to 1.7 percent of GDP assumed by the multiplier appeares over optimistic. The Baseline real GDP growth projection being higher than the the growth rate under the plausible fiscal multiplier is an indication of inflows of FDIs (Figure 5.2b). However, the projected relatively large real GDP growth of about 2.93 percent in 2020, is expected to be driven by the favourable oil prices, continued implementation of the Government's initiatives and reforms to enhance revenue as contained in the ERGP, and positive domestic economic outlook, which is expected to boost domestic and foreign private investments.

5.5 Growth and Investment

5.5.1The Growth and Investment mechanism evaluates the impact of public investment on projected growth assumptions. The projected growth rates are decomposed into two components, which are changes in government capital stock, due to efficiency in public investments, and changes in growth due to other sources. These components are then compared with historical data and previous projections (Figure 5.2c). The result shows that the contribution of public investment to real GDP growth, which was significantly high in the 2018 DSA is comparatively lower in the 2019 DSA. However, the 2019 DSA is consistent with historical contribution to growth, but then contribution to growth from public investment is lower, indicating that projected growth in the economy was coming from private investments (Figure 5.2d).

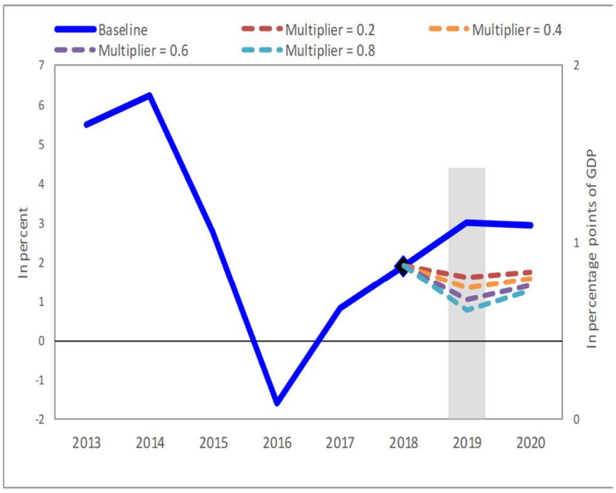
Figure 5.2: Nigeria's Realism Tools

a. Fiscal Planned Adjustment Growth



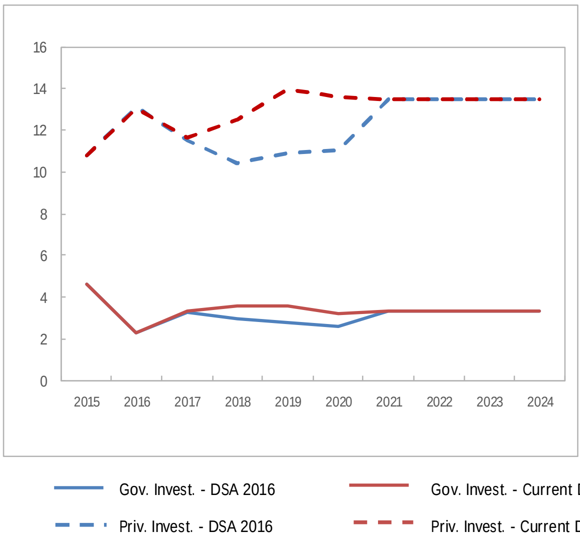
[1/] Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

b. Fiscal Adjustment and

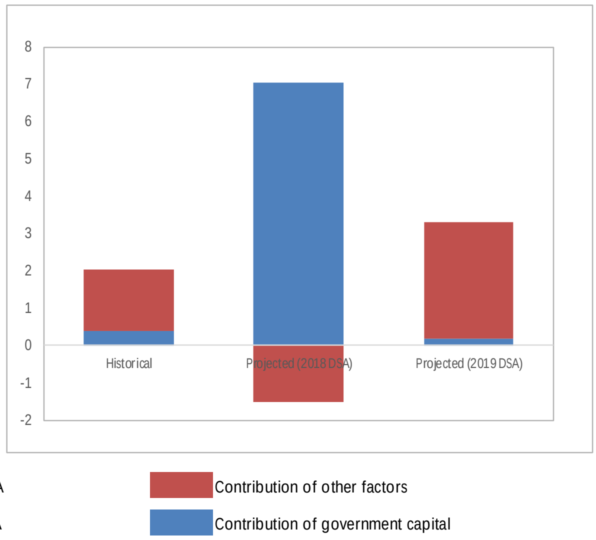


[1/] Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

c. Public and Private Investment Rates (as % of GDP)



d. Contribution to Real GDP Growth (as % of 5-Year Average)



CHAPTER SIX
RESULT AND ANALYSIS

6.1 Extenal Debt Sustainability

6.1.1 **The outcome of the 2019 DSA shows that External Debt remains at a Moderate Risk of Debt Distress.** This is because all the debt burden indicators, both the Solvency and Liquidity Indicators remain below their respective thresholds throughout the projection period, under the Baseline Scenario. However, the ratios of External Debt-to-Exports, External Debt Service-to-Exports and External Debt Service-to-Revenue show some breaches under the Most Extreme Shock scenarios (Table 6.1). This highlights the narrow export base of the country, which is concentrated on oil, and thus subject to oil price shocks. It is to be noted, however, that the ongoing initiatives by the Government to boost Exports and Revenue, as well as efforts to create favourable environment to attract more non-debt creating flows such as Foreign Direct Investments (FDIs) are expected to moderate the Export shocks in the medium to long-term. Further details are shown in Annexure I.

Table 6.1: External Debt Sustainability Indicators in Percent (2019-2039)

Details	Threshold	2019	2020	2021	2022	2023	2024	2029	2039
		External Debt Stock							
In Percent of GDP	40	6.8	6.9	6.3	5.6	5.2	4.9	3.0	0.7
In percent of Exports	180	49.1	48.6	46.7	44.8	42.7	40.9	29.6	9.6
		External Debt Service							
In percent of Exports	15	2.3	3.6	4.2	4.6	4.2	3.5	3.8	1.7
In percent of Revenue	18	6.4	9.5	12.5	12.7	11.9	10.4	10.7	4.1

Source: 2019 DSA

Note: The Thresholds are determined periodically by the WB/IMF, based on the CI Rating Exercise.

6.2. Fiscal Sustainability Analysis (FGN-Only)

6.2.1 The Fiscal sustainability of the FGN-only covers the External Debt (FGN and 36 States and FCT), FGN's Domestic Debt and Revenues. The revised LIC-DSF provides only one Benchmark for the determination of Total Public Debt or Fiscal sustainability. The recommended Benchmark of Total Public Debt as a percentage of GDP for Medium performing countries, which includes Nigeria is 55 percent. The ratio of FGN Public Debt-to-GDP is projected to remain low throughout the period, showing that the Total FGN Debt is sustainable in the medium to long-term, as shown in Table 6.2. The revised DSA Framework does not provide Benchmarks for the Total FGN Debt-to-Revenue and Total FGN Debt Service-to-Revenue. The relatively higher ratios of Total FGN Debt-to-Revenue and Total FGN Debt Service-to-Revenue up to 338.9 and 37.1 percent in 2022, respectively, from 328.6 and 30.6 in 2019, before trending downwards to 90.8 and 10.6 percent in 2039, reflects the revenue challenge the country is facing, which is being addressed by the Government through its revenue generation reforms and initiatives.

