DEBT MANAGEMENT OFFICE
NIGERIA

2013

REPORT OF THE ANNUAL NATIONAL DEBT SUSTAINABILITY ANALYSIS (DSA)

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1. INTRODUCTION

The 2013 National Debt Sustainability Analysis (DSA) Workshop was organized by the Debt Management Office (DMO) from May 8-19, 2013, in collaboration with relevant stakeholders, namely: the Federal Ministry of Finance (FMF), Central Bank of Nigeria (CBN), National Planning Commission (NPC), Budget Office of the Federation (BOF), National Bureau of Statistics (NBS) and the Office of the Accountant-General of the Federation (OAGF). The West African Institute for Financial and Economic Management (WAIFEM) provided technical support. This is in keeping with one of the requirements of sound public debt management practices, which ensures that the nation's debt portfolio is, on an annual basis, subjected to appropriate qualitative and quantitative analysis. The primary purpose is to assess the capacity of the country to meet its current and future debt obligations as and when due without recourse to exceptional financing and without compromising growth and development.

Compared to the 2012 DSA, the 2013 DSA exercise had more robust data coverage due to the inclusions of the comprehensive domestic debt data of the States and the Federal Capital Territory (FCT), contingent liabilities of the Federal Government of Nigeria (FGN), and private sector external debts in the analysis. In addition, following the approval of Nigeria's Medium-Term Debt Management Strategy (MTDS), 2012-2015, by the Federal Executive Council (FEC), the 2013 DSA has adopted the nation's debt management strategy, which seeks to achieve an optimal mix in the debt portfolio and reduce overall cost of government borrowing.

2. POLICY OBJECTIVES

The key policy objectives of the DSA exercise include to:

i. analyse the current and future debt portfolio with a view to assessing its debt sustainability, detecting any potential risks and advising on mitigating measures;

ii. provide guidance to the Government in its borrowing decisions in order to ensure that financing needs and future repayment ability are taken into account;

iii. set borrowing limits for 2014 and advise on funding options; and,

iv. provide inputs into the national budget and information necessary for the updating of the Medium-Term Expenditure Framework (MTEF).

3. METHODOLOGY AND SCOPE

The 2013 DSA was conducted using the latest version of the joint World Bank/IMF Debt Sustainability Framework for Low Income Countries (DSF-LICs) analytical tool. The tool is a standardised framework for conducting total public and external debt sustainability analyses under different scenarios - Baseline, Optimistic and Pessimistic – using historical, current and future debt and other macroeconomic data. The basic data were projected for 20 years under varying assumptions. The results obtained were analysed against internationally established debt burden indicators, which measure the solvency and liquidity positions of the country: NPV of Debt/GDP, NPV of Debt/Revenue, NPV of Debt/Exports, Debt Service/Revenue and Debt Service/Exports.

The scope of analysis covers domestic and external debts of the Federal and State Governments, including the FCT. The data series also include Federally Collectible Revenue, States' and FCT's Internally Generated Revenue (IGR) and expenditure. For the first time, the analysis captured the actual private sector external debts and contingent liabilities of the Federal Government. These were inputted into the analytical tool along with relevant macroeconomic indicators and variables from the four sectors of the economy – real, fiscal, monetary and external.

4. BASIC ASSUMPTIONS

a) **The Baseline Scenario** maintains the assumptions of the 2013 national budget and MTEF, which includes stable macroeconomic environment occasioned by the on-going fiscal consolidation and tight monetary policy stance of the monetary authorities, as well as, the continuation of reforms in the key sectors of the economy: agriculture, power, oil and gas, transport, housing, solid minerals, etc. It also captures the medium-term (2012-2014) external borrowing plan of US$9.65 billion approved by the National Assembly for the Federation.

b) **The Optimistic Scenario** is hinged on the successful implementation of the present administration's Transformation Agenda, which is expected to produce robust growth in the medium to long-term.

c) **The Pessimistic Scenario** is revenue specific because of the peculiar revenue structure of the country, which is mainly dependent on crude oil. It assumes a persistent shock in the price of crude oil to a low level of US$50pb and also reduced oil output throughout the projection period.

