INTERNATIONAL MONETARY FUND

NIGER

SIXTH AND SEVENTH REVIEWS UNDER THE EXTENDED CREDIT FACILITY ARRANGEMENT, REQUEST FOR WAIVERS OF NONOBSERVANCE OF PERFORMANCE CRITERIA, REQUEST FOR AUGMENTATION OF ACCESS, AND EXTENSION OF THE CURRENT ARRANGEMENT—DEBT SUSTAINABILITY ANALYSIS UPDATE

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The previous Debt Sustainability Analysis was conducted in December 2014. Niger risk of debt distress continues to be assessed as moderate. However, the debt situation is vulnerable to an export shock, FDI shortfalls, less favorable financing conditions, a large depreciation of the exchange rate, and a lack of fiscal consolidation. The medium–term economic framework underpinning the analysis has been updated to reflect recent developments, including the impact of the further deterioration of the security situation and the lower oil price path, consistent with the baseline scenario of the staff report for the Sixth and Seventh reviews of the Arrangement under the Extended Credit Facility. The medium term outlook remains dominated by two large natural resource projects that are expected to come on stream in late 2017 (oil exporting) and 2020 (uranium).

BACKGROUND

1. **This debt sustainability analysis (DSA) updates the DSA of the external and total public debt of Niger completed at the time of the 2014 Article IV Consultation and the Fourth and Fifth reviews under the ECF**. It is based on end–2014 data, using the standard debt dynamics template for low–income countries. The debt data cover external and domestic debt of the central government, debt of public enterprises and parastatals, state guarantees and private external debts. Domestic debt includes government arrears, debt to the regional central bank, *Banque Centrale des Etats de l'Afrique de l'Ouest* (BCEAO), resulting from statutory advances, the Niger's special drawing rights (SDR) allocation, and government issued securities.

2. **The previous DSA assessed Niger's risk of debt distress to be at a moderate level, largely on account of the government's debt contracts to support the development of the natural resource sector**. Niger reached the completion point under the Enhanced Highly Indebted Poor Country (HIPC) Initiative in April 2004 and in 2006 it benefited from the Multilateral Debt Relieve Initiative (MDRI) assistance from the African Development Fund (ADF), International Development Association (IDA), and the International Monetary Fund (IMF). The debt relief contributed to a reduction of nominal external debt from around 90 percent of GDP at end–2000 to 17 percent of GDP at end–2010. Niger's public external debt exposure has increased significantly after 2010, up to 22.6 percent of GDP at end–2013 and is projected to reach 33 percent of GDP at end–2015, due to the government's involvement in the financing of natural resource projects.[1] The *Société de Raffinage de Zinder* (SORAZ) refinancing loan of CFAF 437.4 billion from Exim–Bank–China is reflected in this updated DSA in 2016 which will bring the debt ratio to GDP to 41.6 percent in that year.

3. **Niger is a medium policy performer for the purpose of determining the debt burden thresholds under the DSA framework.** Niger's rating on the World Bank's Country Policy and Institutional Assessment (CPIA) averaged 3.45 during 2012–14, making it a medium policy performer. Therefore the external public debt burden thresholds are as shown below.

Text Table 1. External Debt Burden Thresholds

EXTERNAL debt burden thresholds	Without remittances
PV of debt in % of	
Exports	150
GDP	40
Revenue	250
Debt service in % of	
Exports	20
Revenue	20

[1] In 2011, the government contracted a Yuan 650 million loan for the financing of its share in the construction of the new Azelik uranium mine, followed by a state guarantee of 40 percent of a US$880 million loan to the SORAZ refinery.

UNDERLYING DSA ASSUMPTIONS

4. **Staff has updated the medium– and long–term projections for Niger to account for the lower oil price path and the impact of the further deterioration of the regional security situation**. Revenue projections have been revised downward to reflect lower oil prices and weaker than programmed revenue collection in 2014. Revenue is expected to increase significantly after 2017 when the new crude oil export project will come on stream and later in 2020 when a major project in the uranium sector will be completed. The increased revenues will enable the government to maintain a lower but high level of public investment with a positive basic fiscal balance; while current expenditures should increase in 2015, it will be gradually contained after 2016.[2] The average GDP growth is revised upward in 2013 and 2014 and downward in the medium term, but remains almost the same in the long term compared to the last DSA. This DSA update assumes conservative growth in exports of goods and services compared to the previous DSA to reflect the low oil prices, a more gradual crude oil export increase after 2017, and lower uranium production in the medium and long term, resulting in a lower ratio of exports to GDP throughout the medium term. Public investments in agriculture and infrastructure are expected to help promote export–oriented growth and efficiency gains in the long run.

5. **The further deterioration of the security situation in Niger has created a financing gap in the 2015 budget that is envisaged to be filled through a proposed ECF augmentation and additional donor support**. The baseline scenario includes lower revenues, additional spending, and more domestic financing in 2015, to accommodate the worsening of the security situation in Niger. The resulting financing gap could be financed by the following additional donors' support: (i) CFAF 19.7 billion budgetary grant from EU; (ii) CFAF 6.5 billion budgetary grant and CFAF 13.1 billion budgetary loan from France and AFD, (iii) CFAF 13.4 billion of budgetary grant from Nigeria[3], and (iv) there will be an ECF access augmentation, up to 25 percent of quota, requested by the authorities to support the BOP needs created by these shocks. The DSA takes into account these potential additional financing sources in 2015 and also a 37.5 percent of quota IMF financing during 2016 from the proposed one–year extension of the current arrangement under the ECF.