Table 6.2: Total FGN's Debt Sustainability in Percent (2019-2039)

Details	Threshold	2019	2020	2021	2022	2023	2024	2029	2039
Total Public Debt Stock									
In percent of GDP	55	16.5	16.9	15.6	14.1	13.2	12.4	8.2	2.8
In Percent of Revenue		328.6	316.9	338.2	312.1	307.4	306.6	225.6	90.8
Total Public Debt Service									
In Percent of Revenue	Nil	30.6	32.3	37.1	36.1	35.6	33.8	28.1	10.6

Source: 2019 DSA

Note: Under the Fiscal Sustainability, the WB/IMF threshold is only applicable to the Total Public Debt to GDP, which is set at 55 percent

6.3 Fiscal Sustainability Analysis (Total Public Debt Sustainability) - The Federation – FGN, States and FCT

6.3.1 **The Total Public Debt remain below its benchmark thoughout the projection period under the Baseline, but susceptible to revenue shocks.** The Fiscal Sustainability of the Federation covers the External debt, Domestic debt and Revenues of the FGN, States and FCT. The ratio of Total Public Debt-to-GDP of the Federation remains below the Benchmark of 55 percent threshold throughout the projected period under the Baseline (Table 6.3). The Total Public Debt DSA closely mirrored the FGN DSA, but with lower values for revenue related indicators, due to higher denominator generated by the inclusion of the States and FCT's revenue to the Total Public revenue. The ratios of Total Public Debt to Revenue and Total Public Debt Service-to-Revenue trended upwards under the Baseline, with lower GDP growth than the historical average as the Most Extreme Shock. As in the FGN DSA, the ratios of Total Public Debt to Revenue and Total Public Debt Service to Revenue also highlight a revenue challenge, which is being addressed by the Government through the ongoing revenue generating initiatives and reforms.

Table 6.3: Total Public Debt Sustainability in Percent (2019-2039)

Details	Threshold	2019	2020	2021	2022	2023	2024	2029	2039
Total Public Debt Stock									
In percent of GDP	55	19.1	19.6	18.1	16.4	15.2	14.1	8.8	2.8
In Percent of Revenue		211.3	212.3	211.4	199.4	192.4	188.3	140.7	55.6
Total Public Debt Service									
In Percent of Revenue	Nil	25.2	26.1	27.6	26.9	26.7	26.2	23.1	8.1

Source: 2019 DSA

Note: Under the Fiscal Sustainability, the WB/IMF threshold is only applicable to the Total Public Debt to GDP, which is set at 55 percent.

6.4 Risk Rating

6.4.1 **The Risk Rating for the country from the 2019 DSA reveals that Nigeria's External Debt remains at a Moderate Risk of Debt distress, but sensitive to export shock, while Nigeria's Total Debt remains within a sustainable debt profile, but subject to Revenue shocks.** This is because, on the External Debt DSA, the results show that the ratio of External Debt to GDP remians below its indicative threshold under the Baseline scenario, while under the Most Extreme Shock scenario the ratios of External Debt-to-Exports, External Debt Service-to-Exports and External Debt Service-to-Revenue breached their respective thresholds. For the Total Public Debt, the ratio of Public Debt to DGP remains below its Benchmark under the baseline scenario, but the revenue-based debt burden indicators were high under the shock scenario, indicating a revenue challlenge, currently being addressed by the ongoing revenue generating initiatives and reforms.

6.5 The Borrowing Space (Granularity)

6.5.1 Given that the risk of Nigeria's External Debt Distress remains Moderate as in the previous DSA, there is the need to determine the Borrowing Space, otherwise referred to as Granularity, that would be available to the country without undermining debt sustainability.

6.5.2 The Classification of Borrowing Space (Granularity)

6.5.2.1 The Borrowing Space is classified as follows:

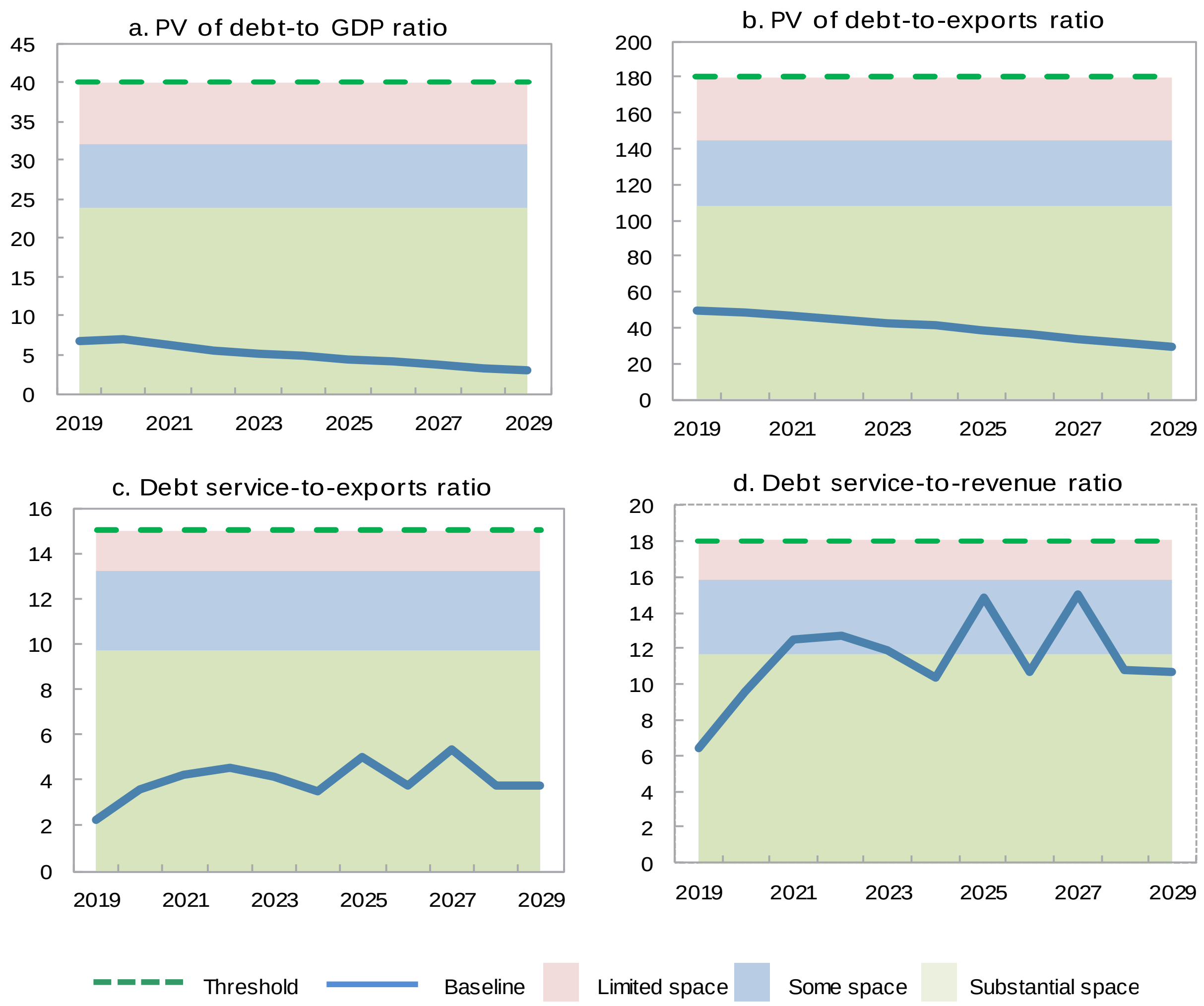
i Limited Space to Absorb Shocks – if at least one Baseline Debt burden indicator is close enough to its threshold that the median shock would downgrade it to high risk;

ii Substantial Space to Absorb Shocks – if all Baseline indicators are well below their thresholds over the projection period; and

iii Some Space to Absorb Shocks – if Baseline indicators do not fall in the two categories above.