5. RESULT ANALYSIS

a) Baseline Scenario

The solvency and liquidity indicators under the Baseline Scenario show that Nigeria is at a very low risk of debt distress. For instance, under the Baseline Scenario for FGN, State Governments and FCT combined, the NPV of Total Public Debt/GDP is projected at 25.30 percent in 2013, as against the indicative threshold of 56 percent. This is consistent with the result of the 2012 DSA. With regard to only the FGN, that is, FGN's domestic debt plus the external debt of the Federation, the results also show that the FGN is at a low risk of debt distress. The PV of Total Debt/GDP and Total External Debt/GDP was 22.4 and 3.2 percent, respectively. The summaries of the DSA results with respect to external debt sustainability of the Federation, FGN's public debt sustainability and that of the consolidated total public debt of the Federation are shown in Tables 1, 2 and 3, respectively.

It is important to state that, whereas, there are three outputs under the fiscal block – PV of Debt/GDP, PV of Debt/Revenue and Debt Service/Revenue ratios – only the PV of Debt/GDP ratio has an internationally established threshold of 56 percent for Nigeria's peer group. In other words, there are no international thresholds for PV of Debt/Revenue and Debt Service/Revenue ratios with which they could be measured or compared.

Table 1: External Debt Sustainability Indicators in Percent

Descriptions		Threshold	2013	2014	2015	2016	2017	2018-2024 (Average)	2025-2032 (Average)
Solvency Indicators	PV of Debt/GDP	40	3.2	3.8	4.3	4.7	4.9	5.0	3.2
	PV of Debt/Exports	150	8.9	11.0	12.8	14.4	15.6	19.1	16.6
	PV of Debt/Revenue	250	34.6	30.8	38.0	45.4	50.0	56.7	63.3
Liquidity Indicators	Debt Service/Exports	20	0.5	0.4	0.6	0.6	0.7	1.1	1.5
	Debt Service/Revenue	20	1.9	1.2	1.7	2.0	2.2	3.2	5.9

Table 2: FGN's Public Debt* Sustainability Indicators in Percent

Description	Threshold	2013	2014	2015	2016	2017	2018-2024 (Average)	2025-2032 (Average)
PV of Debt/GDP	56	22.4	18.4	17.2	16.7	15.4	11.7	5.7
PV of Debt/Revenue	n/a	240.6	148.2	152.9	162.6	158.4	132.7	110.1
Debt Service/Revenue	n/a	34.2	24.1	26.7	21.6	27.7	19.2	15.1

* External Debt of the Federation plus FGN's Domestic Debt.

Table 3: Total Public Debt* Debt Sustainability Indicators in Percent

Description	Threshold	2013	2014	2015	2016	2017	2018-2024 (Average)	2025-2032 (Average)
PV of Debt/GDP	56	25.3	20.8	18.9	17.8	16.0	12.5	7.2
PV of Debt/Revenue	n/a	137.0	124.3	124.7	122.7	120.9	106.9	73.9
Debt Service/Revenue	n/a	22.8	24.1	26.1	22.1	27.8	18.4	14.8

*External Debt of the Federation plus the Domestic Debt of the FGN, States & FCT.

Furthermore, while the Baseline Scenario considered the entire debt of the Federation (external and domestic debt of the FGN, States and the FCT) as illustrated in Table 3, the Optimistic and Pessimistic Scenarios focused only on the domestic and external debt of the FGN, without the States' debt data. This was based on the need to avoid making generalised assumptions across board, with respect to States' and FCT's Internally Generated Revenue (IGR) and expenditure profiles under the two Scenarios.

Standard Stress Test under the Baseline Scenario

The results of the Baseline Scenario were further re-examined under an alternative scenario, where the key variables - real GDP growth rate, primary balance, export growth and non-debt creating flows – were kept at their 10-year historical averages, minus one standard deviation, relative to the baseline and shocked at one-time 30 percent nominal depreciation. It also assumes that new debts would be contracted under less favourable terms. The results obtained under this standard stress tests are illustrated in Figure 1(a-f). Figure 1(a) shows that the rate of debt accumulation rose marginally in 2014, but declined gradually before rising again in 2018. Thereafter, it trended downward to near zero towards the end of the projection period. It further shows the declining trends of grant-equivalent financing (as a percent of the GDP) and the grant element of new borrowing based on the assumption of Nigeria's reduced access to grants as a result of graduation to blend status and projected increase in issuance of Eurobonds in the international capital market.

