



**DEBT MANAGEMENT OFFICE  
NIGERIA**

**2021**

**REPORT OF THE ANNUAL NATIONAL  
MARKET ACCESS COUNTRY (MAC)  
DEBT SUSTAINABILITY ANALYSIS (DSA)**

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## **GLOSSARY**

BOF	Budget Office of the Federation
CBN	Central Bank of Nigeria
DSA	Debt Sustainability Analysis
DMO	Debt Management Office
FCT	Federal Capital Territory
FDI	Foreign Direct Investment
FGN	Federal Government of Nigeria
FMBNP	Federal Ministry of Finance, Budget and National Planning
FRA	Fiscal Responsibility Act
FSP	Fiscal Strategy Paper
GDP	Gross Domestic Product
I&E	Investors and Exporters
ICM	International Capital Market
IMF	International Monetary Fund
IPPIS	Integrated Payroll and Personnel Information System
MAC	Market Access Countries
MTDS	Medium-Term Debt Management Strategy
MTEF	Medium-Term Expenditure Framework
NDP	National Development Plan
NAFEX	Nigerian Autonomous Foreign Exchange Rate Fixing
NBS	National Bureau of Statistics
NLNG	Nigeria Liquefied Natural Gas
OAGF	Office of Accountant-General of the Federation
PIA	Petroleum Industry Act

## EXECUTIVE SUMMARY

### 1.1 Background

- 1.1.1 Nigeria adopted Market Access Country-Debt Sustainability Analysis (MAC-DSA) Framework to conduct its debt sustainability exercise in 2021, however, the Low-Income Countries Debt Sustainability Framework (LIC-DSF,) was used in 2020, due to larger share of concessional debt, which accounted for 59.92 percent of the country's External Debt stock. The MAC-DSA Framework applies to countries in Advances Economies and Emerging Markets, which have significant access to market financing. The reason for the adoption of the MAC-DSA Framework was based on the reclassification of Nigeria as a Lower-Middle-Income country, which means limited funding access from concessional borrowing, thus, more reliance on market-based financing. In other words, 70.48 percent of FGN's Total Public Debt stock as at December 31, 2020 was market-based debt, which comprised domestic debt with a share of 55.42 percent and External Debt accounting for 15.06 percent. Of the External Debt portion, Eurobond accounted for 33.49 percent in 2020. Furthermore, Nigeria increased its visibility in the International Capital Market (ICM) with the issuance of USD4.0 billion Eurobonds in three tranches of 6.25% USD1.25 Billion (7-year), 7.35% USD1.5 Billion (12-year) and 8.25% USD1.25 Billion (30-year) in 2021. These developments give further justifications for the adoption of MAC-DSA Framework.
- 1.1.2 The 2021 MAC DSA Exercise was conducted by the Debt Management Office (DMO) from November 2-11, 2021 in conjunction with 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). The World Bank provided technical assistance.

### 2.1 Macroeconomic Assumptions

- 2.1.1 The Baseline projections for the Exercises was based on the macroeconomic assumptions outlined in the 2022 Appropriation Act and the Medium-Term Expenditure Framework (MTEF) 2022-2024 and Fiscal Strategy Paper (FSP), as well as Medium-Term National Development Plan, 2021-2025. The real GDP growth is projected at 2.5 percent and 4.2 percent in 2021 and 2022, respectively. On the average, real GDP is expected to grow by 3.14 percent per annum from 2021-2026, which is above the potential (projected) real GDP growth of 2.0 percent per annum during the corresponding period and pre-pandemic growth of 2.27 percent in 2019. In nominal terms, GDP is anticipated to grow by 10.69 percent in 2021, 9.36 percent in 2022 and an average of 9.99 percent from 2021-2026. The headline inflation on a year-on-year basis is

estimated to decline from 15.75 percent in 2020 to 15.0 percent in 2021, 13 percent in 2022 and 11.0 percent in 2023.

2.1.2 Fiscal deficit in the revised 2020 Appropriation Act was ₦4.608 trillion or 3.30 percent of GDP, relative to ₦1.918 trillion or 1.37 percent of GDP in 2019. The fiscal deficit is projected to stand at ₦4.486 trillion or 3.14 percent in 2021, ₦4.805 trillion or 3.27 percent in 2022 and ₦4.539 trillion or 3.00 percent to GDP in 2023. Data from the Budget Office of the Federation shows that New financing will continue to be in line with the country's Debt Management Strategy (2020-2023), which is to borrow more from domestic sources using long-term instruments, while concessional and semi-concessional funding from multilateral and bilateral sources will be prioritized for external borrowing, as well as market financing. The funding strategy is to support the strategic composition target of 70:30 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. The composition of Total Public Debt was 61:39 for Domestic Debt and External Debt in 2020.

### **3.1 Stress Test Scenario**

3.1.1 The Stress Test Scenario comprises the Standard Macro-Fiscal shocks on the Baseline assumptions (see page 7) used to evaluate the impact of the shocks on the Total Public Debt stock in the medium-term. These Standard Macro-Fiscal shocks are Primary Balance, real GDP growth, real Interest Rate, real Exchange Rate and Combined Macro-Fiscal.

3.1.2 Under the real GDP Growth Shock in which the GDP is lowered than the baseline by 1 percentage point on the average in 2021 and 2022, the Total Public Debt-to-GDP ratio increased to 26.1 percent in 2023 compared to 25.5 percent in the Baseline, but declined to 23.9 percent in 2026 compared to 23.6 percent in the Baseline.

3.1.3 The Primary Balance Shock showed a similar trend with an increase of Total Public Debt-to-GDP ratio to 27.0 percent in 2023 compared to 23.6 percent in the Baseline, reflecting the impact of increasing Gross Financing Needs. The Primary Balance is defined as the difference between Government Revenue and Non-interest Expenditure (i.e. Expenditure minus payment on Interest and Principal).

3.1.4 The real Interest Rate Shock with an increase in the interest rate by 200 basis points over the projection period will increase the Debt service-to-Revenue ratio to 29.3 and 32.1 percent in 2022 and 2023, respectively compared to 28.7 and 31.5 percent in the Baseline.

3.1.5 The real Exchange Rate Shock with depreciating the Naira Exchange rate to the US Dollar by 50 percent, the maximum historical movement observed over the past ten years, will increase

the Total Public Debt-to-GDP ratio to 30.9 and 30.5 percent in 2022 and 2023, respectively, compared to 26.1 and 25.8 percent in the Baseline.

3.1.6 The Combined Macro-Fiscal Shock that combines the individual shock (real GDP growth, inflation, real Interest rate, real Exchange rate and Primary Balance) pushed the Total Public Debt-to-GDP ratio to 30.3 percent in 2026 compared to the 23.6 percent in the Baseline.

3.1.7 Under Customized Shock arising from oil price volatility, which could affect the revenue and GDP growth, the Total Public-Debt-to-GDP ratio is further pushed to 35.4 percent above 23.6 percent in the Baseline in 2026.

#### **4.1 Alternative Scenario**

4.1.1 Under the Alternative Scenario by the inclusion of FGN Guarantees in the sum of ₦4.63 trillion as at December 2021 and Ways and Means Advances of the Central Bank of Nigeria in the sum of ₦15.0 trillion, the Total Public Debt-to-GDP ratios were relatively high at 28.0 and 36.5 percent in 2021 and 2022 respectively compared to 25.5 and 26.1 percent in the Baseline. Although these ratios are below the MAC-DSA's benchmark of 70 percent set by the World Bank and IMF for the Emerging Markets throughout the projection period, they are associated with an increase in short-term risks and cost of debt servicing arising from CBN financing. These would be moderated significantly when on-going arrangements to securitise the Ways and Means Advances are concluded.

#### **5.1 Total Public Debt Risk Assessment and Recommendations**

**5.1.1 The Public Debt Sustainability Analysis shows that Nigeria's Total Public Debt is sustainable in the medium-term. The Debt Level and Gross Financing Needs show low risk to debt sustainability as all the debt burden indicators are below the Baseline and Shock scenarios. The Total Public Debt-to-GDP ratio was below the MAC-DSA's benchmark of 70 percent for the Emerging Markets at 25.5, 26.1 and 25.8 percent in 2021, 2022 and 2023, respectively, and thereafter declined to 23.6 percent in 2026. Similarly, the Gross Financing Needs are high but lower than the MAC-DSA's benchmark of 15 percent at 3.8, 3.1 and 2.4 percent in 2021, 2022 and 2023, respectively. The financing needs are met by domestic financing through the issuances of FGN securities in the domestic financing market. External financing would be from the concessional and semi-concessional sources, as well as market financing by the issuance of Eurobonds in line with the Nigeria's Medium-Term Debt Management Strategy, 2020-2023.**



**5.1.2** The Debt Profile, however, shows moderate risk and susceptible to some shocks such as Market Perception, Share of Debt held by Non-Resident and Foreign Currency Denominated Debt, which may undermine debt sustainability in the medium-term. Risk arising from Market Perception measured by Bond Spread at 315 basis points crossed the early warning threshold of 200 basis points, but below the 600 basis points for upper early warning threshold. The issuance of USD4.0 billion Eurobonds in 2021 increased the exposure of the Total Public Debt profile to foreign exchange risk, which is mitigated by the domestic currency denominated debt, which accounted for 61.40 percent of the Total Public Debt as at December 31, 2020. Refinancing risk is minimised by longer maturities of the Eurobonds and the spread of maturities to prevent the bunching of maturities, thus, achieving a smooth redemption profile. Also, the Debt Profile is exposed to risks associated with the volatility of oil prices, as well as enhanced short-term debt vulnerabilities and the cost of debt servicing arising from CBN financing. However, the sustained implementation of economic initiatives and reforms by the Government aimed at stimulating growth and boosting revenue are expected to moderate these shocks and financing pressures in the medium-term. In addition, if the CBN financing through Ways and Means Advances is re-structured into long term debt.

## **6.1 Recommendations**

6.1.1 The key policy recommendations of the 2021 MAC-DSA exercise include:

### **6.1.1 Borrowing Limit for 2022**

The Borrowing Limit for 2022 in this DSA Exercise is determined based on the Country Specific Debt Limit of 40 percent (up to 2023), for Public Debt-to- GDP ratio. Given that the Total Public Debt-to-GDP ratio is projected at 26.12 percent by December 31, 2022, the fiscal space available for borrowing is estimated at 13.88 percent. Therefore, based on the projected 2022 GDP of US\$448.32 billion and Nigeria's country-specific Debt to GDP limit of 40 percent, the Borrowing Limit for the fiscal years 2022 and 2023 will be about US\$62.21 billion or ₦25.586 trillion (at an exchange rate of US\$1/₦11.3). In line with Nigeria's Medium-term Debt Management Strategy, 2020-2023, the proposed New Borrowing could be raised from both Domestic and External sources.

These recommended maximum amounts that could be borrowed, would depend on absorptive capacity of the domestic debt market, and the options available in the external market. In line with the revised Medium-Term Debt Management Strategy, 2020-2023. The

borrowings would be long-term, and would be strategically deployed to fund priority infrastructure projects.

### **6.1.2 Other Recommendations**

- i Strengthening and continued implementation of the Strategic Revenue Growth Initiatives to shore up Government revenues, to reduce financing pressures, and expand the fiscal space;
- ii Sustaining the implementation of the National Development Plan (NDP), 2021-2025 to maintain the recovery in the economy;
- iii Rationalizing expenditure by focusing on priority spending on growth-enhancing sectors of the economy;
- iv Effective implementation of the Petroleum Industry Act (PIA), 2021 which is expected to attract investment in the oil and gas sector;
- v Enhancing growth in non-oil Export through fiscal and trade incentives,
- vi Maintaining relative stability in the foreign exchange market;
- vii Encouraging private sector participation in funding infrastructure projects through Public-Private Partnership arrangements; and,
- viii Improving and sustaining political and macroeconomic stability, as well as addressing security and infrastructural challenges, to attract Foreign Direct Investments (FDIs).

## **CHAPTER ONE**

### **BACKGROUND AND OBJECTIVES**

#### **1.1 Background**

1.1.1 Nigeria adopted Market Access Country-Debt Sustainability Analysis (MAC-DSA) Framework to conduct its debt sustainability exercise in 2021, however, the Low-Income Countries Debt Sustainability Framework (LIC-DSF,) was used in 2020, due to larger share of concessional debt, which accounted for 59.92 percent of the country's External Debt stock. The MAC-DSA Framework applies to countries in Advances Economies and Emerging Markets, which have significant access to market financing. The reason for the adoption of the MAC-DSA Framework was based on the reclassification of Nigeria as a Lower-Middle-Income country, which means limited funding access from concessional borrowing, thus, more focus on market-based financing. In other words, 70.48 percent of FGN's Total Public Debt stock as at December 31, 2020, was market-based debt, which comprised domestic debt with a share of 55.42 percent and External Debt accounting for 15.06 percent. Of the External Debt portion, Eurobond accounted for 33.49 percent in 2020. Furthermore, Nigeria increased its visibility in the International Capital Market (ICM) with the issuance of USD4.0 billion Eurobonds in three tranches of 6.25% USD1.25 Billion (7-year), 7.35% USD1.5 Billion (12-year) and 8.25% USD1.25 Billion (30-year) in 2021. These developments give further justifications for the adoption of MAC-DSA Framework.

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1.1.3 Fiscal deficit in the revised 2020 Appropriation Act was ~~₦~~4.608 trillion or 3.30 percent of GDP, relative to ~~₦~~1.918 trillion or 1.37 percent of GDP in 2019. The fiscal deficit is projected to stand at ~~₦~~4.486 trillion or 3.14 percent to GDP in 2021, ~~₦~~4.805 trillion or 3.27 percent in 2022 and

~~₦~~4.539 trillion or 3.00 percent in 2023. New financing will continue to be in line with the country's Medium-Term Debt Management Strategy, 2020-2023, which is to borrow more from domestic sources using long-term instruments, while concessional and semi-concessional funding from multilateral and bilateral sources will be prioritized for external borrowing, as well as market financing. The funding strategy is to support the strategic composition target of 70:30 ratio for domestic and external debt, as well as the 75:25 ratio for long to short-term debt in the domestic debt portfolio.

1.1.4 The 2021 MAC DSA Exercise was conducted by the DMO from November 2-11, 2021 in conjunction with 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). The World Bank provided technical assistance.

