INTERNATIONAL DEVELOPMENT ASSOCIATION

INTERNATIONAL MONETARY FUND

NIGER

Joint World Bank-IMF Debt Sustainability Analysis

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Prepared jointly by the staffs of the International Development Association (IDA)

and the International Monetary Fund (IMF)

Approved by Marcello Estevão (IDA) and David Owen and Johannes Wiegand (IMF)

Niger: Joint Bank-Fund Debt Sustainability Analysis	
Risk of external debt distress:	Moderate
Overall risk of debt distress	Moderate
Granularity in the risk rating	Moderate risk tool: Limited space to absorb shocks
Application of judgment	No

Niger's risk of external and overall public debt distress is rated "moderate" as in the previous DSA. While all thresholds are observed in the baseline, the PV of PPG external debt-to-exports ratio breaches its threshold under stress test scenarios. Debt-carrying capacity continues to be rated "medium." The analysis shows that Niger has limited space to accommodate negative shocks and remains vulnerable to adverse developments of its exports. The DSA is predicated on the government continuing to implement its reform program: fiscal consolidation; structural reforms, including revenue mobilization efforts; contain expenditures and improve spending quality; and timely completion of several large-scale projects, in particular the construction of a pipeline for crude oil exports. Identified weaknesses call for further strengthening of debt management, including by broadening the coverage of public debt, prioritizing concessional borrowing, and strengthening private-sector development to support economic diversification and mitigate the risks associated with commodity price fluctuations.

PUBLIC DEBT COVERAGE

1. The coverage of the public sector in the DSA is in line with fiscal accounts (Text Table 1). It covers the central government but excludes local governments, the social security fund, and extra budgetary funds. State guarantees extended to the private and public sectors for external borrowing are included. Publicly-guaranteed private debt is limited to the guarantee issued to the China National Petroleum Company (CNPC) for the construction of the refinery SORAZ.¹ SOEs do not directly borrow from abroad but benefit from debt contracted by central government and on lent to them. This includes electricity (NIGELEC), water (SPEN), and telecom (Niger Telecom) companies, and ABK, a public administrative entity set up for implementing the Kandadji dam project. Domestic debt of SOEs is excluded due to data constraints, but the authorities are working with the World Bank to improve the availability and quality of financial information for SOEs. External debt is defined on a currency basis.²

Table 1. Niger: Coverage of Public-Sector Debt and Design of Contingent Liability Stress Test

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

The country's coverage of public debt		The central government plus extra budgetary funds, central bank, government-guaranteed debt		
		Default	Used for the analysis	Reasons for deviations from the default settings
2	Other elements of the general government not captured in 1.	0 percent of GDP	0.0	
3	SoE's debt (guaranteed and not guaranteed by the government) 1/	2 percent of GDP	2.0	
4	PPP	35 percent of PPP stock	0.0	
5	Financial market (the default value of 5 percent of GDP is the minimum value)	5 percent of GDP	5.0	
Total (2+3+4+5) (in percent of GDP)			7.0	

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

2. The contingent liability tailored stress test is calibrated to account for the debt coverage gaps highlighted above (Text Table 1). First, the default shock of 0 percent of GDP is kept for other elements of the general government not captured in the baseline stock of debt since (i) the authorities indicated that the strong financial position of the social security fund (CNSS) removes material fiscal risks; (ii) the authorities confirmed the absence of extra-budgetary funds; and (iii) local governments solely contract short-term debt with the domestic banking sector. Second, the contingent liabilities shock from SOE debt is set at the default value of 2 percent to reflect risks associated with domestic borrowing by SOEs. Third, with the stock of public-private partnerships (PPPs) signed under the new PPP law of May 2018 well below the 3 percent-of-GDP limit according to the authorities and PPPs under the

¹ CNPC extended a US\$880 million (9.5 percent of GDP) loan for the construction of SORAZ refinery in 2008, of which US\$352 million (3.8 percent of GDP) is guaranteed by the government. The outstanding stock of US\$161 million (1.7 percent of GDP) at end-December 2018 is included in the baseline stock of debt and is expected to be fully repaid by 2023.

² Niger's DSA follows a hybrid approach, with financing from BOAD, the regional development bank, considered as foreign despite being local-currency-denominated.

previous PPP law already counted as part of the public debt stock in the baseline,³ no contingent liability stress test for PPPs is necessary. Fourth, given the small size and depth of the financial sector in Niger, it does not exhibit significant vulnerabilities warranting an upward adjustment of the default minimum value of 5 percent of GDP.