6. **Reliance on external grants and loans to finance the current account deficit is projected to decline gradually as natural resource revenues increase**. Besides debt–creating

[2] This expenditure rationalization objective requires stepping up efforts in the reform of public financial management (PFM) as suggested in the latest PEFA assessment (March 2013) and in IMF technical assistance reports. The authorities approved the law on fiscal transparency in March 2014 and approved recently a series of decrees aimed at strengthening institutional coordination by merging the Ministry of Finance and the Ministry of Planning and enhancing the profile and the role of the Inter–Ministerial Committee on Debt Management to improve the flow of information on debt management, and to enhance expenditure monitoring. The ECF program also envisages improvement in expenditure controls by limiting resort to the use of exceptional procedures for authorizing spending, accelerating the pace of budget execution, and speeding up the implementation of the TSA and the investment budgeting in commitment authorization and payment credit in line with the approved 2012 organic law on budget laws.

[3] The Government of Nigeria provided CFAF 20.4 billion budgetary grant to Niger, for which CFAF 7 billion was projected in the initial 2015 budget.

flows and FDI, the current account deficit is expected to be financed by significant flows of project grants and private capital flows.

Text Table 2. Niger: Key Macroeconomic Assumptions
(DSA 2014 vs. DSA 2015 (updated 2014 DSA))[1]

	2013-14	2015-18	2019-35
Real GDP growth (percent)			
DSA 2015	5.7	6.0	5.4
DSA 2014	5.3	6.5	5.3
Total Revenue (percent of GDP)[2]			
DSA 2015	17.5	19.2	21.5
DSA 2014	18.1	20.6	22.1
Exports of goods and services (percent of GDP)			
DSA 2015	21.6	20.3	24.5
DSA 2014	23.0	24.2	30.5

Sources: Nigerien authorities; and IMF staff estimate.
[1] See Box 1 for details on baseline scenario assumptions. the DSA 2014 forecasting peric stops in 2034.
[2] Total revenue, excluding grants.

7. **The macroeconomic outlook remains subject to various risks**. The country remains vulnerable to exogenous shocks, including frequent weather–related shocks on economic activity and on food security, and fluctuations in commodity prices. The recent decline of oil prices and the continued weakness of uranium prices may introduce delays in the implementation of the natural resource sector projects. The deteriorating security situation in the region (Mali and Libya in the north and Nigeria in the south) is another source of fiscal costs and economic vulnerability to Niger.

EXTERNAL DSA

8. **Niger's debt exposure has increased significantly since 2009 as a result of government involvement in the financing of projects in the natural resource sectors**. The increase in the debt ratio from 22.6 percent in 2013 to 33 percent of GDP in 2015 is mainly due to external loans contracted to finance infrastructure investments and social needs. The refinancing loan for the construction of the SORAZ refinery (in an amount of CFAF 437.4 billion), expected to be disbursed in 2014 has not yet materialized. In this update, we assume that the authorities will continue to seek for the replacement of the existing private non–concessional funding of the refinery (which was 40 percent guaranteed by the State) by one on concessional terms. The rate of external public debt accumulation is expected to rise in the medium term reflecting the government's investments in the natural resource sector before declining in the long run (Figure 1).

9. **In the baseline scenario, apart from a temporary deviation of the debt service ratios,[4] external debt ratios remain below their policy–dependent thresholds throughout the**

[4] The surge in the Public and the Publicly Guaranteed (PPG) debt service ratios in 2016 stems from repayment of the 40 percent government guaranteed debt for the construction of the SORAZ refinery, assuming its refinancing with a loan on concessional terms (¶ 8 above).

projection period (2015–35). The present values (PV) of debt–to–GDP, debt–to–exports and debt–to–revenue ratios are expected to remain at levels below the relevant thresholds over the medium term.[5] As in the previous DSA, upon the approval of the refinancing loan for the SORAZ refinery, there would be a one–off spike in the debt service ratios and an increase of the stock of public debt ratios in 2016. The debt service indicators remain well below their thresholds for the entire projection period except for 2016. The stress test under the historical scenario shows rising debt ratios in the medium term with a temporary breach of the debt–to–exports ratio in 2017 before becoming sustainable and stable thereafter (Figure 1).

10. **The baseline scenario also assumes that the US$1 billion credit line from EximBank of China[6] will be disbursed progressively over the period of 2018–25**.The baseline scenario assumes US$50 million of the Chinese master facility is disbursed in 2018, US$100 million in 2019 and the same amount in 2020, and the remaining US$750 million are assumed to be equally disbursed in the following years.

11. **Under the most extreme shock scenario, the present value (PV) of debt–to–exports and PV of debt–to–GDP ratios breach the relevant thresholds, however the ratio of the PV of debt–to–revenue remains under the threshold** (Figure 1).The most extreme stress test assumes lower levels of export values that grow at the historical average minus one standard deviation in 2016 and 2017, which results in higher debt indicators relative to the baseline yielding a PV of debt–to–exports ratio higher than the threshold. However, in this scenario, the debt burden indicators are expected to stabilize at sustainable levels over the very long term. In addition, the PV of debt–to–exports ratio breaches the threshold under a financing terms shock that sets the new public loans for the period 2015–35 at less favorable terms and under a non debt creating flows (FDI) shock that assumed the level of FDI in 2016–17 to be at the historical level minus one standard deviation. Although a one–time 30 percent nominal depreciation of the exchange rate relative to the baseline in 2016 does not deteriorate the PV of debt–to–exports ratio, the PV of the debt–to–GDP ratio breaches the threshold between 2022 and 2030.

PUBLIC DSA

12. **Increased reliance on bond financing from the regional market, has resulted in a higher domestic debt stock**. Niger's domestic debt was at a low level (4.6 percent of GDP at end–2013, see Table 1b) which increased to 8.8 percent of GDP at end–2014, and is projected to reach 10.2 percent at end 2015. This increase is driven by the issuance of regional bonds in the

[5] See IMF (2013) "Staff Guidance Note on the Application of the Joint Bank–Fund Debt Sustainability Framework" for details on relevant debt thresholds and benchmarks.