## **1.2 Objectives of 2021 MAC-DSA**

1.2.1 The objective of the 2021 MAC-DSA is to assess the country's capacity to service current and its future debt obligations 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 Nigeria's Medium-Term Expenditure Framework (MTEF), the Fiscal Strategy Paper (FSP), and the FGN Annual Budget, as well as the Medium-Term Debt Management Strategy (MTDS).

1.2.2 The 2021 MAC-DSA Report is divided into seven (7) Chapters, as outlined below:

Chapter 1 - Background and Objectives

Chapter 2 - Methodology, Scope of Debt Coverage and Benchmarks

Chapter 3 - Debt Portfolio Review and Realism of Baseline Forecast

Chapter 4 - Macroeconomic Assumptions

Chapter 5 - Stress Test Scenario, Fan Chart, Heat Map and Alternative Scenario

Chapter 6 – Conclusion and Recommendations

## **CHAPTER TWO**

### **METHODOLOGY, SCOPE OF DEBT COVERAGE AND BENCHMARKS**

#### **2.1 Methodology**

2.1.1 The MAC-DSA Framework was developed by the International Monetary Fund (IMF) and World Bank for countries that have significant access to the international capital market on a durable and sustainable basis. The Framework combines solvency, liquidity and realistic adjustment to assess the sustainability of the Total Public Debt portfolio. It assesses the capacity of the country to service its debt in the short, medium and long-term without renegotiating or defaulting. It also incorporates the Realism Tools, which assess the reality of key macroeconomic and debt projections to ensure that the projected levels and path of debt burden indicators are based on realistic macroeconomic assumptions and projections.

2.1.2 The 2021 MAC-DSA Exercise covers only Total Public Debt Sustainability Analysis comprising External and Domestic Debts of the FGN, States and FCT. The FGN Guarantees and Ways and Means Advances of CBN, which was about ₦15.00 trillion is included in the FGN Domestic Debt under the Alternative Scenario.

2.1.3 The MAC-DSA covers a 10-year historical period (2011-2020), and a 6-year projection (2021-2026), under various Macroeconomic Assumptions and Stress Test Scenarios. The Realism Tools were also applied to assess the credibility of the Baseline forecasts. The outcomes of the exercise were used to assess the country's Total Public Debt sustainability in the Medium-Term.

#### **2.2 Scope of Debt Coverage**

2.2.1 The 2021 MAC-DSA exercise uses the Gross Public Debt, which is Total Public Debt stock comprising External Debt of Federal Government of Nigeria (FGN), thirty-six (36) States and the Federal Capital Territory (FCT), and Domestic Debt of the FGN and the 36 States and the FCT. The FGN borrows and on-lends to the thirty-six (36) States and the FCT, as they are not allowed to borrow externally, based on the provisions of the DMO Act, 2003 and the FRA, 2007. The FGN Guarantees and Ways and Means Advances at the CBN were included under the Alternative Scenario as part of the FGN's Domestic Debt Stock.

#### **2.3 Country Classification and Risk Assessment**

2.3.1 Under MAC-DSA Framework a country is either Advanced Economy or Emerging Market economy based on the World Economic Outlook classification by the IMF. Nigeria is classified

as Emerging Market. Table 2.1 shows the countries' classification based on their public debt burden indicators and benchmarks.

**Table 2.1: Countries Classification Benchmarks**

S/N	Indicators	Advanced Economies	Emerging Markets
<b>Public Debt Burden Benchmarks</b>			
1	Debt-to-GDP (in Percent)	60	50
2	Gross Financing Needs-to-GDP (in Percent)	15	10

Note: Gross Financing Needs are defined as fiscal deficit and other transactions that require financing plus payment on debt (interest and principal)

2.3.2 Based on the assessment of risk to debt sustainability a country may be treated as either Lower Scrutiny or Higher Scrutiny. A Lower Scrutiny status requires a country to conduct a Basic Debt Sustainability Analysis (DSA) by comparing the Baseline assumptions with Alternative scenarios., while a Higher Scrutiny rating requires a country to conduct the Basic DSA with additional risks identification and Analysis (Realism of Baseline scenario, Vulnerability of Debt profile, Sensitivity to Macro-Fiscal risks and Contingent liabilities), and Risk Reporting (Heat Map, Fan Charts and Write-up. Table 2.2 shows the risk indicators for the Emerging Market Debt Profile and their respective benchmarks.

**Table 2.2: Risk Indicators and Benchmarks for Emerging Market Debt Profile**

S/N	Indicators	Risk Measure	Low Risk	Moderate Risk	High Risk
<b>Debt Profile Indicators</b>					
1	Bond Spread (basis points)	Liquidity/Refinancing	Below 200	Between 200 and 600	Above 600
2	External Financing Requirements (% of GDP)	Liquidity/Refinancing	Below 5	Between 5 and 15	Above 15
3	Share of Public Debt in Foreign Currency (in Percent of Total Public Debt)	Exchange rate	Below 20	Between 20 and 60	Above 60
4	Share of Debt held by Non-residents (in Percent of Total Public Debt)	Exchange Rate	Below 15	Between 15 and 45	Above 45
5	Share of Short-term in Total Public Debt (in Percent of Total Public Debt)	Refinancing	Below 0.5	Between 0.5 and 1.0	Above 1.0

## 2.4 Realism of Forecast

2.4.1 The Realism Tools are used to assess the credibility of the Baseline forecast. The Tools and their details are shown in Table 2.3.

**Table 2.3: Realism Tools**

S/N	Tools	Details
i.	Past Forecast Error	Forecast error is the difference between the actual data and projected values for a given period. It compares the country's forecast error with those of other countries. If the forecasts are close to the median (Black Line), the forecast is in line with those of other countries. However, if it is a negative forecast error, it means over-optimism, that is the projection exceeded the realization. Furthermore, a High Percentile Rank indicates persistent pessimism in past projections, while a Low Percentile Rank shows a median forecast error that is relatively large compares to other countries, indicating persistent optimism in the past projections.
ii	Projected Fiscal Adjustment	It assesses the realism of projected fiscal adjustment based on the historical experience of a country and other countries' experiences. This is to guide against over-optimistic projection. The projected Fiscal Adjustment is large, that is the 3-year Cumulative Primary Balance Adjustment is more than 3% of GDP for both the Advanced Economies and Emerging Market Countries.
iii.	Boom-Bust Analysis	The Boom-Bust tool compares growth assumptions for a country to the historical experience of boom-bust cases to serve as a reality check for growth countries. It applies to a country that may be in a boom, and the likelihood of entering a bust that would increase the stock of Contingent Liabilities. It is triggered when output has been greater than potential or projected output for three years

## 2.5 Macro-Fiscal Shocks

2.5.1 The MAC-DSA Framework assesses risks associated with the Baseline Scenario mainly through Standard and Customized Sensitivity Analysis. The Baseline Scenario is the basic projections of macroeconomic variables used as a reference for analysis, in which the outcome assumes that the current economic condition will be continued in the future. Stress Tests are applied to the Baseline Scenario to present the impact of adverse shocks on the debt burden indicators. The shocks and their details are presented in Table 2.4 below.

**Table 2.4: Macro-Fiscal Shocks**

S/N	Shocks	Details
i.	Primary Balance	Primary Balance is defined as the difference between Government revenue and Non-interest Expenditure (Expenditure minus interest and principal payment). It is assumed that an increase in Primary Balance more than the Baseline leads to an increase in the interest rate on new borrowing by 25% basis points for every 1% of GDP increase in Primary Balance due to higher risk premium.
ii	Real GDP Growth	A decline in GDP leads to a decrease in Primary Balance, which gives rise to a higher interest rate, and lower inflation by 25 percentage points for every 1% decline in GDP growth
iii.	Interest Rate	Interest rate is assumed to increase by the following: (a) the difference between the average real interest rate over the projection period and the maximum real interest rate or (b) 200 basis points, whichever is higher.
iv	Exchange Rate	The Exchange Rate shocks consider the Pass-through to inflation, which is assumed as elasticity of 0.25 for Emerging Markets and 0.03 for Advance Economies.
v.	Combined Macro-Fiscal	The Macro-Fiscal Shock combines the real GDP growth, real interest rate, real exchange rate and the primary balance shocks to determine the impact of Macro-Fiscal shock on the Total Public Debt-to-GDP ratio.
vi	Contingent Liabilities	Financial Sector Contingent Liability Stress Test assesses contingent liabilities stemming from the risk of bank crises. It is triggered when the 3-year cumulative increase in the rate of growth of Private-Sector Credit-to-GDP exceeds 15% for Emerging Market or the Loan-to-Deposit ratio is larger than 150% or 1.5. Private Sector Credit refers to the Banking system's Credit to the Private sector.
vii	Customized Shock	The shock assesses the sensitivity of the projected debt indicators to volatility in oil price. The oil price is shocked by about 40 percent throughout the projection period

## 2.6 Fan Chart

2.6.1 Fan Chart is a tool based on the historical data to present a possible growth of Total Public Debt-to-GDP ratio over the medium-term and the probabilistic view of risk around the Baseline. It is Symmetric if it is centred around the Baseline with upside risk equal to downside risks. It is Asymmetric if it is not centred around the Baseline, in which the downside risk is higher than the upside risk, and this presents the best assessment of the likely balance of risks.

## 2.7 Heat Map

2.7.1 The Heat Map summarizes the risks to debt sustainability. The first and second rows assess the debt burden indicators. The third row summarizes the Level of debt risks, which are classified as high (red), moderate (yellow) and low (green) as shown in Table 2.4



**Table 2.5: Heat Map (Risk Level)**

<b>Risk Level</b>	<b>Baseline Above Benchmark</b>	<b>Stress Test Above Benchmark</b>	<b>Details</b>
<b>Low</b>	<b>No</b>	<b>No</b>	Where the debt burden indicator is below the benchmark under both the baseline and the stress test in any year of projection
<b>Moderate</b>	<b>No</b>	<b>Yes</b>	Where the debt burden indicator is below the benchmark in the baseline, but above it in the stress test in any year of projection
<b>High</b>	<b>Yes</b>	<b>Yes</b>	Where the debt burden indicator is above the upper benchmark for that indicator for both the baseline and stress test

## CHAPTER THREE

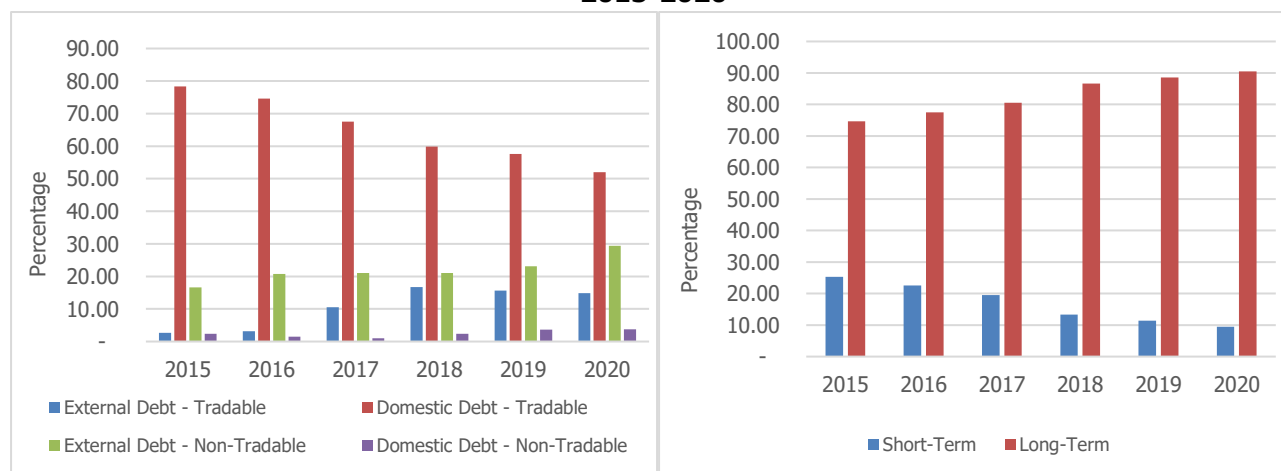
### DEBT PORTFOLIO REVIEW AND REALISM OF BASELINE FORECAST

#### 3.1 Debt Portfolio Review

3.1.1 Nigeria's Total Public Debt-to-GDP ratio increased to 21.61 percent in 2020 from 19.00 percent in 2019, reflecting the contraction in output with the real GDP growth rate of -1.9 percent and a larger fiscal deficit arising from the decline in revenue, due to the adverse effect of the covid-19 pandemic. The Total Public Debt-to-GDP ratio is projected to increase to about 25.5 percent in 2021 and gradually decrease to 23.6 percent in 2026. This increase is expected to be driven by fiscal deficit, real interest rate and decline in the growth of GDP.

3.1.2 Nigeria has continued to raise new domestic borrowing from the highly liquid domestic financial Market. The share of tradeable Domestic Debt in the Total Public debt was 52.04 percent, while tradeable External Debt was 14.81 percent. The share of tradeable External Debt in the External Debt was 33.49 percent in 2020. The Domestic Debt composition for long to short-term stood at 83:17 as at December 31, 2020, against the target of 75:25 in the MTDS, 2020-2023. In the External Debt, short-term debt has remained insignificant over the years.

**Figure 3.1: Composition of Tradable Debt and Domestic Debt Mix for Long to Short-Term Debt, 2015-2020**



#### 3.2 Realism of Baseline Forecast

##### 3.2.1 Forecast Error

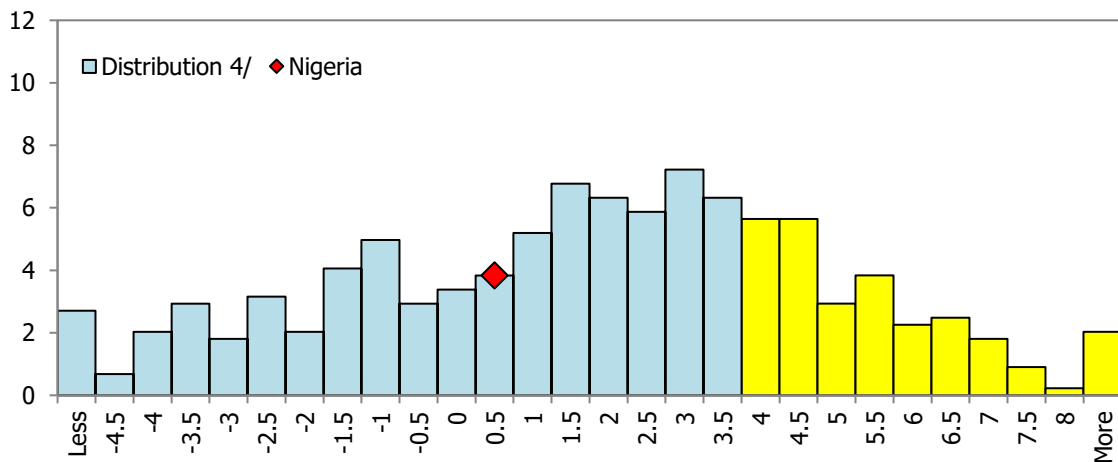
Nigerian Median Forecast Errors are -1.18, 13.46 and -1.57 percent for real GDP growth, Primary Balance and Inflation, respectively, with Percentile Ranks of 21, 14 and 17 percent. These negative forecast errors show some optimism meaning that the projected values are

relatively higher than the actual values. The forecast errors over the years was mainly from the Primary Balance forecast in the past years caused by oil price volatility (Figure 3.4).