In Figure 1(b-d), the stress test results show the most extreme shocks remaining above the baseline for all the solvency indicators, but well below the thresholds. With respect to the liquidity indicators, while Figure 1(e) maintained similar trend with the solvency indicators, Figure 1(f) shows some degree of unevenness (so also Figure 1d) due to volatility in the revenue profile of the country. Specifically, the ratio of Debt Service/Revenue almost reached the threshold towards the end of the projection period, indicating that the country needs to find a long-term solution to its dependence on one major source of revenue.

Figure 2(a-c) illustrates the result of the sensitivity analysis in the fiscal block, that is, the debt sustainability of the FGN. Figure 2(a) shows a smooth downward slopping PV of Debt/GDP ratio, which is well below the standard threshold of 56 percent and recommended Nigeria's policy threshold of 40 percent. Although, the PV of Debt/Revenue and Debt Service/Revenue indicators (Figures 2b and 2c) trended downward towards the end of the projection period, they show signs of stress, indicating susceptibility to revenue shock.

b) Optimistic Scenario

All the debt burden indicators (solvency and liquidity) under the Optimistic Scenario are far below the established thresholds. With regard to external debt sustainability, the PV of Debt/GDP ratio remained below 5 percent throughout the projection period indicating a very healthy outlook (Table 4). Similarly, the PV of Debt/Revenue, though rose gradually from 20.1 percent to an average of 51.1 percent in 2018-2024, it still indicates a high degree of sustainability compared to the threshold of 250 percent. In the fiscal block and compared to the threshold of 56 percent, the PV of Debt/GDP ratio dropped from its highest value of 22.3 percent in 2013, to an average of 5.3 percent in 2025-2032 (Table 5). The PV of Debt/Revenue and Debt Service/Revenue ratios, against which there are no international thresholds, fluctuated initially before trending downward to a low average of 91.8 and 12.1 percent in 2025-2032, respectively. Impliedly, the successful implementation of the key aspects of the Transformation Agenda will have positive impact on Nigeria's debt sustainability during the projection period, *ceteris paribus*.

Table 4: External Debt Sustainability Indicators in Percent

Descriptions		Threshold	2013	2014	2015	2016	2017	2018-2024 (Average)	2025-2032 (Average)
Solvency Indicators	PV of Debt/GDP	40	3.2	3.8	4.3	4.6	4.8	4.8	3.0
	PV of Debt/Exports	150	9.1	11.3	14.8	15.9	17.7	18.7	15.2
	PV of Debt/Revenue	250	20.1	28.2	33.1	39.3	43.7	51.1	53.5
Liquidity Indicators	Debt Service/Exports	20	0.5	0.4	0.6	0.7	0.8	1.0	1.3
	Debt Service/Revenue	20	1.1	1.1	1.4	1.7	1.9	2.8	4.7

Table 5: FGN's Public Debt* Sustainability Indicators in Percent

Description	Threshold	2013	2014	2015	2016	2017	2018-2024 (Average)	2025-2032 (Average)
PV of Debt/GDP	56	22.3	18.2	16.9	16.4	15.0	11.1	5.3
PV of Debt/Revenue	n/a	138.5	134.3	131.2	138.8	137.4	117.0	91.8
Debt Service/Revenue	n/a	19.5	21.8	22.8	18.3	23.9	16.7	12.1

* External Debt of the Federation plus FGN's Domestic Debt.

c) Pessimistic Scenario

However, under the Pessimistic Scenario or customized stress test, which simulates a persistent crude oil price shock and reduced output, all revenue indicators deteriorated when compared to the baseline results. **The customized scenario also show that without significant compensating revenue sources, a prolonged crude oil price shock, that is, a fall in price to a low level of US$50pb, or prolonged deterioration in the**

current account balance could undermine debt sustainability and macroeconomic stability. The analysis is further strengthened by the fact that the DSA considered both the domestic and external debt of the Federal and State Governments, the contingent liabilities of the FGN, as well as, private sector external debt. The results of the Pessimistic Scenario under the external debt of the Federation and public debt of the FGN are shown in Tables 6 and 7, respectively.