[6] This line of credit, considered as a facility in total of US$1 billion, was signed in September 2013 and several loan agreements could be negotiated under the facility between the governments of Niger and China. Under the master facility agreement, individual loans are subject to 2 percent interest rate, 25 years maturity, and 5 years grace period. Any contracts under the facility are tied to Chinese suppliers and are earmarked for infrastructure projects with high economic rates of return. Any potential projects need the preliminary approval of Eximbank of China about their eligibility.

amount of CFAF 93.3 billion in 2014 and CFAF 120 billion in 2015.[7] There was also a net accumulation of domestic arrears of 1.5 percent of GDP at end–2014, but most of it was paid by end–June 2015. The government intends to securitize the remaining balance of about CFAF 40 billion at end–2015. The baseline scenario assumes that the authorities continue to cover fiscal financing needs through the issuance of government securities on similar terms as the 2015 regional bonds, but with lower amounts issued annually as fiscal consolidation occurs and as revenues from the resource sectors materialize after 2017. Consequently, domestic public debt is projected to fall over the medium term, reaching 2.6 percent of GDP in 2035.

13. **Public debt ratios breach the relevant thresholds under the fixed primary balance scenario.** Under the extreme shock scenario with no improvement in the fiscal situation, the primary fiscal balance remains at the 2015 level of a deficit of 6.5 percent of GDP, there will be continued accumulation of public debt. Consequently, the PV of debt–to–GDP ratio would reach 77 percent in 2035 significantly above the policy–dependent threshold level of 56 percent (Figure 2, Table 2b). The PV of public debt–to–GDP and the PV of public debt–to–revenue ratio will stabilize to sustainable levels under the baseline and other stress tests. When the permanently lower GDP growth shock is assumed, the PV of debt–to–GDP will reach a maximum of 48.5 percent in 2026 staying well below the threshold.

PRIVATE EXTERNAL DEBT DYNAMICS

14. **The current DSA includes identified private debt flows, linked to the large oil and uranium projects**. It incorporates the contracts of a loan by the SORAZ refinery (60 percent privately owned), part of the FDI that will finance the rail road Niamey–Cotonou, and the Imouraren uranium project. The stock of external private debt is estimated at 28 percent of GDP in 2014 and is projected to stabilize at just above 20 percent over the long run.[8]

CONCLUSION

15. **Niger remains subject to a moderate risk of debt distress**. In comparison with the previous DSA, the recent exogenous terms of trade and security shocks' impacts will lower fiscal revenue and export receipts leading to a deterioration in fiscal and external balances and more borrowing in the short term, including from the IMF. In the baseline scenario, the external and public debt indicators remain below their policy–dependent thresholds throughout the projection period. However, the expected refinancing loan to the SORAZ refinery, individual loans to be contracted

[7] The terms of the regional bonds are a 6.25 percent interest rate, 5 years maturity and 1 year grace period. In 2014, CFAF 93.3 billion was issued, of which CFAF 19 billion was taken up by domestic banks and CFAF 74.3 billion was by banks in the West African Economic and Monetary Union (WAEMU) and in 2015 CFAF 120 billion of regional bonds was issued (CFAF 18 billion bought by local banks). The authorities intend to issue less new regional bonds (CFAF 110 billion in 2016, followed by continuous issuance of bonds over the medium term to diversify the financing sources) that are also captured in the baseline scenario.

[8] The baseline scenario assumes that some of the direct and portfolio investments will come in the form of debt to the private sector, which will represent 20.7 percent of GDP in 2035.

under the Chinese master facility, and the uptick in borrowing from the regional market would increase the public debt stock. Consequently, the PV of debt–to–exports ratio could breach the threshold level under certain alternative scenarios. The country's level of external debt keeps Niger vulnerable to adverse shocks on exports, on the terms of new loans, on FDI inflows, and to some extent to a large depreciation of the exchange rate as demonstrated by the deterioration of the debt indicators as described previously.

16. **Niger's continued moderate risk of debt distress calls for the authorities' continued commitment to strengthen debt management**. The new Inter–Ministerial Debt Committee, which is operating under the framework set by the decree signed by the Prime Minister on June 18, 2015, must play an active role in preventing the recurrence of non–concessional borrowing and in limiting the accumulation of external and public debt to maintain fiscal and debt sustainability. Any loans contracted under the Chinese master facility agreement should be used for high–yield infrastructure projects that will generate sufficient government revenue to cover debt service related to the projects. Over the medium term, the authorities also need to build buffers to cope with exogenous shocks, and strengthen revenue administration and expenditure prioritization to align with short–term and long–term spending needs.

17. **The Nigerien authorities have indicated their agreement with the conclusions reached in this DSA update that is consistent with the 2014 DSA**. They provided inputs on the actual debt stock, the debt service of the existing stock until 2035, and the disbursement profile of the master facility; this information has been incorporated. The authorities stated that the staff assessment of the country debt distress is in line with their own assessment and they are committed to implement the staff recommendations to strengthen debt management.

Box: Baseline Scenario Assumptions

The baseline macroeconomic scenario for 2015−35 is based on the following assumptions:

- Real GDP growth will increase to an average of 6 percent a year over the medium–term, slightly lower than assumed in the previous DSA. The average growth rate is projected at 5.4 percent a year over the long–term. Inflation is projected to remain stable at about 2 percent over the projection period in line with the inflation targets under the WAEMU currency arrangement, as agricultural production and government food support program will keep inflationary pressures in check. The export price of crude oil is assumed to be on average 76 percent of the international oil price projected in the current World Economic Outlook during 2017–20, followed by gradual price increases thereafter.

- Total revenue–to–GDP ratio will rise from about 18 percent in 2014 and 18.7 percent in 2015 to 21.4 percent in 2035 lower than assumed in the previous DSA, reflecting lower revenue from natural resources due to lower commodity prices and lower revenue collection in 2014.

- Primary fiscal expenditure is expected to reach about 31.2 percent of GDP in 2015 driven by large spending needs for security, humanitarian assistance and other priorities such as food security, infrastructure, health and education. While current expenditure is expected to be gradually contained from about 15.8 percent of GDP in 2015 and 15.1 percent in 2016 to 14.2 percent of GDP in 2035, capital expenditure is expected to decline gradually, reflecting the large infrastructure needs of the country, and as a result, primary fiscal expenditure will be at 25 percent of GDP in 2035. The basic balance (the fiscal balance net of grants and externally–financed capital expenditure) will gradually converge to zero and remain positive in the long run. The overall fiscal deficit (commitment basis excluding grants) will also decline from 13.4 percent of GDP in 2015 to 4.7 percent of GDP in 2034.