### 3.2.2 Primary Balance

The 3-year Average Level of Cyclically-Adjusted Primary Balance is less than the 3.5 percent of the GDP benchmark, indicating that the Primary Balance forecast was reasonable when compared to other countries in Emerging Markets (Figure 3.2).

**Figure: 3.2: 3-Year Average Level of Cyclically-Adjusted Primary Balance (CAPB)**  
(Percent of GDP)



### 3.2.3 Boom-Bust Analysis

The Boom-Bust Analysis does not apply to Nigeria due to the very low Private Sector Credit-to-GDP ratio. Data from the CBN shows that Private Sector Credit, which is the Banking System’s Credit to the private sector as a percentage of GDP was on the average at about 0.78 percent in the past three years, 2018 to 2020, compared to the Benchmark of 15 percent (Figure 3.3).

### Figure 3.3: Nigeria Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario

(in percent of GDP unless otherwise indicated)

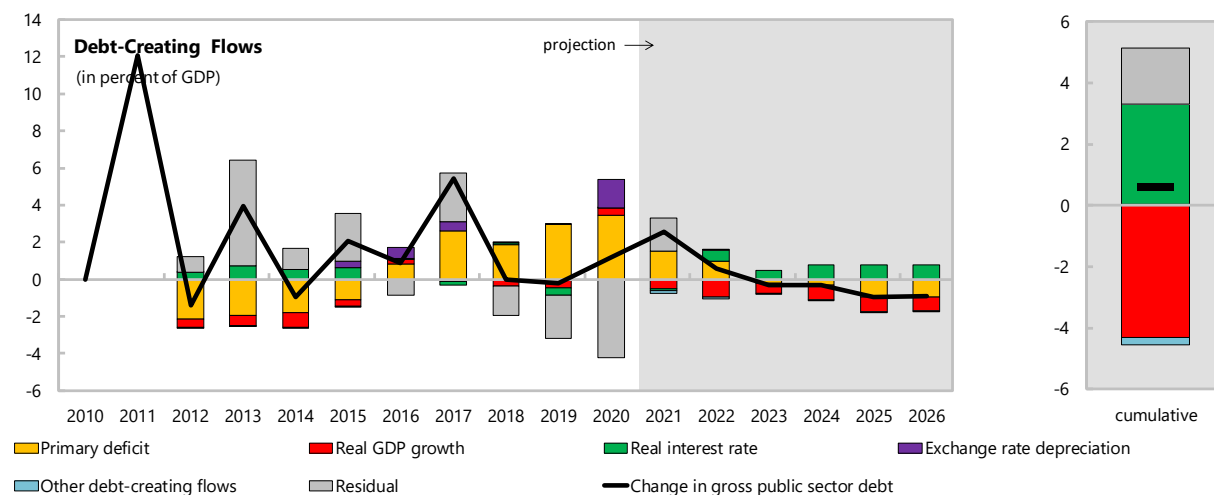
Debt, Economic and Market Indicators <sup>1/</sup>											
	Actual			Projections							
	2010-2018 <sup>2/</sup>	2019	2020	2021	2022	2023	2024	2025	2026		
Nominal gross public debt	14.2	21.8	23.0	25.5	26.1	25.8	25.5	24.5	23.6		
Public gross financing needs	2.7	5.7	5.9	3.8	3.1	2.4	2.6	2.0	1.8		
Public debt (in percent of potential GDP)	16.4	21.8	23.3	24.2	24.2	23.3	22.7	21.5	20.4		
Real GDP growth (in percent)	2.8	2.3	-1.9	2.4	4.2	2.3	3.3	3.3	3.3		
Inflation (GDP deflator, in percent)	8.0	10.4	7.7	8.1	5.0	6.6	6.7	6.7	6.7		
Nominal GDP growth (in percent)	10.9	12.6	11.8	4.5	9.4	9.1	10.3	10.3	10.3		
Effective interest rate (in percent) <sup>4/</sup>	11.0	8.5	7.7	7.7	7.8	8.7	10.2	10.3	10.4		

As of July 19, 2021		
Sovereign Spreads		
Bond Spread (bp) <sup>3/</sup>	306	
5Y CDS (bp)	486	
Ratings	Foreignr	Local
Moody's	B2	B2
S&P's	B-	B-
Fitch	B	B

Contribution to Changes in Public Debt											
	Actual			Projections						cumulative	ebt-stabilizin primary balance <sup>9/</sup>
	2010-2018	2019	2020	2021	2022	2023	2024	2025	2026		
Change in gross public sector debt	2.8	-0.2	1.2	2.5	0.6	-0.3	-0.3	-1.0	-0.9	0.6	
Identified debt-creating flows	0.0	2.1	5.4	0.8	0.5	-0.3	-0.3	-1.0	-0.9	-1.2	
Primary deficit	-0.2	3.0	3.4	1.5	1.0	-0.2	-0.3	-1.0	-0.9	0.1	
Primary (noninterest) revenue and grants	5.3	5.8	4.6	6.6	7.5	8.3	7.8	8.5	8.8	47.4	
Primary (noninterest) expenditure	5.1	8.7	8.0	8.1	8.5	8.1	7.4	7.5	7.9	47.4	
Automatic debt dynamics <sup>5/</sup>	0.2	-0.8	1.9	-0.6	-0.4	-0.1	0.0	0.0	0.0	-1.1	
Interest rate/growth differential <sup>6/</sup>	0.0	-0.9	0.4	-0.6	-0.4	-0.1	0.0	0.0	0.0	-1.1	
Of which: real interest rate	0.3	-0.4	0.0	-0.1	0.6	0.5	0.8	0.8	0.8	3.3	
Of which: real GDP growth	-0.3	-0.4	0.4	-0.5	-1.0	-0.6	-0.8	-0.8	-0.7	-4.3	
Exchange rate depreciation <sup>7/</sup>	0.2	0.0	1.5	...	...	...	...	...	...	...	
Other identified debt-creating flows	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.2	
Please specify (1) (e.g., privatization rece	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.2	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2) (e.g., other debt flows)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes <sup>8/</sup>	1.2	-2.3	-4.2	1.8	0.0	0.0	0.0	0.0	0.0	1.8	



Source: IMF staff.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ EMBIG (bp).

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as  $[r - \pi(1+g) - g + ae(1+r)] / (1+g+\pi+gr)$  times previous period debt ratio, with  $r$  = effective nominal interest rate;  $\pi$  = growth rate of GDP deflator;  $g$  = real GDP growth rate;  $a$  = share of foreign-currency denominated debt; and  $e$  = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as  $r - \pi(1+g)$  and the real growth contribution as  $-g$ .

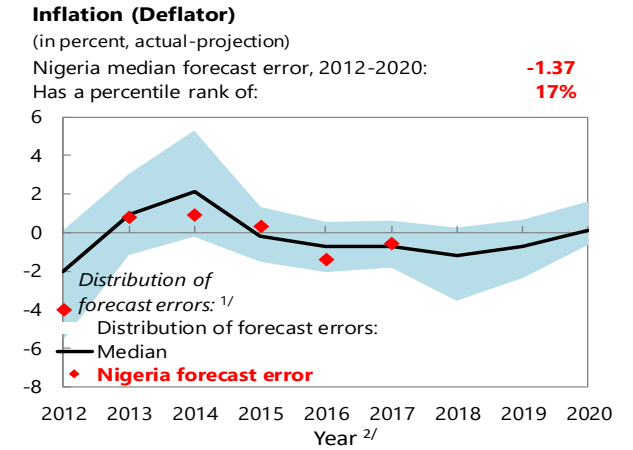
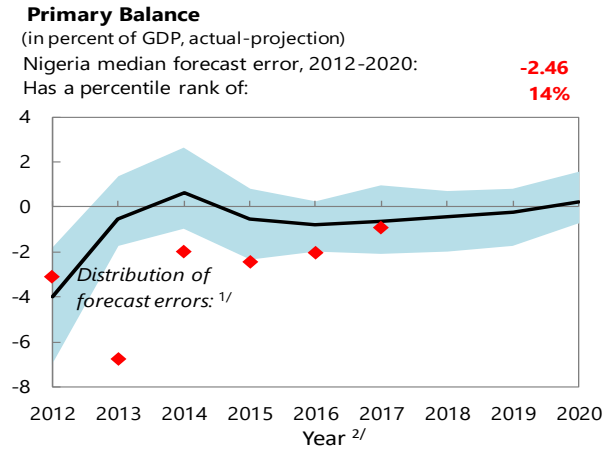
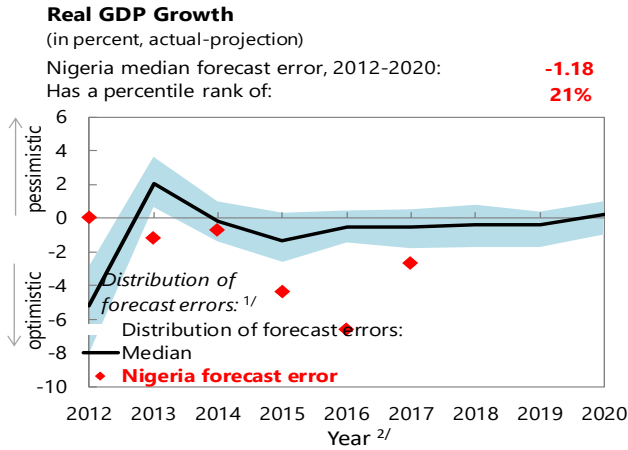
7/ The exchange rate contribution is derived from the numerator in footnote 5 as  $ae(1+r)$ .

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

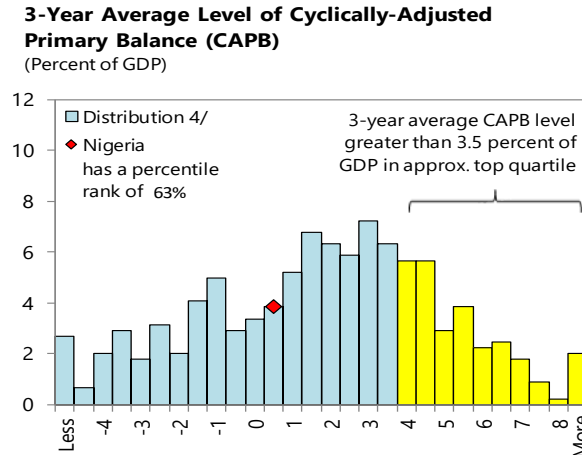
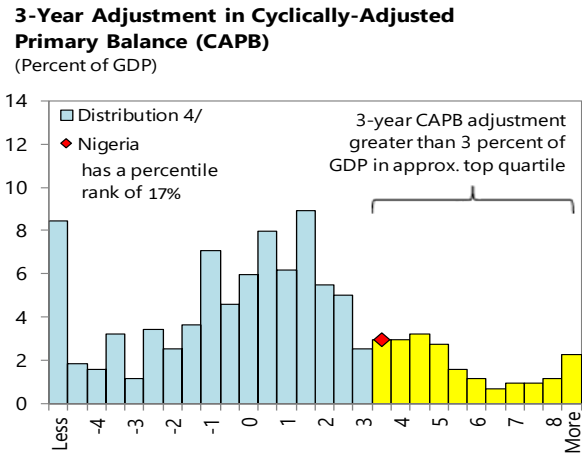
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

**Figure 3.4: Nigeria Public DSA - Realism of Baseline Assumptions**

**Forecast Track Record, versus all countries**



**Assessing the Realism of Projected Fiscal Adjustment**



**Boom-Bust Analysis <sup>3/</sup>**



Source : IMF Staff.

1/ Plotted distribution includes all countries, percentile rank refers to all countries.

2/ Projections made in the spring WEO vintage of the preceding year.

3/ Not applicable for Nigeria, as it meets neither the positive output gap criterion nor the private credit growth criterion.

4/ Data cover annual observations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

## CHAPTER FOUR

### MACROECONOMIC ASSUMPTIONS

4.1 The economic path underlying Baseline projections for the 2021 MAC-DSA is derived from the current policy of the Government, reflecting the most recent Appropriation, 2022-2024 Medium-Term Expenditure Framework and Fiscal Strategy Paper (FSP), as well as economic projections. It assumes that the current laws governing taxes, revenue allocations and spending is generally unchanged. The key objectives are to overcome current security challenges and accelerate post-recession growth, as well as diversify export revenue sources away from crude oil. This reflects the key objectives and priorities of the Medium-Term National Development Plan 2021-2025. The projections are consistent with the global economic recovery and anticipated rising crude oil prices in the international oil market. The Baseline macroeconomic assumptions underpinning the 2021 MAC-DSA are outlined below.

#### **Box 4.1: Baseline Scenario Assumptions**

**Real and Nominal GDP Growth:** As the economy recovers from the twin shocks of Covid-19 induced recession, the country is projected to experience economic expansion in 2021-2026. Real GDP growth is projected at 2.5 percent and 4.2 percent in 2021 and 2022, respectively. On average, real GDP is expected to grow by 3.14 percent per annum from 2021-2025, which is above the potential real GDP growth of 2.0 percent per annum during the corresponding period and pre-pandemic growth of 2.27 percent in 2019. In nominal terms, GDP is anticipated to grow by 10.69 percent in 2021, 9.36 percent in 2022, and an average of 9.99 percent from 2021-2026. This is above the potential nominal growth of 9.45 percent from 2021-2026.