6.5.2.1 Figure 6.1 shows that the borrowing space is substantial between 2019 and 2020, as all the Baseline indicators trended below their respective thresholds until 2021 when the ratio of Debt Service-to-Revenue breached its threshold (Figure 6.1d). The ratio of Total External Debt-to-GDP places Nigeria in the Substantial Borrowing Space category, but the high ratio of External Debt Service-to-Revenue, although does not portray debt unsustainability, places Nigeria at ***Some Space to Absorb shocks* category**. This indicates constraints to debt repayment capacity arising from low revenue, which is being addressed by the ongoing initiatives and reforms by the Government aimed at boosting revenue, thereby enhancing the country's Borrowing Space in the medium to long-term.

Figure 6.1: Nigeria's Qualification of the Moderate Category, 2019-2029[1/]



Sources: Country authorities; and staff estimates and projections.
[1/]For the PV debt/GDP and PV debt/exports thresholds, x is 20 percent and y is 40 percent. For debt service/Exports and debt service/revenue thresholds, x is 12 percent and y are 35 percent.

5.6 Market-Financing Shock

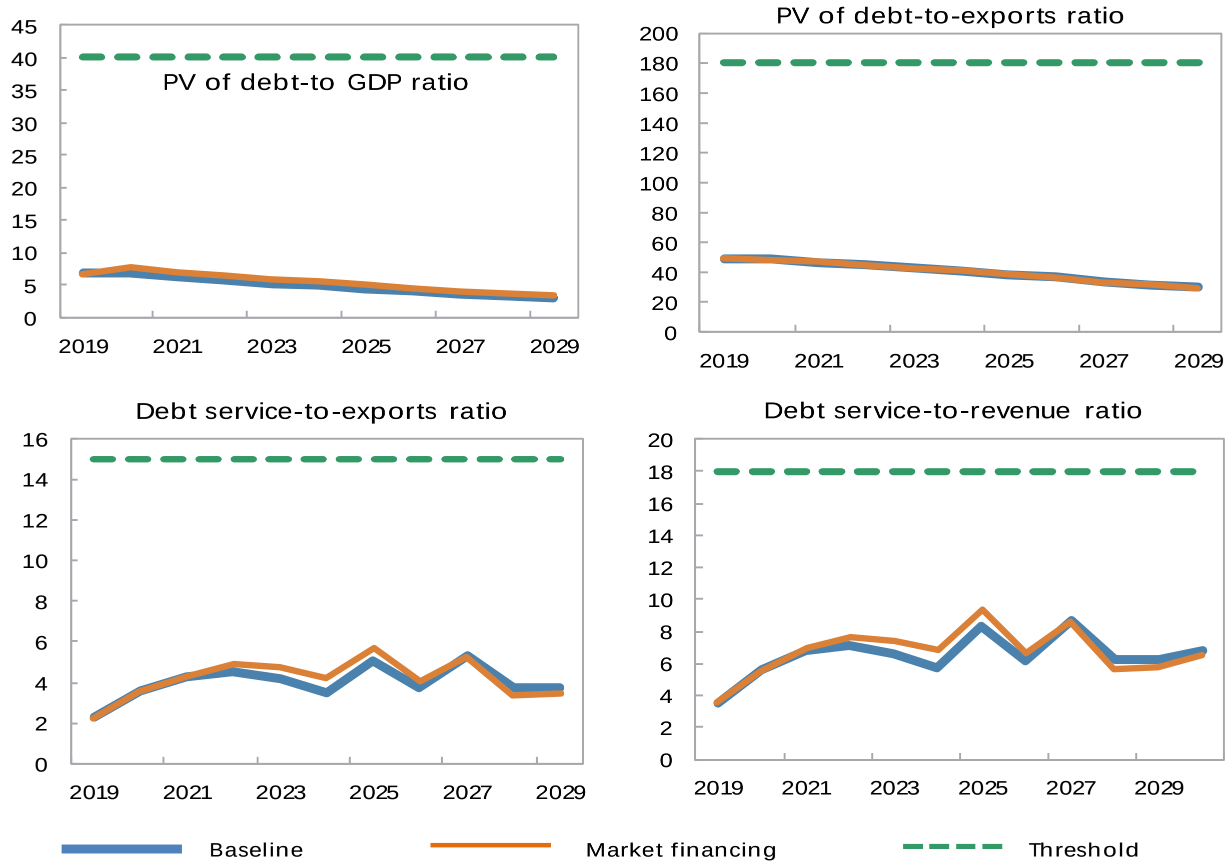
5.6.1 The Market Financing shock is applied, given that the country has regular access to market financing. The Market-Financing shock evaluates the potential market risk the country could face arising from increased liquidity needs or roll-over of its outstanding Eurobonds, at a time of deteriorating market sentiments. This is measured by the latest Emerging Market Bond Index (EMBI) spread and their respective Benchmarks. Figure 6.2 shows that the EMBI spreads of 362 bps is below the benchmark of 570 bps, indicating the absence of rollover risks, arising from deterioration in market sentiments. All the indicators trended below their respective threshold as shown in Figure 6.2 The Nigeria's Eurobonds have performed well in terms of yields, since 2012 compared to Eurobonds issued by some Sub-Saharan African countries.

Figure 6.2: Market Financing Pressures Benchmarks Market Financing Pressures Benchmarks

	GFN [1/]	EMBI [2/]
Benchmarks	14	570
Values	4	362
Breach of benchmark	No	No
Potential heightened liquidity needs	Low	

[1/] Maximum gross financing needs (GFN) over 3-year baseline projection horizon.

[2/] EMBI spreads correspond to the latest available data.



CHAPTER SEVEN

FINAL RISK RATING, CONCLUSION AND RECOMMENDATIONS

7.1 Final Risk Rating

7.1.1 **The Final Risk Rating for the country from the outcome of the 2019 DSA revealed that Nigeria's External Debt remains at a Moderate Risk of Debt distress with some Space to accommodate shocks, while Nigeria's Total Public Debt remains sustainable, but subject to Revenue shocks.** The mechanical risk rating was applied to drive the Final Risk Rating, as the Application od Judegement was not necessary.