Table 6: External Debt Sustainability Indicators in Percent

Descriptions		Threshold	2013	2014	2015	2016	2017	2018-2024 (Average)	2025-2032 (Average)
Solvency Indicators	PV of Debt/GDP	40	3.3	5.1	7.6	10.1	12.3	17.7	18.5
	PV of Debt/Exports	150	10.6	16.8	26.0	35.5	45.5	83.5	121.0
	PV of Debt/Revenue	250	34.7	64.5	114.5	209.4	273.0	365.4	380.9
Liquidity Indicators	Debt Service/Exports	20	0.6	0.6	0.9	1.2	1.6	3.8	9.2
	Debt Service/Revenue	20	2.0	2.2	4.0	7.3	9.5	16.3	28.8

Table 7: FGN's Public Debt Sustainability Indicators in Percent

Description	Threshold	2013	2014	2015	2016	2017	2018-2024 (Average)	2025-2032 (Average)
PV of Debt/GDP	56	22.8	20.7	22.5	25.0	26.7	30.6	26.0
PV of Debt/Revenue	n/a	239.1	262.8	338.1	520.4	591.8	630.6	529.5
Debt Service/Revenue	n/a	34.3	40.2	50.8	57.5	78.8	72.8	59.7

* External Debt of the Federation plus FGN's Domestic Debt.

6. POLICY RECOMMENDATIONS

The key policy recommendations of the 2013 DSA exercise are as follows:

i. Efforts aimed at ensuring that all new borrowings (external and domestic) are project-tied should be sustained and such projects should have significant multiplier effects that would provide long-term benefits for the economy.

ii. As a way of reducing public sector expenditure and the rate of debt accumulation, Government should sustain the policy measures aimed at incentivising the private sector to lead investments in the critical sectors of the economy, and development of infrastructure.

iii. The current policy thrust of using Sinking Fund as a means of redeeming maturing obligations, which was introduced in 2012 should be sustained going forward. Meanwhile, the authorities should also consider increasing the amount being set aside, in view of the quantum of maturing obligations (FGN Bonds and Eurobonds), which require bullet redemption in the near to medium term.

iv. The current debt management strategy of gradually reducing domestic debt accumulation in favour of relatively less expensive external debt, so as to allow for more borrowing space for the private sector in the domestic debt market, reduce the overall cost of borrowing and attain an optimal mix between external and domestic debt in the portfolio should be effectively implemented.

v. Now that the country has a reliable baseline debt data for the States and the FCT as at December, 2011, there is need to fine-tune and stabilise the process of updating the records in order to have a sustained comprehensive and reliable debt data for the conduct of the DSA, going forward.

vi. Although the country now has increased borrowing space due to the latest international benchmarks, Nigeria should still maintain the conservative stance of benchmarking the NPV of Total Public Debt/GDP (Federal and States) relative to 40 percent, as against the new threshold of 56 percent. This would take into account the need to significantly operate below the standard threshold because of the peculiar structure of the country's GDP with its reliance on one major source of revenue.

vii. As a long-term solution to the adverse effects of possible revenue shocks, current efforts aimed at increasing collectible revenue from existing sources and diversifying the revenue base through the acceleration of the growth of the non-oil sector in the medium to long-term, should be intensified.

viii. Given that in the foreseeable future, oil will still remain the bedrock of the country's economy in terms of revenue, it is imperative that the on-going reforms in the oil and gas sector, especially, the much awaited passage of the Petroleum Industry Bill (PIB), which is expected to open up the space for private investments in the sector be successfully carried through.

ix. On-going efforts at engendering effective management of Government's cash balances and the reduction of recurrent expenditure, such as the commencement of