The value of nominal GDP is projected at ₦168,602.6 billion in 2021, ₦184,382.0 billion in 2022 and ₦269,753.9 billion in 2026. Similarly, the consumption expenditure at current purchasers' value is expected to expand from ₦136,568.11 billion in 2021 to ₦149,349.40 billion in 2022 and ₦218,483.39 billion in 2026. Private investment requirements are ₦9,914.08 billion in 2021, ₦10,216.91 billion in 2022, ₦10,678.10 billion in 2023 and ₦12,290.46 billion in 2026. The public sector is expected to contribute ₦1,457.02 billion, ₦1,587.78 billion, ₦1,736.86 billion and ₦2,296.93 billion worth of investment in 2021, 2022, 2023 and 2026, respectively. Therefore, the projected investment will depend on the existing partnership between the private and public sectors.

**Inflation Rate:** Rising prices of consumer goods are expected to be continuously subdued during the period, as headline inflation on a year-on-year basis is estimated to decline from 15.75 percent in 2020 to 15.0 percent in 2021 and 13 percent in 2022 and 11.0 percent in 2023. For the rest of the period, headline inflation is estimated at 10.0 percent on average between 2024 and 2026. The falling prices are expected to boost consumer confidence and increase household spending. The anticipated reduction in inflation will be driven by a reduction in food prices and a stable exchange rate.

**Export:** Export is expected to grow during the projected period, driven largely by expected global economic recovery, which is likely to boost demand and sustain the increase in oil prices at the international market. In addition, the 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 the 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. Gas output is also expected to maintain an upward trend in the short to medium term, particularly with the near completion of the NLNG Train 7 Project and some upcoming liquefied natural gas companies, as well as the effective implementation of the Gas Expansion Programme.

**Current Account Position:** The current account is expected to maintain a deficit position in the short-term, spurred by an increase in non-oil imports and services payments, for industrial growth and infrastructural development to support the domestic economic recovery process. 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. In addition, the implementation of the Petroleum Industry Act is expected to further attract investments into the sector. However, a gradual but sustained recovery of the advanced economies would likely dampen growth expectations in FDI flows in the longer-term horizon.

**External Reserves:** The external reserve is expected to remain robust in 2021, supported by the inflow of Eurobond proceeds and additional allocation of Special Drawings Right by the International Monetary Fund. The external reserve is expected to remain above US\$40.00 billion in the short-to-medium-term horizon, and could finance more than 6.0 months of imports of goods and services all through, higher than the 3-month international benchmark. However, the potential drainers of external reserves include intervention in the foreign exchange market by the CBN, external debt service payments and financing import bills for goods and services.

**Nominal Exchange Rate:** The Nominal Exchange Rate has remained stable after the adoption of the NAFEX (also called I&E) rate as the official exchange rate on May 24, 2021, to further unify the rates at different segments of the foreign exchange market. From 2022-2024, exchange rate of the domestic currency is projected to remain at ₦410.15 per dollar in line with foreign exchange policy by the CBN supported by improved external reserves.

**Fiscal Deficit:** Fiscal deficit in the revised 2020 appropriation act was ₦4.608 trillion or 3.30 percent of GDP, relative to ₦2.474 trillion or 1.37 percent of GDP in 2019. The fiscal deficit is projected to stand at ₦4.486 trillion or 3.14 percent in 2021, ₦4.805 trillion or 3.27 percent in 2022 and ₦4.539 trillion or 3.00 percent in 2023. The deficits are above the threshold of 3 percent of GDP set by the Fiscal Responsibility Act, 2007, due to the economic challenge attributed to the Covid-19 pandemic. The deficit as a percentage of GDP is expected to start declining below the threshold from 2024 to the end of the projection period consistent with the projected faster growth of the GDP.

**New Financing:** New financing will continue to be in line with the country's Debt Management Strategy, which provides a guide to the borrowing activities of the Government in the medium-term. The Strategy is to borrow more from domestic sources using long-term instruments, while concessional funding from multilateral and bilateral sources will be prioritized for external borrowing, as well as market financing. The funding strategy is to support the strategic composition target of 70:30 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. The aim is to further strengthen the domestic debt, sustain the issuance of longer-tenored instruments to minimize refinancing risk by reducing the component of short-term debt instruments in the public debt portfolio.

## CHAPTER FIVE

### STRESS TEST SCENARIO, FAN CHART, HEAT MAP AND ALTERNATIVE SCENARIO

#### 5.1 Stress Test Scenario

- 5.1.1 The Stress Test Scenario comprises the Standard Macro-Fiscal shocks on the Baseline assumptions used to evaluate the impact of the shocks on the Total Public Debt stock in the medium-term. These Standard Macro-Fiscal shocks are Primary Balance, real GDP growth, real Interest Rate, real Exchange Rate and Combined Macro-Fiscal.
- 5.1.2 Under the real GDP Growth Shock in which the GDP is lowered than the baseline by 1 percentage point on the average in 2021 and 2022, the Total Public Debt-to-GDP ratio increased to 26.1 percent in 2023 compared to 25.5 percent in the Baseline, but declined to 23.9 percent in 2026 compared to 23.6 percent in the Baseline.
- 5.1.3 The Primary Balance Shock showed a similar trend with an increase of Total Public Debt-to-GDP ratio to 27.0 percent in 2023 compared to 23.6 percent in the Baseline, reflecting the impact of increasing Gross Financing Needs. The Primary Balance is defined as the difference between Government Revenue and Non-interest Expenditure (i.e. Expenditure minus payment on Interest and Principal).
- 5.1.4 The real Interest Rate Shock with an increase in the interest rate by 200 basis points over the projection period will increase the Debt service-to-Revenue ratio to 29.3 and 32.1 percent in 2022 and 2023, respectively compared to 28.7 and 31.5 percent in the Baseline.
- 5.1.5 The real Exchange Rate Shock with depreciating the Naira Exchange rate to the US Dollar by 50 percent, the maximum historical movement observed over the past ten years, will increase the Total Public Debt-to-GDP ratio to 30.9 and 30.5 percent in 2022 and 2023, respectively, compared to 26.1 and 25.8 percent in the Baseline.
- 5.1.6 The Combined Macro-Fiscal Shock that combines the individual shock (real GDP growth, inflation, real Interest rate, real Exchange rate and Primary Balance) pushed the Total Public Debt-to-GDP ratio to 30.3 percent in 2026 compared to the 23.6 percent in the Baseline.
- 5.1.7 Under Customized Shock arising from oil price volatility, which could affect the revenue and GDP growth, the Total Public-Debt-to-GDP ratio is further pushed to 35.4 percent above 23.6 percent in the Baseline in 2026.



## 5.2 Fan Chart

5.2.1 The Fan Chart presents the possible evolution of debt over the medium-term based on Symmetric and Asymmetric distribution of debt. Under the Symmetric distribution, debt is projected at about 25 percent, while in Asymmetric distribution with no positive shock to Primary Balance and zero as the maximum positive Primary Balance shock as percent of GDP, the Chart showed an upward-sloping debt path, which is lower than 30 percent of GDP over the projection period.

## 5.3 Heat Map

5.3.1 In the Heat Map, all shock scenarios for the Debt Level and Gross Financing Needs shows green, indicating a low risk to debt sustainability as all the debt burden indicators are below the Baseline and Shock scenarios. (Figure 6.1). The Total Public Debt-to-GDP ratio was below the MAC-DSA's benchmark of 70 percent for the Emerging Markets at 25.5, 26.1 and 25.8 percent in 2021, 2022 and 2023, respectively, and thereafter declined to 23.6 percent in 2026. Similarly, the Gross Financing Needs was high but lower than the MAC-DSA's benchmark of 15 percent at 3.8, 3.1 and 2.4 percent in 2021, 2022 and 2023, respectively. The financing needs are met by domestic financing through the issuances of FGN securities in the domestic financing market. External financing would be from the concessional and semi-concessional sources, as well as market financing by the issuance of Eurobonds in line with the Nigeria's Medium-Term Debt Management Strategy, 2020-2023.

5.3.2 The Heat Map, however, shows yellow for Debt Profile identifying Market Perception, Share of Debt held by Non-Resident and Foreign Currency Denominated Debt with moderate risk to debt sustainability in the medium-term. Risk arising from Market Perception measured by Bond Spread at 315 basis points crossed the early warning threshold of 200 basis points, but below the 600 basis points for upper early warning threshold. The issuance of USD4.0 billion Eurobonds in 2021 increased the exposure of the Total Public Debt profile to foreign exchange risk, which is mitigated by the domestic currency denominated debt, which accounted for 61.40 percent of the Total Public Debt as at December 31, 2020. Refinancing risk is minimised by longer maturities of the Eurobonds and the spread of maturities to prevent the bunching of maturities, thus, achieving a smooth redemption profile.

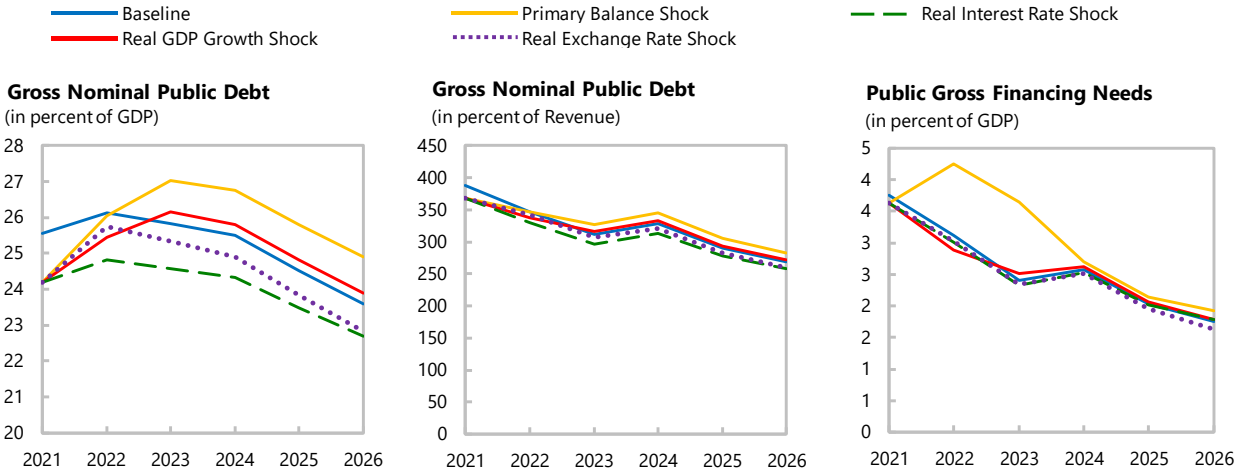
## 5.4 Alternative Scenario

5.4.1 Under the Alternative Scenario by the inclusion of FGN Guarantees in the sum of ₦4.63 trillion as at December 2021 and Ways and Means Advances of the Central Bank of Nigeria in the sum of ₦15.0 trillion, the Total Public Debt-to-GDP ratios were relatively high at 28.0 and 36.5

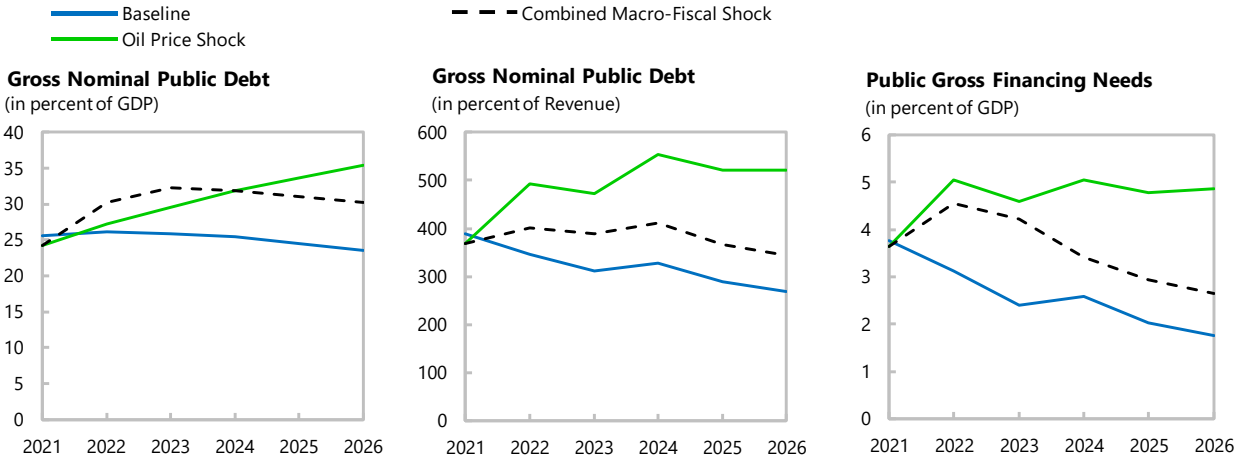
percent in 2021 and 2022 respectively compared to 25.5 and 26.1 percent in the Baseline. Although these ratios are below the benchmark of 60 percent for the Emerging Market throughout the projection period, they are associated with an increase in short-term risks and cost of debt servicing arising from CBN financing. These would be moderated significantly when on-going arrangements to securitise the Ways and Means Advances are concluded.

**Figure 5.1: Nigeria Public DSA - Stress Tests**

**Macro-Fiscal Stress Tests**



**Additional Stress Tests**



**Underlying Assumptions**  
(in percent)

	2021	2022	2023	2024	2025	2026
<b>Primary Balance Shock</b>						
Real GDP growth	2.4	4.2	2.3	3.3	3.3	3.3
Inflation	8.1	5.0	6.6	6.7	6.7	6.7
Primary balance	-1.5	-2.2	-1.0	0.3	1.0	0.9
Effective interest rate	7.7	7.8	8.9	10.4	10.4	10.5
<b>Real Interest Rate Shock</b>						
Real GDP growth	2.4	4.2	2.3	3.3	3.3	3.3
Inflation	8.1	5.0	6.6	6.7	6.7	6.7
Primary balance	-1.5	-1.0	0.2	0.3	1.0	0.9
Effective interest rate	7.7	7.8	9.0	10.6	10.9	11.1
<b>Combined Shock</b>						
Real GDP growth	2.4	1.4	-0.5	3.3	3.3	3.3
Inflation	8.1	4.2	5.9	6.7	6.7	6.7
Primary balance	-1.5	-2.2	-1.0	0.3	1.0	0.9
Effective interest rate	7.7	8.4	8.7	10.3	10.7	10.9
<b>Real GDP Growth Shock</b>						
Real GDP growth	2.4	1.4	-0.5	3.3	3.3	3.3
Inflation	8.1	4.2	5.9	6.7	6.7	6.7
Primary balance	-1.5	-0.8	0.1	0.3	1.0	0.9
Effective interest rate	7.7	7.8	8.7	10.2	10.3	10.4
<b>Real Exchange Rate Shock</b>						
Real GDP growth	2.4	4.2	2.3	3.3	3.3	3.3
Inflation	8.1	14.6	6.6	6.7	6.7	6.7
Primary balance	-1.5	-1.0	0.2	0.3	1.0	0.9
Effective interest rate	7.7	8.4	8.3	9.7	9.9	10.0

## CHAPTER SIX

### CONCLUSION AND RECOMMENDATIONS

#### 6.1 Public Debt Risk Assessment

6.1.1 The Public Debt Sustainability Analysis shows that Nigeria's Total Public Debt is sustainable in the medium-term. The Debt Level and Gross Financing Needs show low risk to debt sustainability as all the debt burden indicators are below the Baseline and Shock scenarios. The Total Public Debt-to-GDP ratio was below the MAC-DSA's benchmark of 70 percent for the Emerging Markets at 25.5, 26.1 and 25.8 percent in 2021, 2022 and 2023, respectively, and thereafter declined to 23.6 percent in 2026. Similarly, the Gross Financing Needs are high but lower than the MAC-DSA's benchmark of 15 percent at 3.8, 3.1 and 2.4 percent in 2021, 2022 and 2023, respectively. The financing needs are met by domestic financing through the issuances of FGN securities in the domestic financing market. External financing would be from the concessional and semi-concessional sources, as well as market financing by the issuance of Eurobonds in line with the Nigeria's Medium-Term Debt Management Strategy, 2020-2023.