BACKGROUND

A. Evolution and Composition of Debt

3. **Niger’s public and publicly-guaranteed (PPG) debt stood at 53.8 percent of GDP at end-2018** (Text Figure 1). This is somewhat higher than in the previous DSA owing to the revision of historical debt stock data by about 5.1 percent of GDP.⁴ External debt dropped from an average of 70 percent of GDP during 2000–05 to 14.7 percent of GDP in 2006 following debt relief granted under the HIPC initiative. It hovered around 20–25 percent of GDP in the following years, before increasing markedly from 2015. Domestic debt has also been on a declining trend since 2000 and averaged 4 percent of GDP over 2008–14, before starting to rise in 2015. Debt service follows a similar pattern, with principal and interest payment on domestic debt surpassing debt service on PPG external borrowing from 2016.

³ These so-called commercial PPPs amounted to CFAF 218.8 billion (4.2 percent of GDP) at end-December 2018. They are expected to be fully repaid by 2033.

⁴ The authorities had inadvertently omitted some domestic loans from commercial banks, as well as concessional external loans contracted in the past. Also, the previous debt stock figures did not reflect ongoing securitization operations with commercial banks to clear domestic payment arrears. To avoid such lapse in the future, the authorities are setting up a dedicated debt management unit in the Treasury.

4. Niger’s PPG external debt accounted for 65 percent of the total debt stock in 2018 (Text Table 2). Multilateral creditors represent the lion’s share of external debt, with Niger borrowing most from the World Bank (IDA) and the West African Development Bank (BOAD). Official bilateral debt is dominated by China and France (AFD). While external debt is mainly foreign-currency denominated, exposure to exchange rate risk is relatively low given the CFAF’s peg to the euro. External debt is generally on concessional terms, with an average weighted interest rate of 1.6 percent and remaining maturity of 21 years at end-2018.

Table 2. Niger: Public and Publicly-Guaranteed Debt, 2016–18

	2016		2017		2018	
	CFAF billion	percent of GDP	CFAF billion	percent of GDP	CFAF billion	percent of GDP
PPG External Debt	1,513	33.5	1,668	35.3	1,808	35.0
Multilateral	1,071	23.8	1,271	26.9	1,394	27.0
of which: IMF	91	2.0	110	2.3	128	2.5
of which: World Bank	444	9.8	564	11.9	634	12.3
of which: BOAD	204	4.5	240	5.1	245	4.7
Official Bilateral	295	6.5	293	6.2	323	6.3
Paris Club (France)	46	1.0	54	1.1	62	1.2
Non-Paris Club	250	5.5	239	5.1	261	5.0
of which: China	108	2.4	116	2.5	119	2.3
Publicly-guaranteed private debt	146	3.2	104	2.2	92	1.8
Domestic debt	501	11.1	902	19.1	971	18.8
Tbills and bonds	422	9.4	519	11.0	679	13.2
Bank loans	2	0.0	50	1.1	19	0.4
Domestic arrears	44	1.0	89	1.9	42	0.8
Other	32	0.7	244	5.2	231	4.5
Total PPG debt	2,014	44.6	2,570	54.4	2,780	53.8

Source: Nigerien authorities, and IMF staff calculations.

Note: Domestic debt includes debt associated with commercial PPPs in 2017 (4.7 percent of GDP) and 2018 (4.2 percent of GDP).

5. Domestic debt consists mostly of short and medium-term Treasury securities, with the share of arrears and statutory advances from the regional central bank declining over time as Niger clears its domestic payments arrears and gradually repays loans from the BCEAO. From 2017 onward, the stock includes debt related to commercial PPPs contracted before the 2018 PPP law, and representing 4.7 and

4.2 percent of GDP in 2017 and 2018, respectively.⁵ The average weighted interest rate on domestic debt was 6.4 percent in 2018.

6. The estimation and analysis of private external debt is complicated by data issues and requires further follow up. The regional central bank (BCEAO) does not yet compile external debt stock statistics. Efforts to gather information on the coverage and composition of private external debt will continue, with technical support from the IMF's Statistics Department.

B. Macroeconomic Forecast

7. The baseline scenario is predicated on macroeconomic assumptions reflecting recent economic developments and expected effects of ongoing and new policy measures (Text Table 3). The framework remains broadly unchanged from the previous DSA. It assumes fiscal consolidation in line with the government's ongoing reform program, including the goal to meet the deficit target of 3 percent of GDP of the West African Economic and Monetary Union (WAEMU) by 2020. The fiscal deficit is projected to average 2 percent of GDP from 2024 onward. Similar to the previous DSA, the commencement of crude-oil exports and the resumption of activities at the Imouraren uranium site are projected for 2022 and 2025, respectively. Annual economic growth should pick up to average 7 percent over 2018-24 on the back of privately-financed projects catalyzed by the hosting of AU summit this July, and large donor-financed projects. As in the previous DSA, revenue mobilization is expected to gather steam with the implementation of performance plans for revenue administrations, the collection of tax arrears, the consolidation of tax exemptions, the fight against petroleum smuggling, computerization of revenue authorities, and improved cooperation between tax and customs administrations. On average, inflation is projected to remain at 2 percent in the longer-term.