7.1.2 On the External Debt Sustainability Analysis, the results shows that the ratio of External Debt to GDP remains below its indicative threshold under the Baseline scenario, however, the ratios of Debt-to-Exports, Debt Service-to-Exports and Debt Service-to-Revenue breached their respective thresholds with Exports as the Most Extreme shock , under the shock scenario. For the Total Public Debt Sustainability Analysis, the ratio of Public Debt to GDP remains below its benchmark under the Baseline scenario, but the revenue-related debt indicators were high under the shock scenario, indicating a revenue challlenge. However, the ongoing efforts by the Government towards improving revenue generation and diversifying the economy to enhance exports, through various initiatives and reforms in the Oil and Gas, Agriculture and Solid Minerals sectors, Tax Administration and Collections, as well as the Strategic Revenue Growth Initiative with the recent signing into law the Finance Act by Mr. President, which takes effect from February 1, 2020 would improve the outlook for Total Public Debt with enhanced revenue performance. Thus, the Export and Revenue-related indicators and Borrowing Space are expected to improve in the medium to long-term.

7.1.3 The downside risks to Risk Rating include the limited debt data coverage, oil price volatility and oil production shocks, macroeconomic uncertainties, sustaining efforts on implementing the goals of ERGP, tight global financial conditions and global economy, which could negativelty affect exports and revenue.

7.1.4 With Moderate Risk of External Debt Distress Rating, the country's Borrowing Space, otherwise referred to as Granularity, is assessed. The findings show that there is Some Space to Borrow based on the country's current revenue profile. The ratio of External Debt Service-to-Revenue trends towards and breached the threshold by 2025. With the concerted efforts to improve revenue through various initiatives and reforms in the various sectors of the economy, which are highlighted above, the country's Borrowing Space is expected to be enhanced considerably.

7.2 Conclusion

7.2.1 The Final Risk Rating for the country from the outcome of the 2019 DSA revealed that Nigeria's External Debt remains at a Moderate Risk of Debt distress with some Space to accommodate shocks, while Nigeria's Total Public Debt remains sustainable, but subject to Revenue shocks. The ongoing efforts by the government towards improving revenue generation and diversifying the economy to enhance exports, through various initiatives and reforms in the Oil and Gas, Agriculture and Solid Minerals sectors, Tax Administration and Collections, as well as the Strategic Revenue Growth Initiative with the recent signing into law the Finance Act by Mr. President, which increases the Value Added Tax (VAT) from 5 percent to 7.5 percent, effective February 1, 2020 would improve the outlook for Total Public Debt with enhanced revenue performance. Thus, the Export and Revenue-related indicators and Borrowing Space are expected to improve in the medium to long-term.

7.3 Recommendations

The key policy recommendations of the 2019 DSA exercise include:

7.3.1 Borrowing Limit for 2019

The Borrowing Limit for 2020 is determined based on the 25 percent Country-Specific Debt Limit (up to 2020) for the Total Public Debt-to-GDP ratio. Given that the DSA projected Total Public Debt-to-GDP ratio is 19.1 percent by end-December 2019, the fiscal space available for borrowing is estimated at 5.9 percent. However, based on the projected 2020 GDP of US$468 billion, the Borrowing for the fiscal year will be US$27.61 billion or 5.90 percent of US$468 billion. Therefore, the maximum amount that may be borrowed in the fiscal year 2020 without breaching the Country-Specific Debt Limit is US$27.61 billion. In line with the country's Debt Management Strategy, the proposed New Borrowing could be raised in equal proportion of 50:50 from both Domestic and External sources as follows:

- New Domestic Borrowing US$13.806 billion (equivalent of about ₦4.211 trillion); and,
- New External Borrowing: US$13.806 billion (equivalent of about ₦4.211trillion).

7.3.2 Boosting Government Revenues

The Government should focus on sustaining the ongoing initiatives and reforms aimed at boosting revenue generation. These include: Strategic Revenue Growth Initiative with the recent signing into law the Finance Bill by Mr President, which would increase the Value Added Tax (VAT) from 5 percent to 7.5 percent, effective February 1, 2020; Deep Offshore and Inland Basin Production Sharing Contract; as well as Solid Mineral sector reforms. In addition, there is the need to also sustain the implementation of the Treasury Single Account (TSA), Government Integrated Financial Management Information System (GIFMIS) and Integrated Payroll and Personnel Information System (IPPIS) aimed at strengthening Public Financial Management, as well as enhance the efficiency and quality of spending. All these initiatives and reforms are necessary for enhancing the country's resilience to revenue shocks.

7.3.3 Leveraging on Private Sector Financing to support Infrastructural Development.

Given the huge funding requirements for development of critical infrastructure and other capital projects vis-a-vis the current low revenue performance, there is need for the Government to explore the use of Off-Balance Sheet arrangements to fund such capital-intensive projects. Some of the arrangements include: Public Private Partnerships (PPPs) – particularly Concessioning Schemes to attract Private Sector participating in the delivery of viable infrastructural projects, which may require the issuance of Sovereign Guarantees for selected priority and high-impact projects.

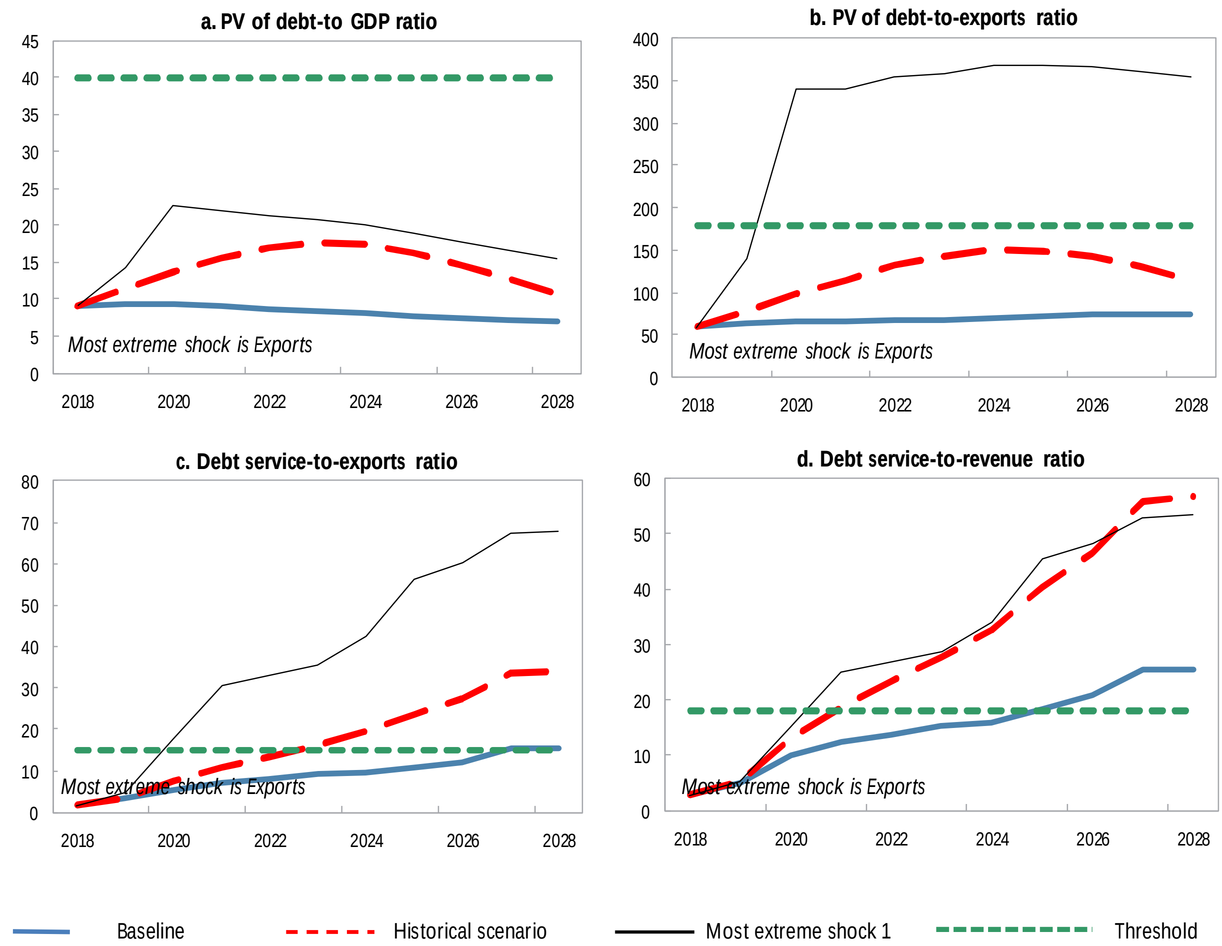
7.3.4 Close Monitoring of Contingent Liabilities