6.1.2 The Debt Profile, however, shows moderate risk and susceptible to some shocks such as Market Perception, Share of Debt held by Non-Resident and Foreign Currency Denominated Debt, which may undermine debt sustainability in the medium-term. Risk arising from Market Perception measured by Bond Spread at 315 basis points crossed the early warning threshold of 200 basis points, but below the 600 basis points for upper early warning threshold. The issuance of USD4.0 billion Eurobonds in 2021 increased the exposure of the Total Public Debt profile to foreign exchange risk, which is mitigated by the domestic currency denominated debt, which accounted for 61.40 percent of the Total Public Debt as at December 31, 2020. Refinancing risk is minimised by longer maturities of the Eurobonds and the spread of maturities to prevent the bunching of maturities, thus, achieving a smooth redemption profile. Also, the Debt Profile is exposed to risks associated with the volatility of oil prices, as well as enhanced short-term debt vulnerabilities and cost of debt servicing arising from CBN financing. However, the sustained implementation of economic initiatives and reforms by the Government aimed at stimulating growth and boosting revenue are expected to moderate these shocks and financing pressures in the medium-term. In addition, if the CBN financing through Ways and Means Advances is re-structured into long term debt.

## 6.2 Recommendations

The key policy recommendations of the 2021 MAC-DSA exercise include:

### 6.2.1 Borrowing Limit for 2022-2023

The Borrowing Limit for 2022 in this DSA Exercise is determined based on the Country Specific Debt Limit of 40 percent (up to 2023), for Public Debt-to- GDP ratio. Given that the Total Public Debt-to-GDP ratio is projected at 26.12 percent by December 31, 2022, the fiscal space available for borrowing is estimated at 13.88 percent. Therefore, based on the projected 2022 GDP of US\$448.32 billion and Nigeria's country-specific Debt to GDP limit of 40 percent, the Borrowing Limit for the fiscal years 2022 and 2023 will be about US\$62.21 billion or ₦25.586 trillion (at an exchange rate of US\$1/₦11.3). In line with Nigeria's Medium-term Debt Management Strategy, 2020-2023, the proposed New Borrowing could be raised from both Domestic and External sources.

These recommended maximum amounts that could be borrowed, would depend on the absorptive capacity of the domestic debt market, and the options available in the external market. In line with the revised Medium-Term Debt Management Strategy, 2020-2023. The borrowings would be long-term, and would be strategically deployed to fund priority infrastructure projects.

### 6.2.2 Other Recommendations

- ix Strengthening and continued implementation of the Strategic Revenue Growth Initiatives to shore up Government revenues, to reduce financing pressures, and expand the fiscal space;
- x Sustaining the implementation of the National Development Plan (NDP), 2021-2025 to maintain the recovery in the economy;
- xi Rationalizing expenditure by focusing on priority spending on growth-enhancing sector of the economy;
- xii Effective implementation of the Petroleum Industry Act (PIA), 2021 which is expected to attract investment in the oil and gas sector;
- xiii Enhancing growth in non-oil Export through fiscal and trade incentives,
- xiv Maintaining relative stability in the foreign exchange market;
- xv Encouraging private sector participation in funding infrastructure projects through Public-Private Partnership arrangements; and,
- xvi Improving and sustaining political and macroeconomic stability, as well as addressing security and infrastructural challenges, to attract Foreign Direct Investments (FDIs).

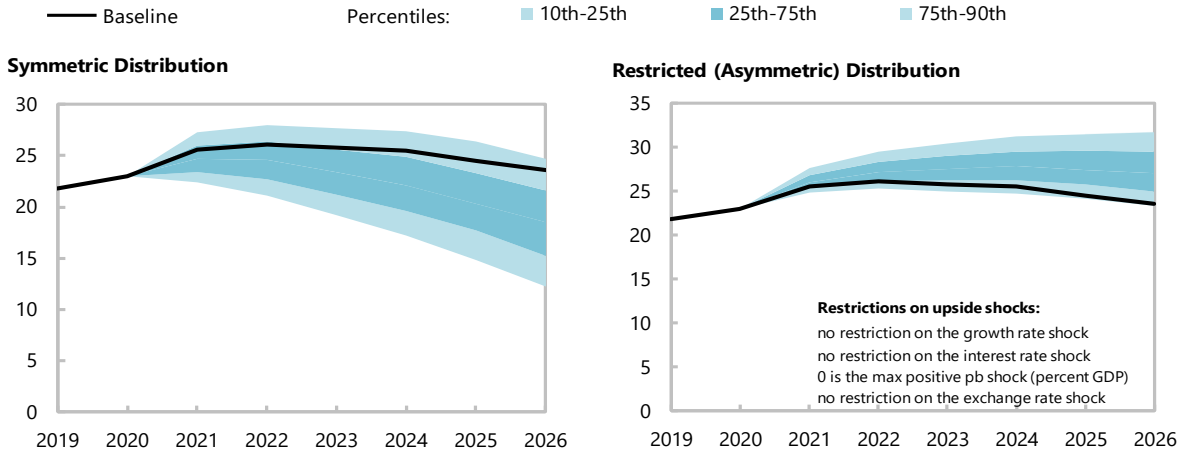
**Figure 6.1: Nigeria Public DSA Risk Assessment**

**Heat Map**

Debt level <sup>1/</sup>	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Gross financing needs <sup>2/</sup>	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile <sup>3/</sup>	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

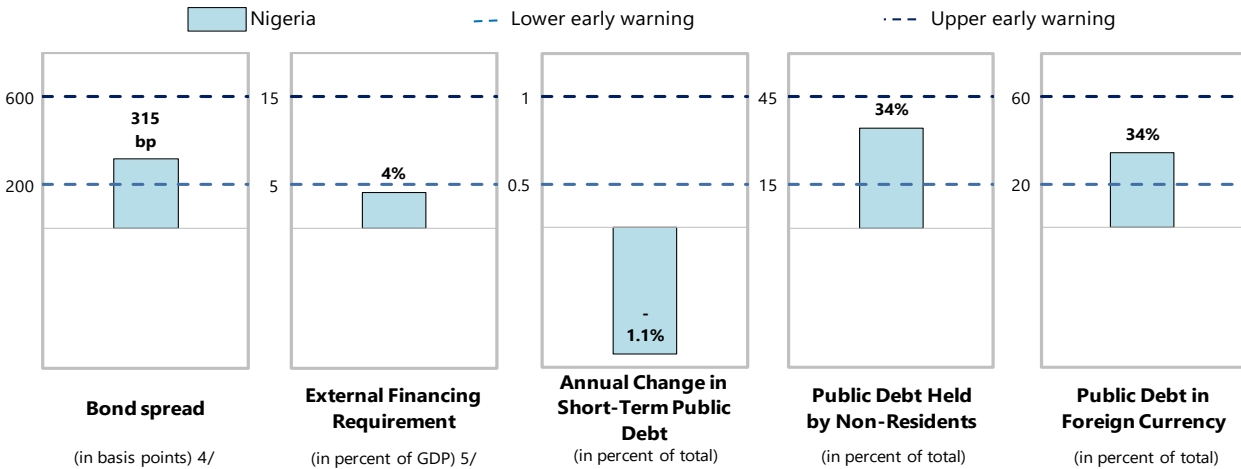
**Evolution of Predictive Densities of Gross Nominal Public Debt**

(in percent of GDP)



**Debt Profile Vulnerabilities**

(Indicators vis-à-vis risk assessment benchmarks, in 2020)



Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 70% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 15% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white. Lower and upper risk-assessment benchmarks are:

200 and 600 basis points for bond spreads; 5 and 15 percent of GDP for external financing requirement; 0.5 and 1 percent for change in the share of short-term debt; 15 and 45 percent for the public debt held by non-residents; and 20 and 60 percent for the share of foreign-currency denominated debt.

4/ EMBIG (bp), an average over the last 3 months, 20-Apr-21 through 19-Jul-21.

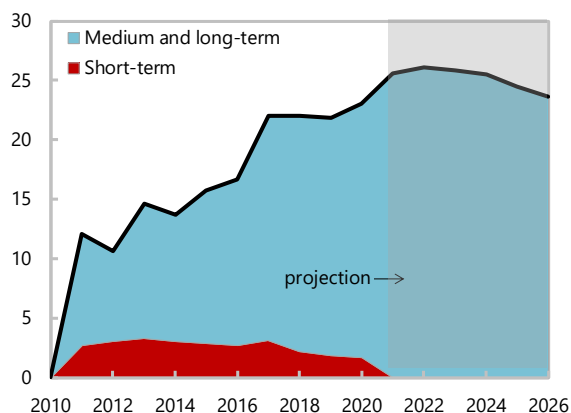
5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

**Figure 6.2: Nigeria Public DSA - Composition of Public Debt and Alternative Scenarios**

**Composition of Public Debt**

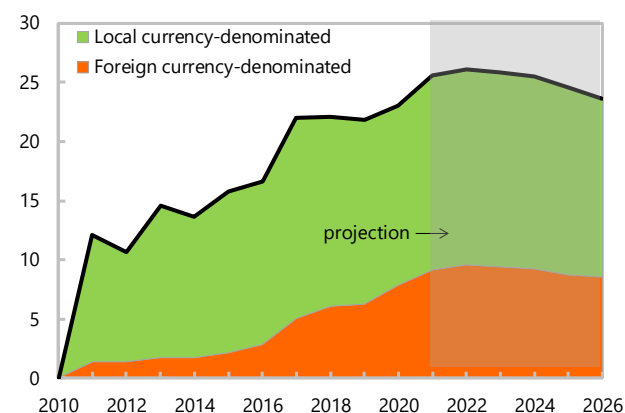
**By Maturity**

(in percent of GDP)



**By Currency**

(in percent of GDP)

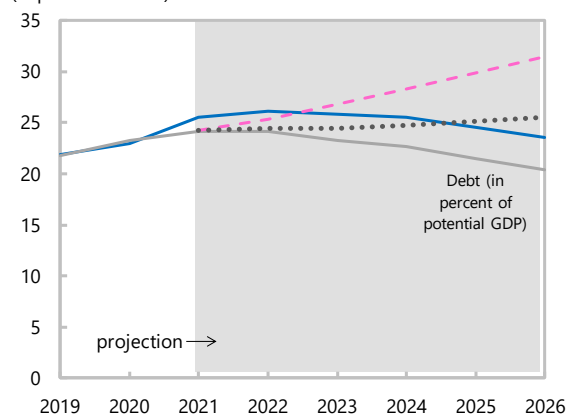


**Alternative Scenarios**

— Baseline      ..... Historical      - - - Constant Primary Balance

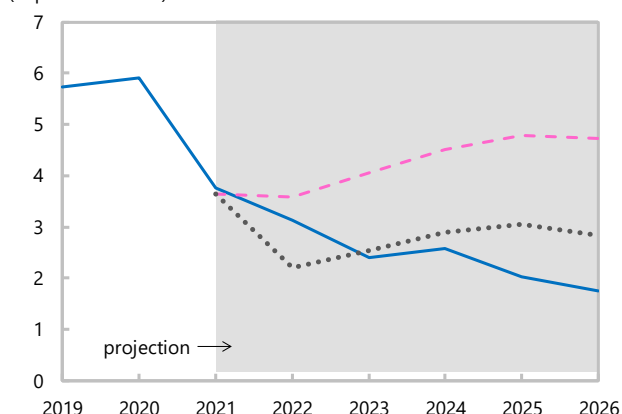
**Gross Nominal Public Debt <sup>1/</sup>**

(in percent of GDP)



**Public Gross Financing Needs**

(in percent of GDP)



**Underlying Assumptions**

(in percent)

<b>Baseline Scenario</b>	2021	2022	2023	2024	2025	2026
Real GDP growth	2.4	4.2	2.3	3.3	3.3	3.3
Inflation	8.1	5.0	6.6	6.7	6.7	6.7
Primary Balance	-1.5	-1.0	0.2	0.3	1.0	0.9
Effective interest rate	7.7	7.8	8.7	10.2	10.3	10.4

<b>Constant Primary Balance Scenario</b>	2021	2022	2023	2024	2025	2026
Real GDP growth	2.4	4.2	2.3	3.3	3.3	3.3
Inflation	8.1	5.0	6.6	6.7	6.7	6.7
Primary Balance	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5
Effective interest rate	7.7	7.8	8.8	10.3	10.3	10.4

<b>Historical Scenario</b>	2021	2022	2023	2024	2025	2026
Real GDP growth	2.4	2.2	2.2	2.2	2.2	2.2
Inflation	8.1	5.0	6.6	6.7	6.7	6.7
Primary Balance	-1.5	-0.1	-0.1	-0.1	-0.1	-0.1
Effective interest rate	7.7	7.8	8.6	10.2	10.2	10.3