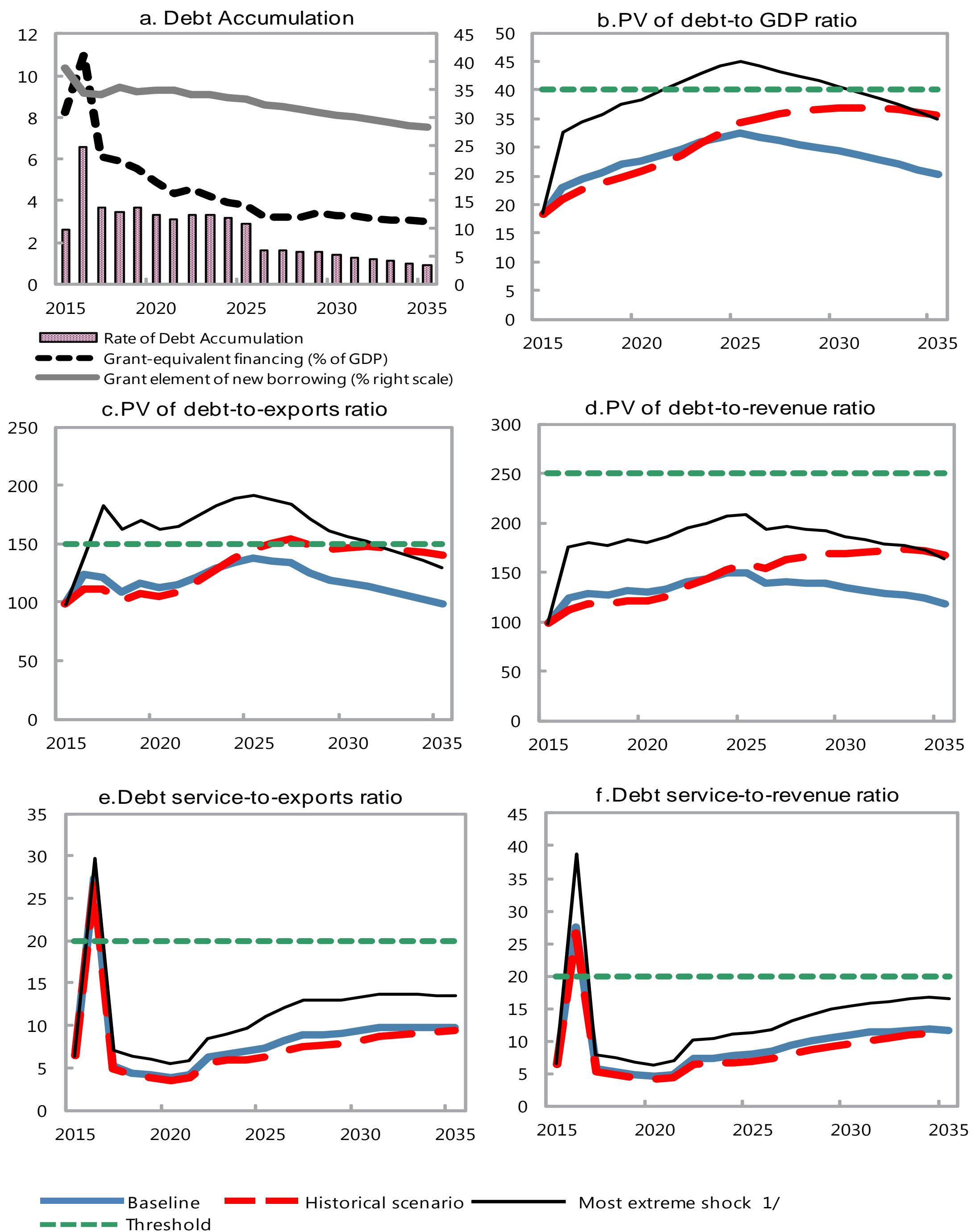
- The non–interest current account deficit is projected to gradually decline to 8.3 percent of GDP at the end of the projection period from almost 18 percent of GDP in 2016. Export volumes would increase, mainly driven by much larger export volume growth of crude oil (after oil production comes on stream in 2017) and higher uranium exports as the Imouraren project enters into production in 2020. The export volume of non–resource products is also expected to grow as a result of the expected impact of gradual economic diversification. Imports would slow down initially, in line with the decline of FDI–related imports, before stabilizing at around 34 percent of GDP. An improvement in the overall fiscal balance and higher private saving contributes to the decline in current account deficit.

- Net FDI is projected to decline slightly from about 9.3 percent of GDP in 2014 to about an average of 8.3 percent of GDP in 2015–16, during the construction of the new oil pipeline. As assumed in the previous DSA, it is expected to decrease over the medium–term as large investment projects come to completion, and the newly–established natural resource companies reimburse FDI loans received from their parent companies; these payments lead to an FDI outflow.

- The average interest rate on external debt is projected to be around 2 percent, in line with the previous DSA. Total external financing is expected to decrease after the high growth period of 2017–20 due to the reduction in borrowing needs and the expected increase in government revenue. The analysis assumes continuous inflow of grants and loans from donors of about 2.3 percent and 3 percent of GDP on average in the long run. The discount rate remains at 5 percent.

- The domestic debt profile assumes no net accumulation of domestic arrears and that securitized domestic arrears will be repaid over the next 5 years. The baseline includes an average bond issuance of about CFAF 90 billion a year after 2016 under the present terms of regional bonds for Niger (i.e., 6.3 percent interest rate, 5 years maturity and 1 year grace period).