The Contingent Liabilities may present fiscal risk in the medium to long-term, if it continues rising without effective monitoring. The crystalization of contingent liabilities with unexpected increase in debt may lead Total Public Debt to an unsustainability path. Therefore, there is need to intensify the ongoing efforts towards developing a framework for identifying, estimating, disclosing, managing and containing contingent liabilities, especially those arising from State-owned Enterprises (SOEs).

7.3.5 Effective Implementation of the SF-TAS programme

To sustain effective implementation of the SF-TAS programme aimed at strengthening public financial management at the sub-national level, so that the 36 States and the FCT are able to achieve fiscal transparency and accountability, domestic revenue mobilisation, efficiency in public expenditure, and debt sustainability. This would help in the sustainability of the overall Public Debt in the medium to long-term.

Annexure 1: Nigeria's External Debt Sustainability Indicators Under Alternative Scenarios, 2019-2029



Customization of Default Settings		
	Size	**Interactions**
Tailored Tests		
Combined CLs	Yes	
Natural Disasters	n.a.	n.a.
Commodity Prices [2/]	n.a.	n.a.
Market Financing	n.a.	n.a.

Note: "Yes" indicates any change to the size or interactions of the default settings for the stress tests. "n.a." indicates that the stress test does not apply.

Borrowing Assumptions for Stress Tests*		
	Default	**User defined**
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	8.2%	8.2%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	14	14
Avg. grace period	4	4

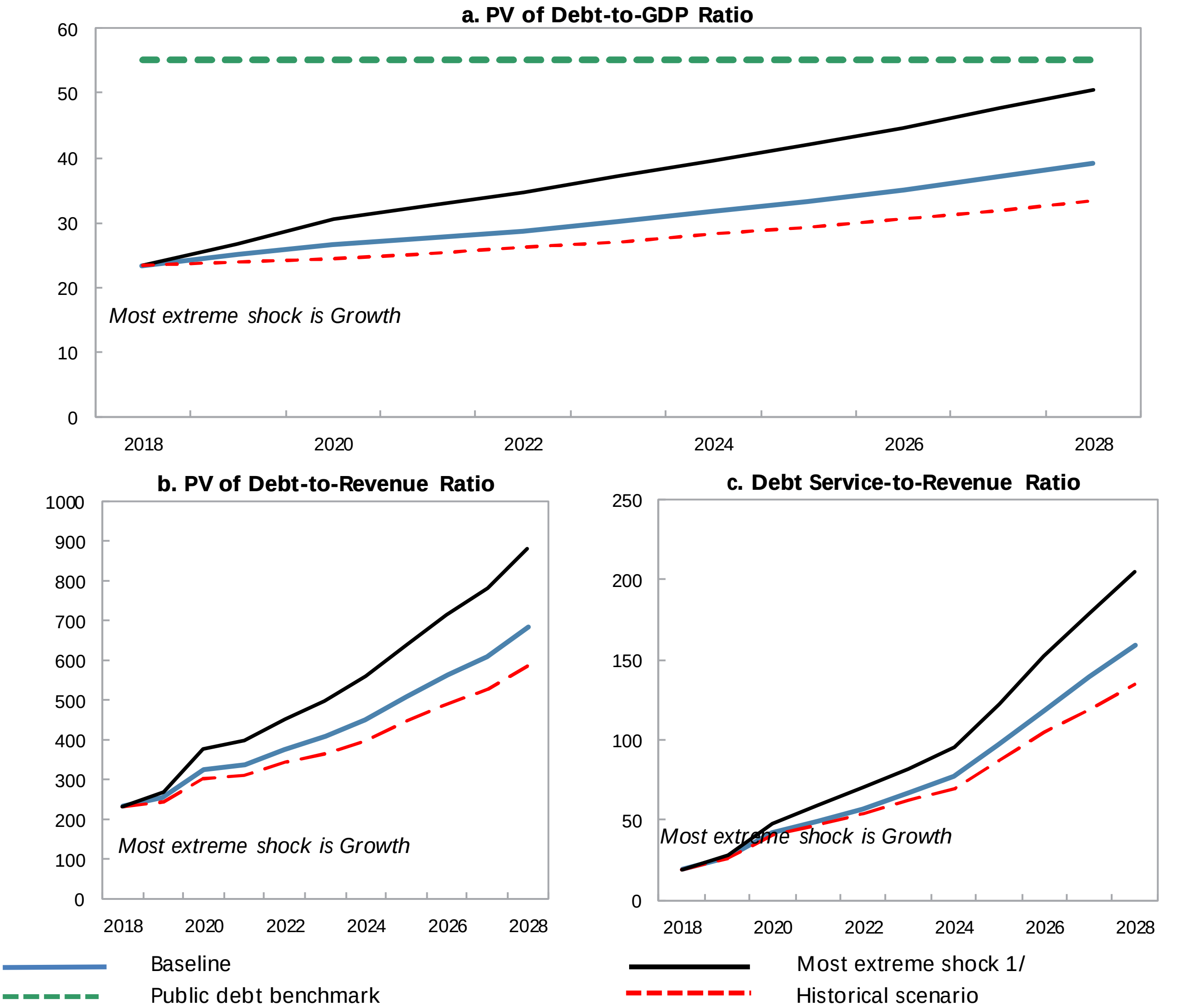
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

[1/] The most extreme stress test is the test that yields the highest ratio in or before 2028. Stress tests with one-off breaches are also presented (if any), while these one-off breaches are deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most extreme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

[2/] The magnitude of shocks used for the commodity price shock stress test are based on the commodity prices outlook prepared by the IMF research department.