## Annexure 1: Nigeria's Baseline Scenario, 2011-2026

BASELINE DEBT												First Year of projection							
		Unit and Scale	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>NOMINAL PUBLIC DEBT</b>																			
<b>Total Gross Public Debt</b>	Billions LCU	#REF!		7744.1	7554.3	11581.7	12898.3	15107.0	20318.5	25074.5	28240.5	31507.7	37101.5	43062.5	48166.9	51939.4	56533.3	59953.6	63627.3
of which: guarantees	Billions LCU																		
<b>Old Debt</b>	Billions LCU	#REF!		7744.1	7554.3	11581.7	12898.3	15107.0	20318.5	25074.5	28240.5	31507.7	37101.5	36978.0	36423.2	35392.2	34269.8	33050.8	32659.1
o/w local-currency debt	Billions LCU	#REF!		6856.1	6537.5	10208.1	11266.8	12995.4	16839.6	19287.0	20481.3	22485.3	24395.9	23076.2	23628.6	23503.4	23458.4	23438.1	23428.9
o/w public guarantees	Billions LCU																		
o/w foreign-currency debt	Billions LCU	#REF!		888.0	1016.7	1373.6	1631.5	2111.5	3478.9	5787.5	7759.2	9022.4	12705.6	13101.8	12794.6	11888.8	10811.4	9612.7	9230.1
o/w public guarantees	Billions LCU																		
o/w short-term debt at original maturity	Billions LCU	#REF!		1727.9	2122.9	2581.6	2815.5	2772.9	3277.3	3579.8	2736.0	2651.5	2720.4	0.0	0.0	0.0	0.0	0.0	0.0
o/w MLT debt	Billions LCU	#REF!		6016.2	5431.3	9000.1	10082.8	12334.1	17041.2	21494.7	25504.5	28856.2	34381.1	36978.0	36423.2	35392.2	34269.8	33050.8	32659.1
<b>New Debt</b>	Billions LCU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6084.5	11743.7	16547.2	22263.5	26902.8	30968.2
o/w local-currency debt	Billions LCU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3753.9	6892.8	9527.3	12597.4	15054.9	17115.8
o/w foreign-currency debt	Billions LCU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2330.6	4850.9	7019.9	9666.1	11847.9	13852.4
o/w short-term debt at original maturity	Billions LCU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o/w MLT debt	Billions LCU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6084.5	11743.7	16547.2	22263.5	26902.8	30968.2
<b>Total Net Public Debt</b>	Billions LCU	#REF!		7744.1	7554.3	11581.7	12898.3	15107.0	20318.5	25074.5	28240.5	31507.7	37101.5	43062.5	48166.9	51939.4	56533.3	59953.6	63627.3
<b>NOMINAL GROSS FINANCING NEEDS</b>																			
<b>Gross Financing Needs</b>	Billions LCU			1032.626	1740.8	1778.1	1802.9	2543.1	3690.6	6193.8	6236.7	8251.4	9528.6	6336.5	5755.1	4826.3	5728.7	4960.5	4732.8
Primary deficit	Billions LCU		0.0	-2245.6	-1511.6	-1545.5	-1684.3	-1058.5	1028.5	2946.2	2368.3	4267.1	5537.9	2574.8	1769.4	-408.5	-704.3	-2388.7	-2518.7
Interest Receipts	Billions LCU			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest Payments	Billions LCU			1004.1	990.1	1081.1	1227.4	1337.7	1563.9	1882.9	2392.1	2395.0	2432.9	2843.1	3359.2	4203.8	5310.6	5826.0	6227.4
o/w domestic-currency debt	Billions LCU													2312.7	2658.1	3352.5	4284.2	4661.7	4970.7
o/w foreign-currency debt	Billions LCU			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	530.3	701.1	851.3	1026.4	1164.3	1256.7
Amortization Payments	Billions LCU			2274.1	2262.3	2242.4	2259.9	2263.9	998.2	1364.7	1476.4	1589.3	1557.9	918.7	626.6	1031.0	1122.4	1523.2	1024.1
<b>UNDERLYING ASSUMPTIONS</b>																			
<b>Nominal GDP in LCU (current prices)</b>	Billions LCU	#REF!		64142.9	70936.5	79272.2	94349.3	95957.4	122242.5	113789.7	128120.7	144247.8	161319.4	168802.6	184382.0	201153.0	221775.8	244565.1	269753.9
<b>Real GDP (constant prices)</b>	Billions LCU	#REF!		57511.0	59929.9	63218.7	67152.8	69023.9	67931.2	68491.0	69799.9	71387.8	70014.4	71694.7	74705.9	76424.1	78946.1	81567.9	84293.9
<b>Potential GDP (current prices)</b>	Billions LCU	#REF!		60046.4	68530.4	77467.9	86857.1	96756.9	107301.9	118663.9	131013.2	144514.5	159335.5	178216.8	199335.5	222956.7	249377.1	278928.3	311981.3
<b>Potential GDP (constant prices)</b>	Billions LCU	#REF!		56086.7	58763.8	62580.1	66126.4	68890.8	70412.7	70553.5	71591.9	71538.3	73237.5	75782.9	80764.6	84708.0	88771.4	93028.8	97489.3
<b>Output gap</b>	Percent	#REF!		2.54%	1.98%	1.02%	1.55%	-1.24%	-3.52%	-2.92%	-2.50%	-0.21%	-4.40%	-5.39%	-7.50%	-9.78%	-11.07%	-12.32%	-13.54%
<b>Public sector revenues and grants</b>	Billions LCU	#REF!		6714.6	6727.5	7266.6	6959.8	6088.6	5415.2	5678.0	7689.5	8346.8	7383.8	11083.8	13877.2	16641.4	17195.9	20673.7	23727.5
<b>Debt service</b>	Billions LCU	#VALUE!		3278.3	3252.4	3323.6	3487.2	3601.6	2562.1	3247.5	3888.4	3984.4	3990.8	3761.8	3965.7	5234.8	6433.0	7349.2	7251.4
<b>Public sector non-interest revenue</b>	Billions LCU	#REF!		6714.6	6727.5	7266.6	6959.8	6088.6	5415.2	5678.0	7689.5	8346.8	7383.8	11083.8	13877.2	16641.4	17195.9	20673.7	23727.5
<b>Public sector non-interest expenditure</b>	Billions LCU	#REF!		4468.9	5215.9	5721.1	5275.5	5010.1	6443.7	8624.2	10057.8	12613.8	12921.6	13658.5	15466.6	16232.9	16491.6	18285.0	21208.8
<b>Primary balance</b>	Billions LCU		0.0	2245.6	1511.6	1545.5	1684.3	1058.5	-1028.5	-2946.2	-2368.3	-4267.1	-5537.9	-2574.8	-1769.4	408.5	704.3	2388.7	2518.7
<b>Nominal GDP growth</b>	Growth rate (percent)			10.6%	11.8%	19.0%	1.7%	27.4%	-6.9%	12.6%	12.6%	11.8%	4.5%	9.4%	9.1%	10.3%	10.3%	10.3%	
<b>Real GDP growth</b>	Growth rate (percent)			4.2%	5.5%	6.2%	2.8%	-1.6%	0.8%	1.9%	2.3%	-1.9%	2.4%	4.2%	2.3%	3.3%	3.3%	3.3%	
<b>Potential real GDP growth</b>	Growth rate (percent)			4.8%	6.5%	5.7%	5.4%	0.7%	0.2%	1.5%	-0.1%	2.4%	3.5%	6.2%	4.9%	4.8%	4.8%	4.8%	
<b>Inflation</b>	Growth rate (percent)			8.9%	6.1%	6.1%	5.4%	10.1%	10.4%	8.8%	10.4%	7.7%	8.1%	5.0%	6.6%	6.7%	6.7%	6.7%	
<b>Non-interest revenue-to-GDP ratio</b>	% of GDP			10.5%	9.5%	9.2%	7.4%	6.3%	4.4%	5.0%	6.0%	5.8%	4.6%	6.6%	7.5%	8.3%	7.8%	8.5%	8.8%
<b>Non-interest expenditure-to-GDP ratio</b>	% of GDP			7.0%	7.4%	7.2%	5.6%	5.2%	5.3%	7.6%	7.9%	8.0%	8.1%	8.1%	8.1%	7.4%	7.5%	7.9%	
<b>Primary Balance</b>	% of GDP			3.5%	2.1%	1.9%	1.8%	1.1%	-0.8%	-2.6%	-1.8%	-3.0%	-3.4%	-1.5%	-1.0%	0.2%	0.3%	1.0%	0.9%
<b>Privatization receipts-to-GDP</b>	% of GDP			0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Recognition of implicit contingent liabilities-to-GDP</b>	% of GDP			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Please specify (2) (e.g., other debt flows) (+ increases financing needs):</b>	% of GDP			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Effective interest rate</b>	Ratio (percent)			12.8%	14.3%	10.6%	10.4%	10.4%	9.3%	9.5%	8.5%	7.7%	7.7%	7.8%	8.7%	10.2%	10.3%	10.4%	
Denominated in local currency	Ratio (percent)												9.5%	9.6%	11.0%	13.0%	12.9%	12.9%	
Denominated in foreign currency	Ratio (percent)			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	4.5%	4.8%	5.4%	5.7%	5.9%	
<b>Effective real interest rate</b>	Ratio (percent)			3.5%	7.7%	4.2%	4.7%	0.3%	-1.0%	0.7%	-1.7%	0.0%	-0.4%	2.7%	2.0%	3.3%	3.3%	3.4%	
Denominated in local currency	Ratio (percent)												1.3%	4.4%	4.1%	5.8%	5.8%	5.8%	
Denominated in foreign currency	Ratio (percent)			-8.2%	-5.8%	-5.8%	-5.1%	-9.2%	-9.4%	-8.1%	-9.4%	-7.1%	-3.6%	-0.4%	-1.7%	-1.2%	-1.0%	-0.8%	
<b>Average nominal interest rate, r</b>	Ratio (percent)			12.8%	14.3%	10.6%	10.4%	10.4%	9.3%	9.5%	8.5%	7.7%	7.7%	7.8%	8.7%	10.2%	10.3%	10.4%	
<b>Nominal Exchange Rate -- average (LCU/USD)</b>	LCU/USD			158.3	156.1	156.0	169.7	196.5	304.5	305.5	305.3	307.0	390.0	411.27	411.27	411.27	411.27	411.27	411.27
<b>Nominal Exchange Rate -- end of period (LCU/USD)</b>	LCU/USD			153.8	157.5	157.3	158.6	196.5	253.2	305.8	305.8	306.9	385.0	409.03	411.27	411.27	411.27	411.27	411.27
<b>Nominal exchange rate depreciation</b>	Growth rate (percent)				2.4%	-0.1%	0.8%	23.9%	28.9%	20.8%	0.0%	0.4%	25.4%	6.2%	0.5%	0.0%	0.0%	0.0%	0.0%
<b>Domestic Deflator -- local currency</b>	Index			107.06	116.62	123.79	131.35	138.44	152.39	168.19	183.00	202.01	217.56	235.17	246.81	263.21	280.92	299.83	320.02
<b>Change in domestic deflator in LCU</b>	Growth rate (percent)			8.9%	6.1%	6.1%	5.4%	10.1%	10.4%	8.8%	10.4%	7.7%	8.1%	5.0%	6.6%	6.7%	6.7%	6.7%	
<b>Domestic Deflator -- USD</b>	Index			0.70	0.74	0.79	0.83	0.70	0.60	0.55	0.60	0.66	0.57	0.57	0.60	0.64	0.68	0.73	0.78
<b>Change in domestic deflator in USD</b>	Growth rate (percent)			6.4%	6.3%	5.3%	-15.0%	-14.6%	-8.6%	8.8%	10.0%	-14.1%	1.7%	4.4%	6.6%	6.7%	6.7%	6.7%	



## Annexure 1: Nigeria's Baseline Scenario, 2011-2026 (Continued)

DEBT BURDEN RATIOS																				
Total public debt-to-GDP	% of GDP				0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	23.0%	25.5%	0.26	0.26	0.25	0.25	0.24
Total public debt-to-Revenue	% of revenue				1.2	1.1	1.6	1.9	2.5	3.8	4.4	3.7	3.8	5.0	3.89	3.47	3.12	3.29	2.90	2.68
Debt service-to-GDP	% of GDP				0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.02	0.03	0.03	0.03	0.03
Debt service-to-Revenue	% of revenue				0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.5	0.5	0.5	0.34	0.29	0.31	0.37	0.36	0.31
Gross financing needs-to-GDP	% of GDP				0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	3.8%	3.1%	2.4%	2.6%	2.0%	1.8%
Gross financing needs-to-revenue	% of revenue				0.2	0.3	0.2	0.3	0.4	0.7	1.1	0.8	1.0	1.3	0.57	0.41	0.29	0.33	0.24	0.20
Total Net Public Debt-to-GDP	% of GDP	#REF!			0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2
Total Net Public Debt-to-Revenue	% of revenue	#REF!			1.2	1.1	1.6	1.9	2.5	3.8	4.4	3.7	3.8	5.0	3.9	3.5	3.1	3.3	2.9	2.7
Total Gross Public Debt-to-potential GDP	% of potential GDP	#REF!			0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

SHOCK CALIBRATION STATISTICS																			
					Historical aver	St.dev.	Max.	Min.	Coefficient of variation					Projection average	St.dev.	Max.	Min.	Difference in bps (Average)	Difference in bps (Max)
Real interest rate					2.0%		7.7%							2.4%				-34.17	530.40
Real GDP growth rate					2.2%	2.8%			1.3										
Revenue-to-GDP ratio					6.9%														
Non-interest expenditure-to-GDP ratio					7.0%														
Primary balance					-0.1%	2.5%													

PUBLIC DEBT (% GDP) PROFILE - CHART DATA																			
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Gross public sector debt	% of GDP	#VALUE!	0.0	12.1	10.7	14.6	13.7	15.7	16.6	22.0	22.0	21.8	23.0	25.5	26.1	25.8	25.5	24.5	23.6
of which: guarantees	% of GDP	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Foreign currency-denominated	% of GDP	#REF!	1.4	1.4	1.7	1.7	2.2	2.8	5.1	6.1	6.3	7.9	9.2	9.6	9.4	9.2	8.8	8.6	
Local currency-denominated	% of GDP	#REF!	10.7	9.2	12.9	11.9	13.5	13.8	16.9	16.0	15.6	15.1	16.4	16.6	16.4	16.3	15.7	15.0	
Short-term	% of GDP	#REF!	2.7	3.0	3.3	3.0	2.9	2.7	3.1	2.1	1.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	
Medium and long-term	% of GDP	#REF!	9.4	7.7	11.4	10.7	12.9	13.9	18.9	19.9	20.0	21.3	25.5	26.1	25.8	25.5	24.5	23.6	
Short-term debt, in percent of total debt	% of total public debt	#REF!	22.3	28.1	22.3	21.8	18.4	16.1	14.3	9.7	8.4	7.3	0.0	0.0	0.0	0.0	0.0	0.0	
Foreign currency-denominated debt, in percent of total debt	% of total public debt	#REF!	11.5	13.5	11.9	12.6	14.0	17.1	23.1	27.5	28.6	34.2	35.8	36.6	36.4	36.2	35.8	36.3	
Gross financing needs	% of GDP		0.0	1.6	2.5	2.2	1.9	2.7	2.9	5.4	4.9	5.7	3.8	3.1	2.4	2.6	2.0	1.8	
Net public sector debt	% of GDP																		
Gross public sector debt	% of potential GDP	#REF!	0.0	12.9	11.0	15.0	14.9	15.6	18.9	21.1	21.6	21.8	23.3	24.2	24.2	23.3	22.7	21.5	20.4