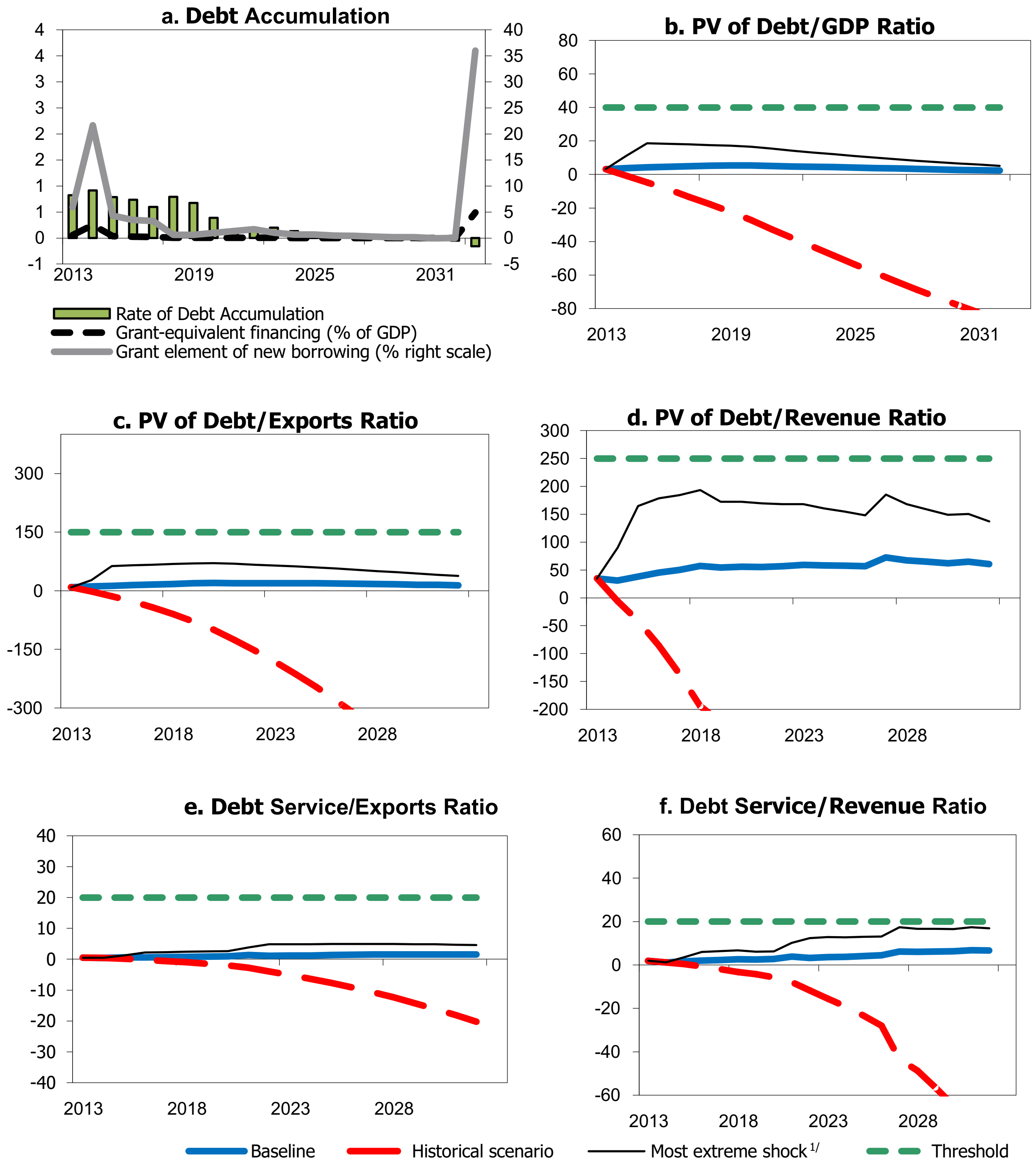
Treasury Single Account (TSA), full implementation of the Integrated Payroll and Personnel Information System (IPPIS) and rationalization of Government Ministries, Departments and Agencies (MDAs) should be vigorously pursued.

x. In addition, there is need for the Government to speed up the integration of MDAs' financial processes using the Government Integrated Financial Management Information System (GIFMIS), which became operational in April 2012, to enhance timely reporting, transparency and accountability.

7. CONCLUSION

The outcome of the 2013 DSA, has further buttressed the robustness and resilience of the Nigerian economy, as it exhibits low debt distress over the projection period of twenty years, if the current initiatives and reforms of the present administration in the key sectors of the economy are sustained. It is important, however, to recognise that a combination of adverse shocks on the revenue given the considerable funding requirements for accelerated growth could cause the debt ratios to weaken in the long-term. Therefore, other initiatives and reforms in the various sectors aimed at diversifying the revenue base should be given utmost priority.