8. Financing assumptions imply a gradual shift from domestic funding sources to foreign ones. In the short and medium term, Niger is expected to benefit from continued foreign support, including from the pledges made during the December 2017 donor roundtable and investors' forum in Paris.⁶ With fiscal consolidation reducing overall financing needs, the domestic debt ratio is thus projected to decline from 17.8 percent of GDP in 2019 to 5.4 percent of GDP in 2029.

9. The composition of foreign and domestic borrowing is also assumed to change over time. For foreign debt, new disbursements are expected to be covered by external funding sources based on historical financing patterns. Over the longer term, the weights of external creditors are adjusted so that external borrowing moves toward less concessional financing and toward commercial loans. For domestic borrowing, debt instruments are assumed to gradually shift from T-bills to medium- and long-term bonds. Consistent with the borrowing terms of recent government securities issuances on the regional market, the average interest rate on domestic debt is assumed at 6.25, 6.5 and 7.5 percent for

⁵ In the government publication, PPPs enter the domestic debt stock only when the goods and services are delivered to the State. Instead, staff included the entire stock of PPPs contracted before the new law was adopted to capture risks associated with PPPs.

⁶ Niger obtained more funding than sought for its five-year economic and social development plan (PDES 2017–2021), with a total of US\$12.7 billion pledged by official bilateral and multilateral donors while private investors expressed a commitment of US\$10.3 billion.

bonds maturing in 1 to 3, 4 to 7 years and beyond 7 years, respectively. The interest rate on T-bills is set to 6 percent.

Table 3. Niger: Key Macroeconomic Assumptions, 2016–39

	2016-2017	2018-2024	2025-2039 ^{1/}
Real GDP growth (percent)			
DSA 2019	4.9	7.0	6.0
Previous DSA	4.9	6.7	6.0
Inflation (CPI)			
DSA 2019	0.2	2.1	2.0
Previous DSA	1.3	1.8	2.0
Primary fiscal balance (percent of GDP)			
DSA 2019	-4.9	-1.7	-1.2
Previous DSA	-4.9	-1.9	-1.3
Total revenue excluding grants (percent of GDP)			
DSA 2019	14.3	18.1	21.1
Previous DSA	14.3	17.7	19.7
Exports of goods and services (percent of GDP)			
DSA 2019	16.9	19.2	23.0
Previous DSA	16.7	19.7	25.6
Oil export price (US dollars per barrel)			
DSA 2019	42.8	50.7	57.4
Previous DSA	45.4	58.5	60.2
Uranium price (Thousands of CFAF per kg)			
DSA 2019	54.2	44.1	43.9
Previous DSA	54.2	38.5	71.2

Source: IMF staff calculations.

^{1/} Averages for the previous DSA are up to 2038.

10. Realism tools do not flag significant deviations from historical experience.

- Drivers of debt dynamics (Figure 3).** The contributions of past and projected debt-creating flows remain broadly unchanged, although prices and exchange rates are expected to negatively contribute to external debt accumulation relative to historical experience. The projected contribution of real GDP growth to public debt reduction is higher than what the past five years would suggest, due to an upward revision of medium- and long-run growth. Continued fiscal consolidation should curb the contribution of the primary deficit to public debt accumulation more than in the past. For PPG external debt, past forecast errors were mainly driven by unexpected price changes and the residual. For public debt, unexpected changes in the primary deficit and prices were chiefly responsible for past forecast errors. A comparison with the distribution of past forecast errors for LICs shows that unexpected changes to Niger's debt are within the interquartile range for both public and PPG external debt.
- Realism of planned fiscal adjustment (Figure 4).** The projected 3-year fiscal adjustment in the primary balance (1.5 percentage points of GDP) lies below the top quartile of the

distribution of past adjustments to the primary fiscal deficit (above 2 percentage points of GDP) derived from the sample of LICs, hence alleviating possible concerns about the credibility of baseline assumptions. The realism of the expected adjustment is predicated on the authorities' commitment to boost revenue mobilization through the implementation of existing and new measures, to clear domestic payments arrears, to contain expenditures, and increase spending quality.

- **Consistency between fiscal adjustment and growth (Figure 4).** The projected growth path for 2019 and 2020 is broadly in line with the multiplier-based projections.
- **Consistency between public investment and growth (Figure 4).** The tool shows a similar contribution of public investment to growth in the previous and the current DSAs. Public investment is expected to remain at around 15 percent of GDP over the medium term.