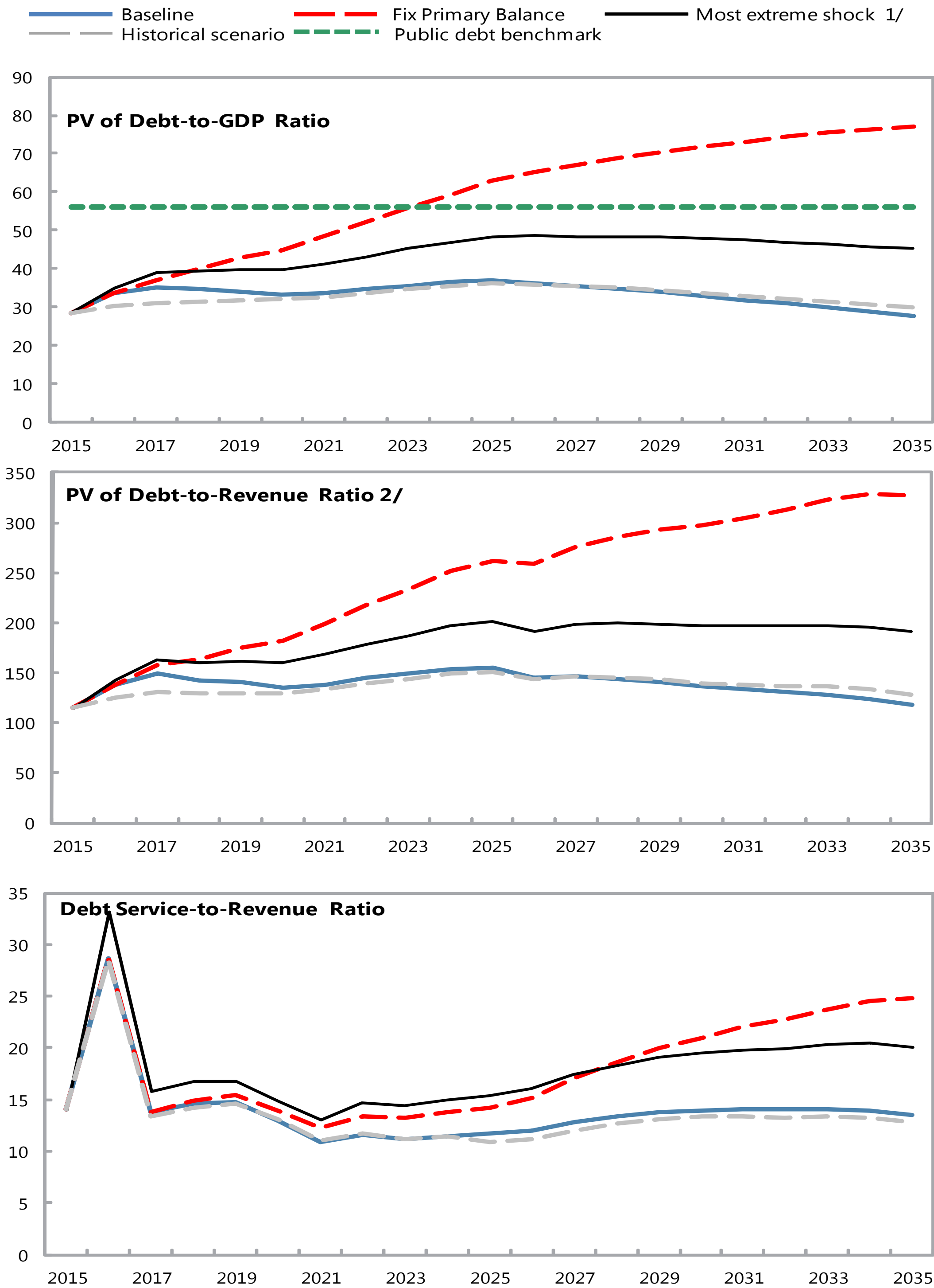
Figure 1. Niger: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios. 2015–35



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2025. In figure b. it corresponds to a One-time depreciation shock; in c. to a Exports shock; in d. to a One-time depreciation shock; in e. to a Exports shock and in figure f. to a One-time depreciation shock

Figure 2. Niger: Indicators of Public Debt Under Alternative Scenarios, 2015–35



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio on or before 2025.
2/ Revenues are defined inclusive of grants.

Table 1a. Niger: External Debt Sustainability Framework, Baseline Scenario, 2012–35