PUBLIC SECTOR DEBT DYNAMICS														cumulative					
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Change in gross public sector debt	% of GDP	#VALUE!	12.1	-1.4	4.0	-0.9	2.1	0.9	5.4	0.0	-0.2	1.2	2.5	0.6	-0.3	-0.3	-1.0	-0.9	0.6
Identified debt-creating flows (4+7+12)	% of GDP				-2.2	-1.7	-2.0	-0.5	1.7	2.8	1.6	2.1	5.4	1.2	0.6	-0.3	-0.3	-1.0	-0.9
Primary deficit	% of GDP				-2.1	-1.9	-1.8	-1.1	0.8	2.6	1.8	3.0	3.4	1.5	1.0	-0.2	-0.3	-1.0	-0.9
Primary (noninterest) revenue and grants	% of GDP				9.5	9.2	7.4	6.3	4.4	5.0	6.0	5.8	4.6	6.6	7.5	8.3	7.8	8.5	8.8
Primary (noninterest) expenditure	% of GDP				7.4	7.2	5.6	5.2	5.3	7.6	7.9	8.7	8.0	8.1	8.5	8.1	7.4	7.5	7.9
Automatic debt dynamics 2/ (8-11)	% of GDP				0.0	0.2	-0.3	0.6	0.9	0.2	-0.3	-0.8	1.9	-0.2	-0.3	-0.1	0.0	0.0	0.0
Contribution from interest rate/growth differential 3/	% of GDP				-0.1	0.2	-0.3	0.3	0.3	-0.3	-0.3	-0.9	0.4	-0.6	-0.4	-0.1	0.0	0.0	0.0
Real interest rate	% of GDP				0.4	0.7	0.5	0.6	0.1	-0.2	0.1	-0.4	0.0	-0.1	0.6	0.5	0.8	0.8	3.3
Real GDP growth	% of GDP				-0.4	-0.5	-0.8	-0.4	0.2	-0.1	-0.4	-0.4	0.4	-0.5	-1.0	-0.6	-0.8	-0.8	-4.3
Contribution from exchange rate depreciation 4/	% of GDP				0.0	0.0	0.0	0.4	0.6	0.5	0.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.5
Other debt-creating flows	% of GDP				-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0	-0.2
Privatization receipts (negative)	% of GDP				-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.2
Recognition of implicit or contingent liabilities	% of GDP				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Please specify 2/ (e.g., other debt flows) (+ increases financing n % of GDP	% of GDP				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residual	% of GDP				0.8	5.7	1.1	2.5	-0.8	2.6	-1.6	-2.3	-4.2	1.3	0.0	0.0	0.0	0.0	1.3
Denominator = 1+g+p+rgp					1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	6.6

PUBLIC SECTOR DEBT DYNAMICS - TABLE/CHART DATA														cumulative					
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Change in gross public sector debt	% of GDP		12.1	-1.4	4.0	-0.9	2.1	0.9	5.4	0.0	-0.2	1.2	2.5	0.6	-0.3	-0.3	-1.0	-0.9	0.6
Identified debt-creating flows	% of GDP		0.0	0.0	-2.2	-1.7	-2.0	-0.5	1.7	2.8	1.6	2.1	5.4	0.8	0.5	-0.3	-0.3	-1.0	-0.9
Primary deficit	% of GDP		0.0	0.0	-2.1	-1.9	-1.8	-1.1	0.8	2.6	1.8	3.0	3.4	1.5	1.0	-0.2	-0.3	-1.0	-0.9
Primary (noninterest) revenue and grants	% of GDP		0.0	0.0	9.5	9.2	7.4	6.3	4.4	5.0	6.0	5.8	4.6	6.6	7.5	8.3	7.8	8.5	8.8
Primary (noninterest) expenditure	% of GDP		0.0	0.0	7.4	7.2	5.6	5.2	5.3	7.6	7.9	8.7	8.0	8.1	8.5	8.1	7.4	7.5	7.9
Automatic debt dynamics	% of GDP		0.0	0.0	0.0	0.2	-0.3	0.6	0.9	0.2	-0.3	-0.8	1.9	-0.6	-0.4	-0.1	0.0	0.0	-1.1
Contribution from interest rate/growth differential	% of GDP		0.0	0.0	-0.1	0.2	-0.3	0.3	0.3	-0.3	-0.3	-0.9	0.4	-0.6	-0.4	-0.1	0.0	0.0	-1.1
Real interest rate	% of GDP		0.0	0.0	0.4	0.7	0.5	0.6	0.1	-0.2	0.1	-0.4	0.0	-0.1	0.6	0.5	0.8	0.8	3.3
Real GDP growth	% of GDP		0.0	0.0	-0.4	-0.5	-0.8	-0.4	0.2	-0.1	-0.4	-0.4	0.4	-0.5	-1.0	-0.6	-0.8	-0.8	-4.3
Exchange rate depreciation	% of GDP		0.0	0.0	0.0	0.0	0.4	0.6	0.5	0.0	0.0	1.5	0.5	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Other debt-creating flows	% of GDP		0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0	-0.2
Privatization receipts (negative)	% of GDP		0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.2
Recognition of implicit or contingent liabilities	% of GDP		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Please specify 2/ (e.g., other debt flows) (+ increases financing n % of GDP	% of GDP		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residual 5/	% of GDP		0.0	0.0	0.8	5.7	1.1	2.5	-0.8	2.6	-1.6	-2.3	-4.2	1.8	0.0	0.0	0.0	0.0	1.8

## Annexure 2: Nigeria's Alternative Scenario, 2011-2026

BASELINE DEBT												First Year of projection							
Unit and Scale		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>NOMINAL PUBLIC DEBT</b>																			
<b>Total Gross Public Debt</b>	Billions LCU	#REF!		9179.8	11135.0	15111.0	14597.2	16756.7	21651.9	26915.9	30652.9	34367.6	41286.5	47247.5	67351.9	71124.4	75718.3	78935.9	82204.2
of which: guarantees	Billions LCU	#REF!		1435.7	3580.7	3529.3	1698.9	1649.8	1333.4	1841.3	2412.4	2859.9	4185.0	4630.6	4630.6	4630.6	4630.6	4630.6	4630.6
<b>Old Debt</b>	Billions LCU	#REF!		9179.8	11135.0	15111.0	14597.2	16756.7	21651.9	26915.9	30652.9	34367.6	41286.5	41163.0	40608.2	39577.2	38454.8	37235.8	36844.1
o/w local-currency debt	Billions LCU	#REF!		8291.9	10118.2	13737.4	12965.7	14645.2	18173.0	21128.4	22893.6	25345.1	28580.9	20061.2	27813.6	27688.4	27643.4	27623.1	27613.9
o/w public guarantees	Billions LCU	#REF!		1435.7	3580.7	3529.3	1698.9	1649.8	1333.4	1841.3	2412.4	2859.9	4185.0	4630.6	4630.6	4630.6	4630.6	4630.6	4630.6
o/w foreign-currency debt	Billions LCU	#REF!		888.0	1016.7	1373.6	1631.5	2111.5	3478.9	5787.5	7759.2	9022.4	12705.6	13101.8	12794.6	11888.8	10811.4	9612.7	9230.1
o/w public guarantees	Billions LCU	#REF!		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o/w short-term debt at original maturity	Billions LCU	#REF!		1727.9	2122.9	2581.6	2815.5	2772.9	3277.3	3579.8	2736.0	2651.5	2720.4	0.0	0.0	0.0	0.0	0.0	0.0
o/w MLT debt	Billions LCU	#REF!		7451.9	9012.0	12529.5	11781.7	13983.9	18374.6	23336.1	27916.9	31716.0	38566.1	41163.0	40608.2	39577.2	38454.8	37235.8	36844.1
<b>New Debt</b>	Billions LCU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6084.5	26743.7	31547.2	37263.5	41700.1	45360.1
o/w local-currency debt	Billions LCU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3753.9	21892.8	24527.3	27597.4	29852.2	31507.7
o/w foreign-currency debt	Billions LCU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2330.6	4850.9	7019.9	9666.1	11847.9	13852.4
o/w short-term debt at original maturity	Billions LCU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o/w MLT debt	Billions LCU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6084.5	26743.7	31547.2	37263.5	41700.1	45360.1
<b>Total Net Public Debt</b>	Billions LCU	#REF!		9179.8	11135.0	15111.0	14597.2	16756.7	21651.9	26915.9	30652.9	34367.6	41286.5	47247.5	67351.9	71124.4	75718.3	78935.9	82204.2
<b>NOMINAL GROSS FINANCING NEEDS</b>																			
<b>Gross Financing Needs</b>	Billions LCU			1032.626	1740.8	1778.1	1802.9	2543.1	3590.6	6193.8	6236.7	8251.4	9528.6	6336.5	6692.6	6701.3	7603.7	7025.5	6962.5
Primary deficit	Billions LCU		0.0	-2245.6	-1511.6	-1545.5	-1684.3	-1058.5	1028.5	2946.2	2368.3	4267.1	5537.9	2574.8	1769.4	-408.5	-704.3	-2388.7	-2518.7
Interest Receipts	Billions LCU			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest Payments	Billions LCU			1004.1	990.1	1081.1	1227.4	1337.7	1563.9	1882.9	2392.1	2395.0	2432.9	2843.1	4296.7	6078.8	7185.6	7688.3	8051.7
o/w domestic-currency debt	Billions LCU													2312.7	3595.6	5227.5	6159.2	6524.0	6795.0
o/w foreign-currency debt	Billions LCU			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	530.3	701.1	851.3	1026.4	1164.3	1256.7
Amortization Payments	Billions LCU			2274.1	2262.3	2242.4	2259.9	2263.9	998.2	1364.7	1476.4	1589.3	1557.9	918.7	626.6	1031.0	1122.4	1725.9	1429.5
<b>UNDERLYING ASSUMPTIONS</b>																			
<b>Nominal GDP in LCU (current prices)</b>	Billions LCU	#REF!		6142.9	7026.5	7927.2	9434.3	9595.7	12242.5	11378.7	12812.0	14424.8	16131.9	16680.6	19438.0	20115.0	22175.8	24455.1	26975.9
<b>Real GDP (constant prices)</b>	Billions LCU	#REF!		57511.0	59929.9	63218.7	67152.8	69023.9	67931.2	68491.0	69799.9	71387.8	70014.4	71694.7	74705.9	76242.1	78946.1	81567.9	84293.9
<b>Potential GDP (current prices)</b>	Billions LCU	#REF!		60046.4	68530.4	77467.9	86857.1	96756.9	107301.9	118663.9	131013.2	144514.5	159335.5	178216.8	199335.5	222956.7	249377.1	278928.3	311981.3
<b>Potential GDP (constant prices)</b>	Billions LCU	#REF!		56086.7	58763.8	62580.1	66126.4	68990.8	70412.7	70553.5	71591.9	71538.3	73237.5	75782.9	80764.6	84708.0	88771.4	93028.8	97489.3
<b>Output gap</b>	Percent	#REF!		2.54%	1.98%	1.02%	1.55%	-1.24%	-3.52%	-2.92%	-2.50%	-0.21%	-4.40%	-5.39%	-7.50%	-9.78%	-11.07%	-12.32%	-13.54%
<b>Public sector revenues and grants</b>	Billions LCU	#REF!		6714.6	6727.5	7266.6	6959.8	6068.6	5415.2	5678.0	7689.5	8346.8	7383.8	11083.8	13877.2	16641.4	17195.9	20673.7	23727.5
<b>Debt service</b>	Billions LCU	#VALUE!		3278.3	3252.4	3323.6	3487.2	3601.6	2562.1	3247.5	3868.4	3984.4	3990.8	3761.8	4932.2	7109.8	8308.0	9414.2	9481.2
<b>Public sector non-interest revenue</b>	Billions LCU	#REF!		6714.6	6727.5	7266.6	6959.8	6068.6	5415.2	5678.0	7689.5	8346.8	7383.8	11083.8	13877.2	16641.4	17195.9	20673.7	23727.5
<b>Public sector non-interest expenditure</b>	Billions LCU	#REF!		4468.9	5215.9	5721.1	5275.5	5010.1	6443.7	8604.2	10057.8	12613.8	12921.6	13658.5	15646.6	16322.9	16491.6	18285.0	21208.8
<b>Primary balance</b>	Billions LCU		0.0	2245.6	1511.6	1545.5	1684.3	1058.5	-1028.5	-2946.2	-2368.3	-4267.1	-5537.9	-2574.8	-1769.4	408.5	704.3	2388.7	2518.7
<b>Nominal GDP growth</b>	Growth rate (percent)			10.6%	11.8%	19.0%	1.7%	27.4%	-6.9%	12.6%	12.6%	11.8%	4.5%	9.4%	9.1%	10.3%	10.3%	10.3%	
<b>Real GDP growth</b>	Growth rate (percent)			4.2%	5.5%	6.2%	2.8%	-1.6%	0.8%	1.9%	2.3%	-1.9%	2.4%	4.2%	2.3%	3.3%	3.3%	3.3%	
<b>Potential real GDP growth</b>	Growth rate (percent)			4.8%	6.5%	5.7%	5.7%	0.7%	0.2%	1.5%	-0.1%	2.4%	3.5%	6.6%	4.9%	4.8%	4.8%	4.8%	
<b>Inflation</b>	Growth rate (percent)			8.9%	6.1%	6.1%	5.4%	10.1%	10.4%	8.8%	10.4%	7.7%	8.1%	5.0%	6.6%	6.7%	6.7%	6.7%	
<b>Non-interest revenue-to-GDP ratio</b>	% of GDP			10.5%	9.5%	9.2%	7.4%	6.3%	4.4%	5.0%	6.0%	5.8%	4.6%	6.6%	7.5%	8.3%	7.8%	8.5%	8.8%
<b>Non-interest expenditure-to-GDP ratio</b>	% of GDP			7.0%	7.4%	7.2%	5.6%	5.2%	5.3%	7.6%	7.9%	8.7%	8.0%	8.1%	8.5%	8.1%	7.4%	7.5%	7.9%
<b>Primary Balance</b>	% of GDP			3.5%	2.1%	1.9%	1.8%	1.1%	-0.8%	-2.6%	-1.8%	-3.0%	-3.4%	-1.5%	-1.0%	0.2%	0.3%	1.0%	0.9%
<b>Privatization receipts-to-GDP</b>	% of GDP			0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.6%	0.9%	0.8%	0.9%	0.8%
<b>Recognition of implicit contingent liabilities-to-GDP</b>	% of GDP			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Please specify (2) (e.g., other debt flows) (+ increases financing needs)</b>	% of GDP			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.1%	0.0%	0.0%	0.0%	0.0%
<b>Effective interest rate</b>	Ratio (percent)			12.8%	14.3%	10.6%	10.4%	10.4%	9.3%	9.5%	8.5%	7.7%	7.7%	10.1%	9.7%	10.8%	10.8%	10.8%	
Denominated in local currency	Ratio (percent)													9.5%	13.2%	11.6%	12.9%	12.9%	
Denominated in foreign currency	Ratio (percent)			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	4.5%	4.8%	5.4%	5.7%	
<b>Effective real interest rate</b>	Ratio (percent)			3.5%	7.7%	4.2%	4.7%	0.3%	-1.0%	0.7%	-1.7%	0.0%	-0.4%	4.9%	2.9%	3.8%	3.8%	3.8%	
Denominated in local currency	Ratio (percent)													1.3%	7.9%	4.6%	5.8%	5.8%	
Denominated in foreign currency	Ratio (percent)			-8.2%	-5.8%	-5.8%	-5.1%	-9.2%	-9.4%	-8.1%	-9.4%	-7.1%	-3.6%	-0.4%	-1.7%	-1.2%	-1.0%	-0.8%	
<b>Average nominal interest rate, r</b>	Ratio (percent)			12.8%	14.3%	10.6%	10.4%	10.4%	9.3%	9.5%	8.5%	7.7%	7.7%	10.1%	9.7%	10.8%	10.8%	10.8%	
<b>Nominal Exchange Rate -- average (LCU/USD)</b>	LCU/USD			158.3	156.1	156.0	169.7	196.5	304.5	305.5	305.3	307.0	390.0	411.27	411.27	411.27	411.27	411.27	411.27
<b>Nominal Exchange Rate -- end of period (LCU/USD)</b>	LCU/USD			153.8	157.5	157.3	158.6	196.5	253.2	305.8	305.8	306.9	385.0	409.03	411.27	411.27	411.27	411.27	411.27
<b>Nominal exchange rate depreciation</b>	Growth rate (percent)			2.4%	-0.1%	0.8%	23.9%	28.9%	20.8%	0.0%	0.4%	25.4%	6.2%	0.5%	0.0%	0.0%	0.0%	0.0%	
<b>Domestic Deflator -- local currency</b>	Index			107.06	116.62	123.79	131.35	138.44	152.39	168.19	183.00	202.01	217.56	235.17	246.81	263.21	280.92	299.83	320.02
<b>Change in domestic deflator in LCU</b>	Growth rate (percent)			8.9%	6.1%	6.1%	5.4%	10.1%	10.4%	8.8%	10.4%	7.7%	8.1%	5.0%	6.6%	6.7%	6.7%	6.7%	
<b>Domestic Deflator -- USD</b>	Index			0.70	0.74	0.79	0.83	0.70	0.60	0.55	0.60	0.66	0.57	0.57	0.60	0.64	0.68	0.73	0.78
<b>Change in domestic deflator in USD</b>	Growth rate (percent)			6.4%	6.3%	5.3%	-15.0%	-14.6%	-8.6%	8.8%	10.0%	-14.1%	1.7%	4.4%	6.6%	6.7%	6.7%	6.7%	