Annexure 2: FGN's Public Debt Sustainability Under Alternative Scenarios, 2018-2028



Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	19%	19%
Domestic medium and long-term	58%	58%
Domestic short-term	19%	23%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	8.2%	8.2%
Avg. maturity (incl. grace period)	14	14
Avg. grace period	4	4
Domestic MLT debt		
Avg. real interest rate on new borrowing	9.8%	9.8%
Avg. maturity (incl. grace period)	6	6
Avg. grace period	5	5
Domestic short-term debt		
Avg. real interest rate	8%	8.0%

* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2028. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most extreme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

Annexure 3: Nigeria's External Debt Sustainability Framework, Baseline Scenario, 2015-2038

(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 8/	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2028	2038	Historical	Projections
External debt (nominal) 1/	2.2	4.1	5.1	6.4	6.9	7.5	7.5	7.5	7.5	6.6	5.4	**2.2**	**7.1**
of which: public and publicly guaranteed (PPG)	2.2	4.1	5.1	6.4	6.9	7.5	7.5	7.5	7.5	6.6	5.4	**2.2**	**7.2**
Change in external debt	0.3	1.9	1.0	1.3	0.5	0.5	0.1	0.0	-0.1	-0.2	-0.5		
Identified net debt-creating flows	2.8	-1.2	-4.2	-4.4	-5.7	-5.6	-5.3	-4.8	-4.3	-2.2	-0.9	**-4.3**	**-4.1**
Non-interest current account deficit	3.2	-0.9	-2.9	-3.9	-4.8	-4.5	-4.3	-4.0	-3.5	-1.7	-1.0	**-2.9**	**-3.4**
Deficit in balance of goods and services	4.8	2.6	0.0	-1.6	-2.3	-1.8	-1.6	-1.7	-1.3	-0.2	0.2	**-2.8**	**-1.2**
Exports	10.2	11.5	13.7	15.3	14.4	14.1	13.5	12.6	12.2	9.2	5.2		
Imports	15.0	14.1	13.7	13.7	12.1	12.3	11.9	10.9	10.9	9.0	5.5		
Net current transfers (negative = inflow)	-4.2	-6.0	-5.9	-5.5	-4.7	-4.5	-4.3	-4.1	-3.9	-3.0	-1.7	**-5.4**	**-4.1**
of which: official	-0.3	-0.4	-0.2	-0.5	-0.5	-0.5	-0.5	-0.4	-0.4	-0.2	-0.1		
Other current account flows (negative = net inflow)	2.6	2.5	3.0	3.2	2.2	1.8	1.7	1.7	1.7	1.5	0.5	**5.3**	**1.9**
Net FDI (negative = inflow)	-0.6	-1.3	-0.9	-0.6	-1.0	-1.4	-1.3	-1.0	-1.0	-0.6	-0.3	**-1.5**	**-0.9**
Endogenous debt dynamics 2/	0.2	1.0	-0.3	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.4		
Contribution from nominal interest rate	0.0	0.1	0.1	0.2	0.3	0.5	0.5	0.5	0.5	0.6	0.7		
Contribution from real GDP growth	-0.1	0.1	0.0	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4		
Contribution from price and exchange rate changes	0.2	0.9	-0.4	...	...	...	...	...	...	...	...		
Residual 3/	-2.5	3.1	5.1	5.8	6.2	6.1	5.4	4.8	4.3	2.0	0.4	**4.7**	**4.3**
of which: exceptional financing	-1.2	-0.4	3.3	-0.3	-0.2	0.4	0.2	0.1	0.4	0.2	0.1		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	**...**	**...**	**8.1**	**9.0**	**9.3**	**9.3**	**9.0**	**8.7**	**8.4**	**6.9**	**5.3**		
PV of PPG external debt-to-exports ratio	**...**	**...**	**59.5**	**59.1**	**64.5**	**65.9**	**66.3**	**68.5**	**68.5**	**74.7**	**101.7**		
PPG debt service-to-exports ratio	**0.7**	**0.9**	**0.9**	**1.7**	**3.3**	**5.6**	**7.2**	**7.9**	**9.0**	**15.2**	**37.7**		
PPG debt service-to-revenue ratio	**1.1**	**1.4**	**2.5**	**2.8**	**4.9**	**10.0**	**12.4**	**13.6**	**15.2**	**25.5**	**61.9**		
Gross external financing need (Billion of U.S. dollars)	12.5	-7.1	-13.8	-17.6	-24.1	-25.4	-25.6	-25.0	-22.7	-6.9	34.0		
Key macroeconomic assumptions													
Real GDP growth (in percent)	2.8	-1.6	0.8	2.7	3.0	3.6	3.9	4.5	4.9	6.5	7.0	**4.7**	**3.8**
GDP deflator in US dollar terms (change in percent)	-11.2	-29.3	10.8	8.1	7.4	8.9	8.3	6.6	4.0	1.9	0.0	**-1.7**	**7.2**
Effective interest rate (percent) 4/	2.2	2.2	2.5	4.5	5.8	7.8	7.4	7.4	7.5	8.9	13.5	**2.6**	**6.8**
Growth of exports of G&S (US dollar terms, in percent)	-42.0	-21.6	32.3	24.4	4.4	10.1	7.9	4.1	5.5	2.7	2.8	**1.2**	**9.4**
Growth of imports of G&S (US dollar terms, in percent)	-16.8	-34.7	8.4	11.3	-2.1	13.8	9.2	2.2	9.1	2.7	3.6	**11.2**	**7.2**
Grant element of new public sector borrowing (in percent)	...	...	...	15.1	8.9	19.0	16.9	16.0	13.8	6.4	0.5	**...**	**14.9**
Government revenues (excluding grants, in percent of GDP)	6.5	7.8	4.9	9.5	9.6	7.8	7.8	7.4	7.2	5.5	3.2	**10.1**	**8.2**
Aid flows (in Billion of US dollars) 5/	9.7	10.0	11.9	4.0	2.1	4.0	3.6	3.6	3.4	3.4	2.9		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	0.8	0.4	0.5	0.4	0.4	0.4	0.3	0.1	**...**	**0.5**
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	33.1	29.3	31.7	31.3	31.3	31.4	25.1	9.3	**...**	**31.3**
Nominal GDP (Billion of US dollars)	479	333	372	413	457	516	580	646	705	1,070	2,481		
Nominal dollar GDP growth	-8.7	-30.4	11.7	11.0	10.6	12.8	12.5	11.4	9.0	8.5	7.0	**3.1**	**11.2**
Memorandum items:													
PV of external debt 7/	...	...	8.1	9.0	9.3	9.3	9.0	8.7	8.4	6.9	5.3		
In percent of exports	...	...	59.5	59.1	64.5	65.9	66.3	68.5	68.5	74.7	101.7		
Total external debt service-to-exports ratio	0.7	0.9	0.9	1.7	3.3	5.6	7.2	7.9	9.0	15.2	37.7		
PV of PPG external debt (in Billion of US dollars)			30.2	37.4	42.5	47.9	52.0	55.9	59.0	73.7	132.4		
(PVt-PVt-1)/GDPt-1 (in percent)				1.9	1.2	1.2	0.8	0.7	0.5	0.3	-0.2		
Non-interest current account deficit that stabilizes debt ratio	2.9	-2.8	-3.8	-5.3	-5.3	-5.0	-4.3	-4.1	-3.4	-1.6	-0.4		

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - \rho(1+g) + \varepsilon\alpha (1+r)]/(1+g+\rho+g\rho)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, ρ = growth rate of GDP deflator in U.S. dollar terms, Ɛ=nominal appreciation of the local currency, and α= share of local currency-denominated external debt in total external debt.