(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average 6/	Standard Deviation 6/	Projections									
	2012	2013	2014			2015	2016	2017	2018	2019	2020	2015-2020 Average	2025	2035	2021-2035 Average
External debt (nominal) 1/	**49.1**	**48.8**	**54.9**			**68.1**	**70.8**	**76.6**	**75.7**	**77.5**	**75.5**		**70.9**	**55.0**	
of which: public and publicly guaranteed (PPG)	21.0	22.6	27.0			33.0	41.6	43.0	43.7	44.7	44.5		48.1	35.1	
Change in external debt	-0.7	-0.3	6.0			13.2	2.6	5.8	-0.9	1.8	-2.0		-1.0	-1.4	
Identified net debt-creating flows	-1.6	3.9	3.7			7.6	6.3	2.5	1.8	2.5	1.0		0.9	1.9	
Non-interest current account deficit	**14.4**	**15.2**	**16.0**	**15.2**	**6.4**	**17.0**	**17.9**	**16.1**	**12.6**	**12.1**	**11.0**		**9.6**	**8.3**	9.2
Deficit in balance of goods and services	17.3	16.8	19.1			20.3	20.5	18.0	14.9	14.5	11.1		9.6	8.7	
Exports	21.7	23.2	20.0			18.7	18.7	20.3	23.5	23.2	24.6		23.6	25.6	
Imports	39.0	40.0	39.1			39.0	39.1	38.4	38.4	37.7	35.8		33.2	34.3	
Net current transfers (negative = inflow)	-4.7	-3.9	-4.8	-4.8	1.3	-3.6	-2.8	-2.5	-2.9	-2.7	-2.5		-1.9	-1.7	-1.9
of which: official	-3.3	-2.1	-2.3			-2.1	-1.3	-1.0	-1.4	-1.2	-1.0		-0.4	-0.2	
Other current account flows (negative = net inflow)	1.7	2.3	1.7			0.3	0.3	0.6	0.6	0.3	2.4		2.0	1.3	
Net FDI (negative = inflow)	**-12.0**	**-8.3**	**-9.3**	**-8.8**	**6.0**	**-7.4**	**-9.1**	**-9.9**	**-6.2**	**-5.6**	**-5.1**		**-6.1**	**-4.5**	-5.4
Endogenous debt dynamics 2/	**-4.0**	**-3.0**	**-3.0**			**-2.0**	**-2.5**	**-3.7**	**-4.6**	**-4.0**	**-5.0**		**-2.7**	**-1.9**	
Contribution from nominal interest rate	0.2	0.2	0.2			0.7	0.7	0.8	0.8	0.7	0.7		0.8	0.6	
Contribution from real GDP growth	-5.4	-2.1	-3.1			-2.7	-3.2	-4.4	-5.4	-4.7	-5.7		-3.5	-2.6	
Contribution from price and exchange rate changes	1.2	-1.1	-0.1			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**0.9**	**-4.2**	**2.4**			**5.6**	**-3.7**	**3.3**	**-2.7**	**-0.7**	**-3.0**		**-1.8**	**-3.3**	
of which: exceptional financing	-0.1	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	42.6			53.5	52.2	58.2	57.6	59.8	58.5		55.2	45.2	
In percent of exports	...	...	213.2			286.3	279.7	285.9	245.4	257.6	237.5		233.9	176.7	
PV of PPG external debt	**...**	**...**	**14.7**			**18.3**	**23.0**	**24.5**	**25.6**	**27.0**	**27.6**		**32.4**	**25.2**	
In percent of exports	**...**	**...**	**73.7**			**98.1**	**123.1**	**120.6**	**109.0**	**116.2**	**111.9**		**137.3**	**98.7**	
In percent of government revenues	**...**	**...**	**81.7**			**98.3**	**123.4**	**127.7**	**127.3**	**131.7**	**129.7**		**149.6**	**118.1**	
Debt service-to-exports ratio (in percent)	**3.4**	**5.1**	**5.3**			**9.5**	**35.5**	**21.9**	**17.3**	**8.6**	**8.0**		**13.9**	**11.0**	
PPG debt service-to-exports ratio (in percent)	**0.4**	**2.4**	**2.3**			**6.4**	**27.4**	**5.3**	**4.4**	**4.1**	**3.9**		**7.2**	**9.8**	
PPG debt service-to-revenue ratio (in percent)	**0.5**	**3.2**	**2.6**			**6.4**	**27.4**	**5.6**	**5.2**	**4.7**	**4.5**		**7.9**	**11.7**	
Total gross financing need (Billions of U.S. dollars)	0.2	0.6	0.6			0.8	1.2	0.9	1.0	0.9	0.9		1.1	2.1	
Non-interest current account deficit that stabilizes debt ratio	15.1	15.5	10.0			3.8	15.3	10.3	13.5	10.3	13.0		10.6	9.7	
Key macroeconomic assumptions															
Real GDP growth (in percent)	11.8	4.6	6.9	6.0	3.8	4.4	5.0	6.9	7.7	6.7	8.0	6.5	5.2	4.9	5.1
GDP deflator in US dollar terms (change in percent)	-2.3	2.2	0.1	4.7	6.5	-14.8	2.7	2.6	2.7	1.8	1.9	-0.5	2.0	2.2	2.0
Effective interest rate (percent) 5/	0.4	0.4	0.4	1.2	1.1	1.1	1.1	1.2	1.1	1.0	1.0	1.1	1.1	1.2	1.1
Growth of exports of G&S (US dollar terms, in percent)	13.4	14.3	-7.6	12.3	12.8	-16.9	7.8	19.5	27.7	7.4	17.0	10.4	6.6	7.8	7.5
Growth of imports of G&S (US dollar terms, in percent)	-10.8	9.6	4.7	15.1	17.5	-11.4	8.3	7.5	10.7	6.8	4.4	4.4	6.2	8.6	7.0
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	38.9	34.5	34.2	35.6	34.7	34.9	35.4	33.3	28.2	31.5
Government revenues (excluding grants, in percent of GDP)	15.2	17.0	18.0			18.7	18.6	19.2	20.1	20.5	21.3		21.7	21.4	21.6
Aid flows (in Billions of US dollars) 7/	0.6	0.9	0.7			0.8	0.7	0.7	0.7	0.7	0.6		0.7	1.3	
of which: Grants	0.4	0.6	0.4			0.4	0.4	0.4	0.4	0.4	0.4		0.4	0.7	
of which: Concessional loans	0.2	0.2	0.3			0.3	0.3	0.3	0.3	0.3	0.3		0.4	0.6	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			8.2	11.0	6.1	5.9	5.6	4.9		3.8	3.0	3.5
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			71.0	51.6	64.6	65.7	63.8	63.8		56.0	58.0	58.6
Memorandum items:															
Nominal GDP (Billions of US dollars)	7.0	7.5	8.0			7.1	7.7	8.4	9.3	10.1	11.2		16.0	32.0	
Nominal dollar GDP growth	9.3	6.9	7.0			-11.1	7.9	9.7	10.6	8.6	10.1	6.0	7.2	7.2	7.3
PV of PPG external debt (in Billions of US dollars)			1.1			1.3	1.8	2.1	2.4	2.7	3.0		5.1	7.9	
(PVt-PVt-1)/GDPt-1 (in percent)						2.6	6.6	3.6	3.5	3.6	3.3	3.9	2.9	0.9	1.9
Gross workers' remittances (Billions of US dollars)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of PPG external debt (in percent of GDP + remittances)	...	...	14.7			18.3	23.0	24.5	25.6	27.0	27.6		32.4	25.2	
PV of PPG external debt (in percent of exports + remittances)	...	...	73.7			98.1	123.1	120.6	109.0	116.2	111.9		137.3	98.7	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	2.3			6.4	27.4	5.3	4.4	4.1	3.9		7.2	9.8	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