## Annexure 2: Nigeria's Alternative Scenario, 2011-2026 (Continued)

DEBT BURDEN RATIOS																			
Total public debt-to-GDP	% of GDP		0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	25.6%	28.0%	0.37	0.35	0.34	0.32	0.30
Total public debt-to-Revenue	% of revenue		1.4	1.7	2.1	2.1	2.8	4.0	4.7	4.0	4.1	5.6		4.26	4.85	4.27	4.40	3.82	3.46
Debt service-to-GDP	% of GDP		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.02	0.03	0.04	0.04	0.04	0.04
Debt service-to-Revenue	% of revenue		0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.5	0.5	0.5		0.34	0.35	0.43	0.48	0.46	0.40
Gross financing needs-to-GDP	% of GDP		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1		3.8%	3.6%	3.3%	3.4%	2.9%	2.6%
Gross financing needs-to-revenue	% of revenue		0.2	0.3	0.2	0.3	0.4	0.7	1.1	0.8	1.0	1.3		0.57	0.48	0.40	0.44	0.34	0.29
Total Net Public Debt-to-GDP	% of GDP	#REF!	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3		0.3	0.4	0.4	0.3	0.3	0.3
Total Net Public Debt-to-Revenue	% of revenue	#REF!	1.4	1.7	2.1	2.1	2.8	4.0	4.7	4.0	4.1	5.6		4.3	4.9	4.3	4.4	3.8	3.5
Total Gross Public Debt-to-potential GDP	% of potential GDP	#REF!	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3		0.3	0.3	0.3	0.3	0.3	0.3

SHOCK CALIBRATION STATISTICS																		
		Historical average	St.dev.	Max.	Min.	Coefficient of variation						Projection average	St.dev.	Max.	Min.	Difference in bps (Average)	Difference in bps (Max)	
Real interest rate		2.0%		7.7%									3.1%				-109.53	455.05
Real GDP growth rate		2.2%	2.8%			1.3												
Revenue-to-GDP ratio		6.9%																
Non-interest expenditure-to-GDP ratio		7.0%																
Primary balance		-0.1%	2.5%															

PUBLIC DEBT (% GDP) PROFILE - CHART DATA																				
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Gross public sector debt	% of GDP	#VALUE!	0.0	14.3	15.7	19.1	15.5	17.5	17.7	23.7	23.9	23.8	25.6	28.0	36.5	35.4	34.1	32.3	30.5	
of which: guarantees	% of GDP	...	...	2.2	5.0	4.5	1.8	1.7	1.1	1.6	1.9	2.0	2.6	2.7	2.5	2.3	2.1	1.9	1.7	
Foreign currency-denominated	% of GDP	#REF!	1.4	1.4	1.7	1.7	2.2	2.8	5.1	6.1	6.3	7.9		9.2	9.6	9.4	9.2	8.8	8.6	
Local currency-denominated	% of GDP	#REF!	12.9	14.3	17.3	13.7	15.3	14.9	18.6	17.9	17.6	17.7		18.9	27.0	26.0	24.9	23.5	21.9	
Short-term	% of GDP	#REF!	2.7	3.0	3.3	3.0	2.9	2.7	3.1	2.1	1.8	1.7		0.0	0.0	0.0	0.0	0.0	0.0	
Medium and long-term	% of GDP	#REF!	11.6	12.7	15.8	12.5	14.6	15.0	20.5	21.8	22.0	23.9		28.0	36.5	35.4	34.1	32.3	30.5	
Short-term debt, in percent of total debt	% of total public debt	#REF!	18.8	19.1	17.1	19.3	16.5	15.1	13.3	8.9	7.7	6.6		0.0	0.0	0.0	0.0	0.0	0.0	
Foreign currency-denominated debt, in percent of total debt	% of total public debt	#REF!	9.7	9.1	9.1	11.2	12.6	16.1	21.5	25.3	26.3	30.8		32.7	26.2	26.6	27.0	27.2	28.1	
Gross financing needs	% of GDP		0.0	1.6	2.5	2.2	1.9	2.7	2.9	5.4	4.9	5.9		3.8	3.6	3.3	3.4	2.9	2.6	
Net public sector debt	% of GDP																			
Gross public sector debt	% of potential GDP	#REF!	0.0	15.3	16.2	19.5	16.8	17.3	20.2	22.7	23.4	23.8	25.9		26.5	33.8	31.9	30.4	28.3	26.3

PUBLIC SECTOR DEBT DYNAMICS																	cumulative			
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Change in gross public sector debt	% of GDP	#VALUE!	14.3	1.4	3.4	-3.6	2.0	0.2	5.9	0.3	-0.1	1.8		2.4	8.5	-1.2	-1.2	-1.9	-1.8	4.9
Identified debt-creating flows (4+7+12)	% of GDP			-2.3	-1.6	-2.1	-0.4	1.7	2.8	1.6	2.0	5.4		1.1	8.8	-0.9	-1.0	-1.7	-1.6	4.7
Primary deficit	% of GDP			-2.1	-1.9	-1.8	-1.1	0.8	2.6	1.8	3.0	3.4		1.5	1.0	-0.2	-0.3	-1.0	-0.9	0.1
Primary (noninterest) revenue and grants	% of GDP			9.5	9.2	7.4	6.3	4.4	5.0	6.0	5.8	4.6		6.6	7.5	8.3	7.8	8.5	8.8	47.4
Primary (noninterest) expenditure	% of GDP			7.4	7.2	5.6	5.2	5.3	7.6	7.9	8.7	8.0		8.1	8.5	8.1	7.4	7.5	7.9	47.4
Automatic debt dynamics 2/ (8+11)	% of GDP			-0.1	0.3	-0.3	0.7	0.9	0.2	-0.3	-0.9	2.0		-0.2	0.2	0.2	0.2	0.2	0.2	0.7
Contribution from interest rate/growth differential 3/	% of GDP			-0.1	0.3	-0.4	0.3	0.3	-0.3	-0.3	-0.9	0.5		-0.7	0.2	0.2	0.2	0.2	0.2	0.2
Real interest rate	% of GDP			0.4	1.1	0.7	0.1	-0.2	0.1	-0.5	0.0			-0.1	1.3	1.0	1.2	1.2	1.1	5.7
Real GDP growth	% of GDP			-0.5	-0.8	-1.1	-0.4	0.3	-0.1	-0.4	-0.5	0.4		-0.6	-1.1	-0.8	-1.1	-1.0	-1.0	-5.5
Contribution from exchange rate depreciation 4/	% of GDP			0.0	0.0	0.0	0.4	0.6	0.5	0.0	0.0	1.5		0.5	0.0	0.0	0.0	0.0	0.0	0.5
Other debt-creating flows	% of GDP			-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		-0.1	7.6	-0.9	-0.9	-0.9	-0.8	3.9
Privatization receipts (negative)	% of GDP			-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		-0.1	-0.6	-0.9	-0.8	-0.9	-0.8	-4.2
Recognition of implicit or contingent liabilities	% of GDP			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Please specify (2) (e.g., other debt flows) (+) increases financing n%	% of GDP			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	8.1	0.0	0.0	0.0	0.0	8.1
Residual	% of GDP			3.7	5.0	-1.5	2.4	-1.5	3.1	-1.3	-2.1	-3.6		1.3	-0.3	-0.2	-0.2	-0.2	-0.2	0.2
Denominator = 1+g+p+rgp				1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1	1.1	1.1	1.1	6.6

PUBLIC SECTOR DEBT DYNAMICS - TABLE/CHART DATA																	cumulative				
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		
Change in gross public sector debt	% of GDP		14.3	1.4	3.4	-3.6	2.0	0.2	5.9	0.3	-0.1	1.8		2.4	8.5	-1.2	-1.2	-1.9	-1.8	4.9	
Identified debt-creating flows	% of GDP		0.0	0.0	-2.3	-1.6	-2.1	-0.4	1.7	2.8	1.6	2.0	5.4		0.7	8.7	-0.9	-1.0	-1.7	-1.6	4.2
Primary deficit	% of GDP		0.0	0.0	-2.1	-1.9	-1.8	-1.1	0.8	2.6	1.8	3.0	3.4		1.5	1.0	-0.2	-0.3	-1.0	-0.9	0.1
Primary (noninterest) revenue and grants	% of GDP		0.0	0.0	9.5	9.2	7.4	6.3	4.4	5.0	6.0	5.8	4.6		6.6	7.5	8.3	7.8	8.5	8.8	47.4
Primary (noninterest) expenditure	% of GDP		0.0	0.0	7.4	7.2	5.6	5.2	5.3	7.6	7.9	8.7	8.0		8.1	8.5	8.1	7.4	7.5	7.9	47.4
Automatic debt dynamics	% of GDP		0.0	0.0	-0.1	0.3	-0.3	0.7	0.9	0.2	-0.3	-0.9	2.0		-0.7	0.2	0.2	0.2	0.2	0.2	0.2
Contribution from interest rate/growth differential	% of GDP		0.0	0.0	-0.1	0.3	-0.4	0.3	0.3	-0.3	-0.3	-0.9	0.5		-0.7	0.2	0.2	0.2	0.2	0.2	0.2
Real interest rate	% of GDP		0.0	0.0	0.4	1.1	0.7	0.1	-0.2	0.1	-0.5	0.0		-0.1	1.3	1.0	1.2	1.2	1.1	5.7	
Real GDP growth	% of GDP		0.0	0.0	-0.5	-0.8	-1.1	-0.4	0.3	-0.1	-0.4	-0.5	0.4		-0.6	-1.1	-0.8	-1.1	-1.0	-1.0	-5.5
Exchange rate depreciation	% of GDP		0.0	0.0	0.0	0.0	0.4	0.6	0.5	0.0	0.0	1.5		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	...
Other debt-creating flows	% of GDP		0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0		-0.1	7.6	-0.9	-0.9	-0.9	-0.8	3.9	
Privatization receipts (negative)	% of GDP		0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0		-0.1	-0.6	-0.9	-0.8	-0.9	-0.8	-4.2	
Recognition of implicit or contingent liabilities	% of GDP		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2) (e.g., other debt flows) (+) increases financing n%	% of GDP		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	8.1	0.0	0.0	0.0	0.0	8.1	
Residual 5/	% of GDP		0.0	0.0	3.7	5.0	-1.5	2.4	-1.5	3.1	-1.3	-2.1	-3.6		1.7	-0.2	-0.2	-0.2	-0.2	-0.2	0.7

## THE MAC-DSA TECHNICAL TEAM

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