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

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

6/ 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).

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

8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Annexure 4: Nigeria's Public Sector Debt Sustainability Framework, Baseline Scenario, 2015-2038

(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 6/	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2028	2038	Historical	Projections
Public sector debt 1/	13.4	20.6	19.1	20.7	22.7	24.7	26.1	27.5	29.3	38.7	63.2	**13.0**	**28.6**
of which: external debt	2.2	4.1	5.1	6.4	6.9	7.5	7.5	7.5	7.5	6.6	5.4	**2.2**	**7.2**
Change in public sector debt	-0.1	7.2	-1.5	1.6	2.0	2.0	1.4	1.5	1.8	2.0	3.5		
Identified debt-creating flows	1.7	7.0	0.0	1.6	2.0	2.0	1.5	1.5	1.9	2.1	4.3	**1.3**	**1.8**
Primary deficit	1.8	2.3	3.7	1.9	2.0	2.3	1.7	1.4	1.1	0.5	0.0	**1.3**	**1.4**
Revenue and grants	6.7	7.9	5.1	10.0	9.9	8.1	8.1	7.6	7.4	5.7	3.3	**10.4**	**7.7**
of which: grants	0.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.1		
Primary (noninterest) expenditure	8.5	10.2	8.8	11.9	11.9	10.4	9.8	9.0	8.5	6.2	3.3	**11.7**	**9.1**
Automatic debt dynamics	0.0	4.7	-3.7	-0.1	0.1	-0.3	-0.2	0.1	0.7	1.6	4.3		
Contribution from interest rate/growth differential	-0.2	3.0	-2.7	0.2	0.4	0.1	0.2	0.3	0.9	1.6	4.2		
of which: contribution from average real interest rate	0.2	2.8	-2.6	0.7	1.0	0.9	1.1	1.5	2.1	3.8	8.1		
of which: contribution from real GDP growth	-0.4	0.2	-0.2	-0.5	-0.6	-0.8	-0.9	-1.1	-1.3	-2.2	-3.9		
Contribution from real exchange rate depreciation	0.1	1.7	-1.0	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	0.0	0.0	0.0	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	**-0.1**	**0.0**
Privatization receipts (negative)	0.0	0.0	0.0	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0		
Recognition of contingent liabilities (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		
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 debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	-1.9	0.2	-1.4	-0.3	-0.3	-0.4	-0.4	-0.3	-0.2	-0.1	-0.7	**-0.1**	**-0.3**
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	...	...	22.1	23.3	25.1	26.5	27.5	28.7	30.2	39.1	63.1		
PV of public debt-to-revenue and grants ratio	...	...	435.1	233.8	253.4	326.9	340.0	377.7	407.1	684.0	1910.7		
Debt service-to-revenue and grants ratio 3/	44.1	37.0	52.5	19.1	26.9	41.8	49.0	57.1	66.9	159.4	532.9		
Gross financing need 4/	3.4	3.5	6.3	3.6	4.6	5.7	5.7	5.8	6.1	9.6	17.6		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	2.8	-1.6	0.8	2.7	3.0	3.6	3.9	4.5	4.9	6.5	7.0	**4.7**	**4.4**
Average nominal interest rate on external debt (in percent)	2.3	2.2	3.0	4.5	5.8	7.8	7.4	7.4	7.5	8.9	13.5	**2.7**	**7.3**
Average real interest rate on domestic debt (in percent)	0.5	1.1	1.6	2.6	3.9	5.6	5.3	5.4	5.4	6.7	11.2	**1.0**	**5.2**
Real exchange rate depreciation (in percent, + indicates depreciation)	7.1	72.0	-24.0	...	...	...	...	...	...	...	...	**7.5**	**...**
Inflation rate (GDP deflator, in percent)	10.1	-8.9	33.8	7.9	7.4	8.9	8.3	6.6	4.0	1.9	0.0	**7.2**	**5.5**
Growth of real primary spending (deflated by GDP deflator, in percent)	-10.8	18.9	-13.6	39.0	3.4	-9.1	-2.7	-3.7	-0.8	-1.5	1.7	**2.9**	**2.4**
Primary deficit that stabilizes the debt-to-GDP ratio 5/	1.9	-4.9	5.2	0.3	0.0	0.4	0.3	0.0	-0.7	-1.5	-3.5	**0.7**	**-0.4**
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central, state, and local governments, government-guaranteed debt. Definition of external debt is Residency-based.

2/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.

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

4/ 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 and other debt creating/reducing flows.

5/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio ((-): a primary surplus), which would stabilize the debt ratio only in the year in question.

6/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Annexure 5: Nigeria's Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2018-2028 (In percent)