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

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

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

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

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

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

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

Table 1b. Niger: Public Sector Debt Sustainability Framework, Baseline Scenario, 2012–35

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2012	2013	2014	Average 5/	Standard Deviation 5/	2015	2016	2017	2018	2019	2020	2015-20 Average	2025	2035	2021-35 Average
Public sector debt 1/	26.1	27.1	35.8			43.1	52.1	53.5	52.8	51.9	50.2		52.8	37.7	
of which: foreign-currency denominated	21.0	22.6	27.0			33.0	41.6	43.0	43.7	44.7	44.5		48.1	35.1	
		4.6	8.8			10.2	10.6	10.6	0.0	0.0	0.0				
Change in public sector debt	-2.9	1.1	8.7			7.3	9.0	1.4	-0.7	-0.9	-1.7		0.3	-1.5	
Identified debt-creating flows	-3.3	0.9	8.8			8.0	4.2	0.6	-1.8	-1.9	-2.6		-1.1	-0.4	
Primary deficit	1.0	2.5	8.1	1.9	2.8	6.5	6.5	3.5	1.6	1.3	1.2	3.4	1.5	1.5	1.3
Revenue and grants	21.2	25.2	23.6			24.8	24.2	23.6	24.3	24.4	24.7		24.0	23.5	
of which: grants	6.1	8.2	5.6			6.1	5.6	4.4	4.2	3.9	3.4		2.3	2.2	
Primary (noninterest) expenditure	22.2	27.7	31.8			31.2	30.7	27.1	26.0	25.6	25.9		25.4	25.0	
Automatic debt dynamics	-4.3	-1.7	0.7			1.5	-2.2	-2.9	-3.5	-3.1	-3.8		-2.6	-1.9	
Contribution from interest rate/growth differential	-3.6	-1.3	-1.9			-1.1	-1.7	-3.1	-3.7	-2.8	-3.4		-2.1	-1.5	
of which: contribution from average real interest rate	-0.6	-0.2	-0.2			0.4	0.4	0.3	0.2	0.5	0.5		0.5	0.4	
of which: contribution from real GDP growth	-3.1	-1.1	-1.8			-1.5	-2.1	-3.3	-3.8	-3.3	-3.9		-2.6	-1.8	
Contribution from real exchange rate depreciation	-0.6	-0.4	2.6			2.6	-0.5	0.2	0.2	-0.3	-0.4		...	...	
Other identified debt-creating flows	0.0	0.0	0.0			0.0	-0.1	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.0			0.0	-0.1	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Debt relief (HIPC and other)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	0.4	0.2	-0.2			-0.7	4.8	0.8	1.1	1.0	0.9		1.4	-1.1	
Other Sustainability Indicators															
PV of public sector debt	...	...	23.5			28.5	33.6	35.1	34.7	34.2	33.3		37.1	27.9	
of which: foreign-currency denominated	...	...	14.7			18.3	23.0	24.5	25.6	27.0	27.6		32.4	25.2	
of which: external	...	...	14.7			18.3	23.0	24.5	25.6	27.0	27.6		32.4	25.2	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	1.2	4.1	7.6			9.9	13.4	6.8	5.2	4.9	4.4		4.3	4.7	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	99.6			115.0	138.6	148.7	142.8	140.4	134.7		154.7	118.4	
PV of public sector debt-to-revenue ratio (in percent)	...	...	130.6			152.6	180.2	182.7	172.6	167.0	156.4		171.2	130.4	
of which: external 3/	...	...	81.7			98.3	123.4	127.7	127.3	131.7	129.7		149.6	118.1	
Debt service-to-revenue and grants ratio (in percent) 4/	0.7	6.0	-2.4			14.1	28.7	13.8	14.7	14.8	12.9		11.7	13.5	
Debt service-to-revenue ratio (in percent) 4/	1.0	9.0	-3.1			18.7	37.3	17.0	17.8	17.6	15.0		12.9	14.9	
Primary deficit that stabilizes the debt-to-GDP ratio	3.9	1.5	-0.6			-0.8	-2.5	2.1	2.4	2.1	2.9		1.2	3.0	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	11.8	4.6	6.9	6.0	3.8	4.4	5.0	6.9	7.7	6.7	8.0	6.5	5.2	4.9	5.1
Average nominal interest rate on forex debt (in percent)	0.0	0.0	0.0	1.4	1.4	1.7	1.7	1.6	1.6	1.4	1.4	1.6	1.5	1.9	1.6
Average real interest rate on domestic debt (in percent)	-3.6	2.8	3.5	-2.3	3.3	2.4	3.3	4.2	4.1	3.9	4.9	3.8	4.8	3.1	4.5
Real exchange rate depreciation (in percent, + indicates depreciation)	-3.3	-1.8	12.7	-0.6	8.6	10.1	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	5.7	-1.0	0.1	3.8	3.0	1.7	2.2	1.5	1.7	1.8	1.9	1.8	2.0	2.2	2.0
Growth of real primary spending (deflated by GDP deflator, in percent)	29.7	30.5	22.4	8.3	13.4	2.7	3.2	-5.7	3.2	5.4	9.0	3.0	6.1	8.1	4.9
Grant element of new external borrowing (in percent)	...	...	...	...	...	38.9	34.5	34.2	35.6	34.7	34.9	35.4	33.3	28.2	...

Sources: Country authorities; and staff estimates and projections.

1/ The debt data cover external and domestic debt of the central government, debt of public enterprises and parastatals, state guarantees and private external debts.

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

3/ Revenues excluding grants.