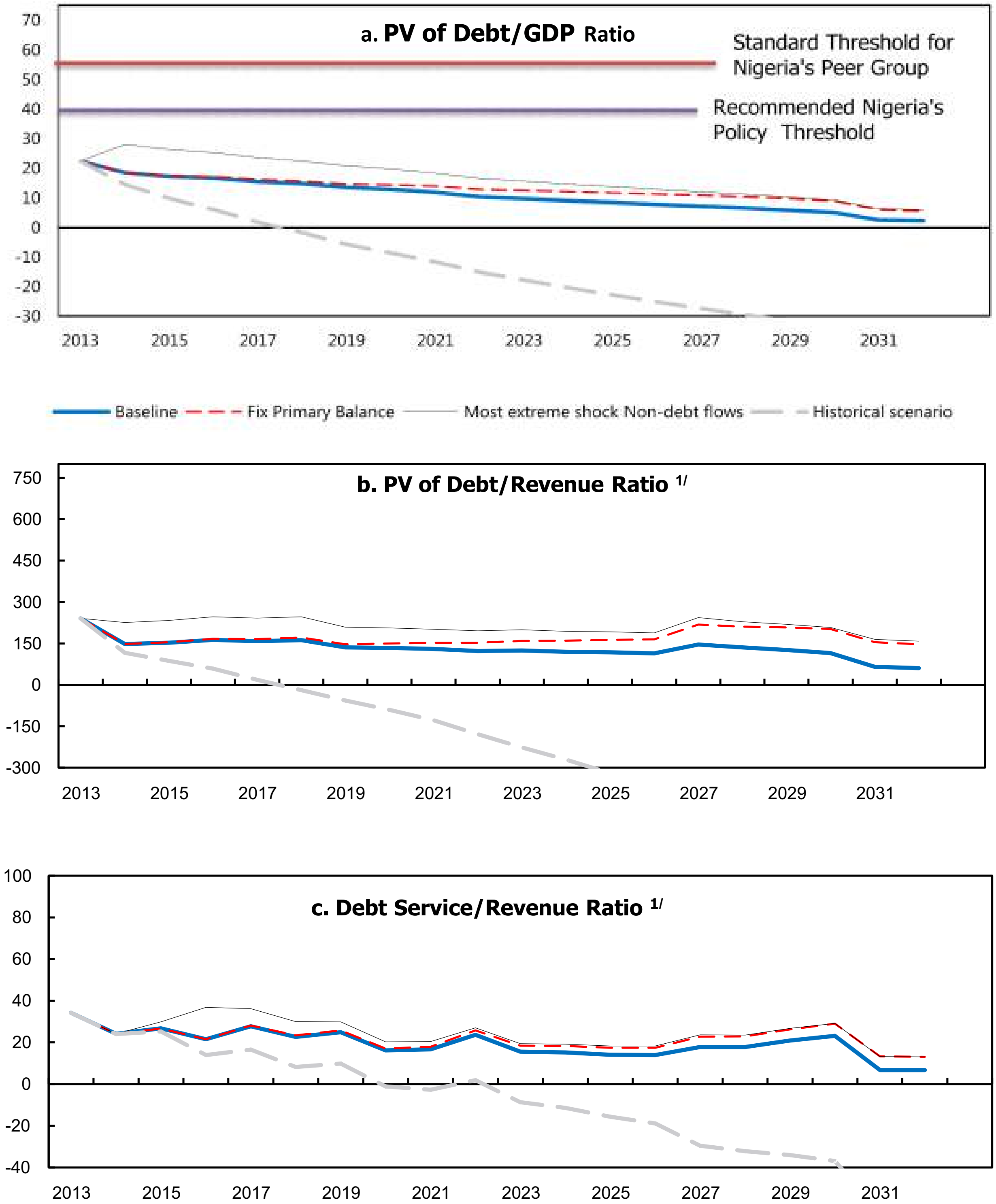
Figure 1: Nigeria's External Debt Sustainability Indicators under Alternative Scenarios, 2013-2032



Sources: DSA Technical Team estimates and projections.

Note: The historical lines trend downward because the further the variables and their estimates are from the 10-year historical average, the higher the negative variance.

Figure 2: FGN's Public Debt Sustainability Indicators under Alternative Scenarios, 2013-2032



Sources: DSA Technical Team estimates and projections.

[1/] Revenues are defined to include grants.

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