	Projections										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
PV of debt-to GDP ratio											
Baseline	**9.0**	**9.3**	**9.3**	**9.0**	**8.7**	**8.4**	**8.1**	**7.8**	**7.5**	**7.1**	**6.9**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 85-1569 1/	9.0	11.4	13.7	15.5	16.8	17.5	17.3	16.1	14.6	12.7	10.6
B. Bound Tests											
B1. Real GDP growth	9.0	9.8	10.3	9.9	9.6	9.3	9.0	8.6	8.3	7.9	7.6
B2. Primary balance	9.0	9.8	10.3	10.1	9.9	9.6	9.4	9.2	9.2	8.9	8.7
B3. Exports	9.0	14.3	22.7	21.8	21.1	20.7	20.1	18.8	17.7	16.6	15.5
B4. Other flows 2/	9.0	10.8	12.3	11.9	11.5	11.2	10.8	10.2	9.8	9.2	8.8
B6. One-time 30 percent nominal depreciation	9.0	11.5	9.9	9.6	9.2	8.9	8.5	8.3	8.0	7.7	7.5
B6. Combination of B1-B5	9.0	13.8	14.6	14.1	13.6	13.3	12.7	12.1	11.5	10.8	10.3
C. Tailored Tests											
C1. Combined contingent liabilities	9.0	11.0	11.4	11.2	10.9	10.7	10.5	10.8	10.9	10.7	10.6
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**
PV of debt-to-exports ratio											
Baseline	**59.1**	**64.5**	**65.9**	**66.3**	**68.5**	**68.5**	**70.2**	**71.9**	**73.3**	**73.4**	**74.7**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 85-1569 1/	59.1	78.9	97.5	115.0	133.4	143.3	150.2	149.5	142.9	130.0	115.0
B. Bound Tests											
B1. Real GDP growth	59.1	64.5	65.9	66.3	68.5	68.5	70.2	71.9	73.3	73.4	74.7
B2. Primary balance	59.1	67.6	73.2	74.9	78.3	78.9	81.5	85.3	89.5	91.3	94.0
B3. Exports	59.1	139.4	339.4	340.7	353.4	358.4	367.7	368.0	365.6	359.3	354.7
B4. Other flows 2/	59.1	75.1	87.3	87.7	90.9	91.4	93.5	94.8	95.6	94.9	95.3
B6. One-time 30 percent nominal depreciation	59.1	64.3	56.6	56.9	58.8	58.5	59.7	61.6	63.2	63.6	65.2
B6. Combination of B1-B5	59.1	107.6	94.6	146.1	151.3	152.4	154.7	156.4	157.2	155.7	155.9
C. Tailored Tests											
C1. Combined contingent liabilities	59.1	76.1	80.7	82.7	86.7	87.9	91.5	100.2	106.4	110.2	114.9
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**
Debt service-to-exports ratio											
Baseline	**1.7**	**3.3**	**5.6**	**7.2**	**7.9**	**9.0**	**9.4**	**10.8**	**12.3**	**15.3**	**15.2**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 85-1569 1/	1.7	3.5	7.3	10.9	13.5	16.4	19.4	23.6	27.4	33.6	33.9
B. Bound Tests											
B1. Real GDP growth	1.7	3.3	5.6	7.2	7.9	9.0	9.4	10.8	12.3	15.3	15.2
B2. Primary balance	1.7	3.3	5.8	7.7	8.6	9.7	10.5	12.3	14.1	17.5	17.6
B3. Exports	1.7	4.7	17.6	30.6	32.8	35.6	42.7	56.3	60.1	67.4	67.6
B4. Other flows 2/	1.7	3.3	6.3	8.8	9.6	10.7	12.1	14.4	15.9	19.0	19.0
B6. One-time 30 percent nominal depreciation	1.7	3.3	5.5	6.5	7.2	8.2	8.6	9.2	10.7	13.7	13.6
B6. Combination of B1-B5	1.7	3.9	11.4	14.4	15.6	17.4	21.1	23.8	26.2	31.0	31.0
C. Tailored Tests											
C1. Combined contingent liabilities	1.7	3.3	6.4	8.3	9.2	10.4	11.0	12.5	14.5	18.0	18.2
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**
Debt service-to-revenue ratio											
Baseline	**2.8**	**4.9**	**10.0**	**12.4**	**13.6**	**15.2**	**15.9**	**18.4**	**20.8**	**25.4**	**25.5**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 85-1569 1/	2.8	5.3	13.2	18.8	23.2	27.8	32.7	40.2	46.5	55.8	56.8
B. Bound Tests											
B1. Real GDP growth	2.8	5.2	11.0	13.7	15.0	16.9	17.6	20.3	23.0	28.2	28.2
B2. Primary balance	2.8	4.9	10.4	13.3	14.7	16.5	17.7	20.9	23.9	28.9	29.4
B3. Exports	2.8	5.1	15.0	25.0	26.7	28.7	34.1	45.5	48.3	53.0	53.6
B4. Other flows 2/	2.8	4.9	11.4	15.2	16.5	18.2	20.3	24.5	27.0	31.5	31.7
B6. One-time 30 percent nominal depreciation	2.8	6.1	12.4	13.8	15.3	17.3	18.1	19.5	22.5	28.3	28.3
B6. Combination of B1-B5	2.8	5.3	14.6	17.7	19.2	21.1	25.4	29.0	31.8	36.8	37.0
C. Tailored Tests											
C1. Combined contingent liabilities	2.8	4.9	11.5	14.3	15.8	17.6	18.5	21.3	24.7	29.8	30.4
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

2/ Includes official and private transfers and FDI.

Annexure 6: Nigeria's Sensitivity Analysis for Key Indicators of Public Debt 2018-2028 (In percent)

	Projections										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
PV of Debt-to-GDP Ratio											
Baseline	**23.3**	**25.1**	**26.5**	**27.5**	**28.7**	**30.2**	**31.8**	**33.3**	**35.1**	**37.1**	**39.1**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 85-1569 1/	23	24	25	25	26	27	28	29	31	32	33
B. Bound Tests											
B1. Real GDP growth	23	27	31	33	35	37	40	42	45	48	50
B2. Primary balance	23	27	31	32	34	35	37	39	41	43	45
B3. Exports	23	30	39	39	40	41	43	43	44	46	47
B4. Other flows 2/	23	27	30	30	31	33	34	36	37	39	41
B6. One-time 30 percent nominal depreciation	23	26	26	26	27	27	28	29	30	32	33
B6. Combination of B1-B5	23	26	27	27	28	30	31	33	34	36	38
C. Tailored Tests											
C1. Combined contingent liabilities	23	34	36	37	38	40	42	44	46	48	50
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Public debt benchmark	**55**	**55**	**55**	**55**	**55**	**55**	**55**	**55**	**55**	**55**	**55**
PV of Debt-to-Revenue Ratio											
Baseline	**233.8**	**253.4**	**326.9**	**340.0**	**377.7**	**407.1**	**450.3**	**508.1**	**562.5**	**610.6**	**684.0**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 85-1569 1/	234	243	303	312	344	365	400	450	492	528	587
B. Bound Tests											
B1. Real GDP growth	234	271	377	401	454	498	559	639	714	781	881
B2. Primary balance	234	278	387	401	444	477	525	591	650	702	782
B3. Exports	234	299	476	484	527	558	604	661	711	751	820
B4. Other flows 2/	234	269	364	376	415	445	488	546	599	645	717
B6. One-time 30 percent nominal depreciation	234	262	324	325	351	370	401	446	488	525	584
B6. Combination of B1-B5	234	260	339	339	374	402	444	500	552	596	667
C. Tailored Tests											
C1. Combined contingent liabilities	234	344	441	456	504	539	593	666	731	786	874
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Debt Service-to-Revenue Ratio											
Baseline	**19.1**	**26.9**	**41.8**	**49.0**	**57.1**	**66.9**	**77.1**	**96.8**	**118.8**	**139.8**	**159.4**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 85-1569 1/	19	27	41	47	54	62	70	87	104	120	134
B. Bound Tests											
B1. Real GDP growth	19	28	48	59	70	82	96	123	152	179	205
B2. Primary balance	19	27	52	66	70	78	89	122	153	166	183
B3. Exports	19	27	46	60	68	78	93	121	143	164	184
B4. Other flows 2/	19	27	43	52	60	70	81	103	125	146	165
B6. One-time 30 percent nominal depreciation	19	26	42	48	55	64	73	91	111	132	149
B6. Combination of B1-B5	19	26	41	50	57	67	77	97	121	139	158
C. Tailored Tests											
C1. Combined contingent liabilities	19	27	81	73	79	87	98	163	168	179	197
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.

2/ Includes official and private transfers and FDI.

THE DSA TECHNICAL TEAM

Executive

1.	Patience Oniha	- Director-General, DMO

Technical Working Team

2.	Miji Amidu	- DMO
3.	Joe Ugoala	- DMO
4.	Elizabeth Ekpenyong	- DMO
5.	Maraizu Nwankwo	- DMO
6.	Alfred Ekiye	- DMO
7.	Jummai Sa'id	- DMO
8.	Idowu Akodu	- DMO
9.	Mohammed Adamu Bara	- DMO
10.	Adeoye Felix	- DMO
11.	Nura Adamu	- DMO
12.	Umar Ahmed Bajoga	- OAGF
13.	Philips Obasi	- FMFBNP (Planning)
14.	Daloba Paul	- FMFBNP (IER)
15.	Samuel Omenka	- BOF
16.	Musa Abdullahi	- CBN
17.	Zainab Sani	- CBN
18.	Simon Oga Ode	- NBS