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

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

Table 2a. Niger: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2015–35

(In percent)

	Projections							
	2015	2016	2017	2018	2019	2020	**2025**	2035
PV of debt-to GDP ratio								
Baseline	18	23	25	26	27	28	**32**	25
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	18	21	23	24	25	26	**34**	36
A2. New public sector loans on less favorable terms in 2015-2035 2	18	26	29	30	33	34	**43**	40
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	18	24	26	27	28	29	**34**	27
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	18	24	29	29	30	31	**35**	25
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	18	24	27	28	29	30	**35**	27
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	18	27	32	33	34	34	**37**	26
B5. Combination of B1-B4 using one-half standard deviation shocks	18	25	32	32	34	34	**38**	27
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	18	33	34	36	37	38	**45**	35
PV of debt-to-exports ratio								
Baseline	98	123	121	109	116	112	**137**	99
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	98	112	111	101	107	105	**145**	140
A2. New public sector loans on less favorable terms in 2015-2035 2	98	142	142	130	141	138	**180**	155
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	98	124	120	107	114	110	**135**	97
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	98	140	183	162	170	162	**191**	129
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	98	124	120	107	114	110	**135**	97
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	98	145	159	140	146	138	**157**	101
B5. Combination of B1-B4 using one-half standard deviation shocks	98	136	170	149	157	149	**173**	115
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	98	124	120	107	114	110	**135**	97
PV of debt-to-revenue ratio								
Baseline	98	123	128	127	132	130	**150**	118
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	98	112	118	118	121	121	**158**	167
A2. New public sector loans on less favorable terms in 2015-2035 2	98	142	150	151	160	159	**196**	185
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	98	127	136	134	139	137	**158**	125
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	98	129	149	145	148	145	**160**	119
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	98	130	139	137	142	140	**161**	127
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	98	145	169	163	165	160	**171**	121
B5. Combination of B1-B4 using one-half standard deviation shocks	98	136	166	161	164	159	**174**	127
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	98	175	179	177	183	180	**208**	164

Table 2a. Niger: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2015–35 (concluded)

(In percent)

	Projections							
	2015	2016	2017	2018	2019	2020	**2025**	2035
Debt service-to-exports ratio								
Baseline	6	27	5	4	4	4	**7**	10
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	6	27	5	4	4	4	**6**	9
A2. New public sector loans on less favorable terms in 2015-2035 2	6	27	6	6	5	5	**11**	14
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	6	27	5	4	4	4	**7**	10
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	6	30	7	6	6	6	**11**	13
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	6	27	5	4	4	4	**7**	10
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	6	27	6	5	5	5	**10**	11
B5. Combination of B1-B4 using one-half standard deviation shocks	6	28	6	6	5	5	**10**	12
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	6	27	5	4	4	4	**7**	10
Debt service-to-revenue ratio								
Baseline	6	27	6	5	5	4	**8**	12
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	6	27	5	5	4	4	**7**	11
A2. New public sector loans on less favorable terms in 2015-2035 2	6	27	7	6	6	6	**12**	17
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	6	28	6	6	5	5	**8**	13
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	6	27	6	6	5	5	**9**	12
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	6	29	6	6	5	5	**9**	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	6	27	6	6	6	5	**10**	13
B5. Combination of B1-B4 using one-half standard deviation shocks	6	28	6	6	6	5	**10**	13
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	6	39	8	7	7	6	**11**	16
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	30	30	30	30	30	30	**30**	30

Sources: Country authorities; and staff estimates and projections.

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

Table 2b. Niger: Sensitivity Analysis for Key Indicators of Public Debt 2015–35
(In percent)

	2015	Projections 2016	2017	2018	2019	2020	2025	2035
PV of Debt-to-GDP Ratio								
Baseline	28	34	35	35	34	33	37	28
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	28	30	31	31	32	32	36	30
A2. Primary balance is unchanged from 2015	28	34	37	40	43	45	63	77
A3. Permanently lower GDP growth 1/	28	34	36	36	36	36	46	55
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-20	28	35	39	40	40	40	48	45
B2. Primary balance is at historical average minus one standard deviations in 2016-201	28	32	35	34	34	33	37	28
B3. Combination of B1-B2 using one half standard deviation shocks	28	32	34	34	34	34	40	35
B4. One-time 30 percent real depreciation in 2016	28	39	39	38	37	36	38	29
B5. 10 percent of GDP increase in other debt-creating flows in 2016	28	40	42	41	40	39	42	31
PV of Debt-to-Revenue Ratio 2/								
Baseline	115	139	149	143	140	135	155	118
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	115	125	131	129	130	129	151	128
A2. Primary balance is unchanged from 2015	115	139	157	164	175	182	262	327
A3. Permanently lower GDP growth 1/	115	140	152	148	148	146	191	229
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-20	115	143	163	161	162	160	201	191
B2. Primary balance is at historical average minus one standard deviations in 2016-201	115	134	147	142	139	134	154	118
B3. Combination of B1-B2 using one half standard deviation shocks	115	130	143	140	140	136	168	148
B4. One-time 30 percent real depreciation in 2016	115	159	166	157	152	145	158	122
B5. 10 percent of GDP increase in other debt-creating flows in 2016	115	167	177	168	165	158	175	130
Debt Service-to-Revenue Ratio 2/								
Baseline	14	29	14	15	15	13	12	14
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	14	28	13	14	15	13	11	13
A2. Primary balance is unchanged from 2015	14	29	14	15	15	14	14	25
A3. Permanently lower GDP growth 1/	14	29	14	15	15	13	13	19
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-20	14	29	15	16	16	14	13	18
B2. Primary balance is at historical average minus one standard deviations in 2016-201	14	29	14	15	15	13	11	13
B3. Combination of B1-B2 using one half standard deviation shocks	14	29	14	15	15	13	12	15
B4. One-time 30 percent real depreciation in 2016	14	33	16	17	17	15	15	20
B5. 10 percent of GDP increase in other debt-creating flows in 2016	14	29	15	16	15	13	14	15

Sources: Country authorities; and staff estimates and projections.

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

2/ Revenues are defined inclusive of grants.