C. Country Classification and Determination of Stress Test Scenarios

11. Niger's debt-carrying capacity remains rated "medium" according to the April 2019 vintage of the World Economic Outlook (WEO). The methodology relies on a composite indicator (CI) combining the CPIA score, external conditions as captured by world economic growth, and country-specific factors. Based on data from the April 2019 WEO vintage, it yields a CI value of 2.94, reflecting positive contributions from the CPIA (44 percent) but also international reserves (33 percent), and country and world real growth rates (6 and 16 percent, respectively) (Text Table 4). This score falls within the medium debt-carrying capacity thresholds defined as $2.69 < CI \leq 3.05$.

Table 4. Niger: CI Score

Components	Coefficients (A)	10-year average values (B)	CI Score components (A*B) = (C)	Contribution of components
CPIA	0.385	3.388	1.30	44%
Real growth rate (in percent)	2.719	6.280	0.17	6%
Import coverage of reserves (in percent)	4.052	39.075	1.58	54%
Import coverage of reserves*2 (in percent)	-3.990	15.269	-0.61	-21%
Remittances (in percent)	2.022	0.727	0.01	0%
World economic growth (in percent)	13.520	3.559	0.48	16%
CI Score			2.94	100%
CI rating			Medium	

Source: IMF staff calculations. The CI cutoff for medium debt-carrying capacity is $2.69 < CI \leq 3.05$.

12. The debt sustainability analysis relies on the six standardized stress tests and a tailored commodity price shock stress test. The standardized stress tests use the default settings. While Niger does not qualify for the market financing shock stress test, the commodity price shock stress test is

relevant and helps assess the sensitivity of projected debt burden indicators to unfavorable developments in commodity export prices.

DEBT SUSTAINABILITY

External Debt Sustainability

13. External debt is projected to fall gradually, with public and private debt both declining in the long run (Table 1). Under the baseline scenario, PPG external debt is expected to increase from 35 to 37.1 percent of GDP over 2018-21 owing to significant foreign borrowing to finance Niger's economic and social development agenda, before easing to 26.4 percent of GDP by 2039. The non-interest current account deficit remains the main driver of external debt dynamics, with the goods and services balance likely deteriorating in the short term due to high imports related to the construction boom ahead of the 2019 AU summit. In the medium term, large investment projects, including the Kandadji dam, a cement factory and the oil export pipeline, and MCC-funded investments in the agricultural sector likely entail higher current account deficits. Once the non-interest current account deficit, net FDI, and endogenous debt dynamics are accounted for, remaining drivers of external debt accumulation/reduction, such as components of the capital account, reserves accumulation, valuation adjustments, as well as price and exchange rate changes, are subsumed into the residual.

14. None of Niger's PPG external debt indicators breaches thresholds in the baseline scenario (Figure 1 and Table 3). Similar to the previous DSA results, all indicators remain below applicable debt thresholds throughout the projection period. The PV of debt-to-GDP ratio is expected to hover around 24 percent of GDP in the longer term. After peaking in 2021, the PV of debt-to-exports ratio is projected to decline with the commencement of crude-oil exports following the completion of the export pipeline, and the expected resumption of the Imouraren uranium project after 2025. Both the debt service-to-exports and debt service-to-revenue ratios display similar patterns, declining in 2020 and picking up in 2021 owing to principal repayment on IDA and IMF loans, and decreasing gradually thereafter. For these indicators, the baseline scenario yields a debt path relatively close to that in the historical scenario. But longer-term projections of the PV of debt-to-GDP and PV of debt-to-exports ratios suggest rapidly accumulating debt if key macroeconomic variables remained at their historical averages.

15. However, the PV of external debt-to-exports ratio breaches its applicable threshold under the export shock stress test scenario, thereby signaling a moderate risk of external debt distress. The indicator peaks at 273 percent in 2021 before progressively receding below its prescribed threshold, helped by the anticipated large boost to oil exports. This outcome is consistent across DSA vintages and underscores Niger's narrow export base concentrated on uranium and oil, generating structural vulnerability to unfavorable commodity prices and unstable export revenues. The threshold is also breached under the stress test combining adverse shocks to the current transfers-to-GDP and FDI-to-GDP ratios, albeit only in 2020 and 2021; the stress test combining the five standardized stress tests in 2020-21; and the tailored commodity price shock stress test over 2010-21. For the PPG external debt

service-to-exports ratio, the one-off breach resulting from the export shock scenario can be ignored for the debt distress ratings.

16. Niger’s “moderate” rating for debt distress is preserved in an alternative scenario where crude oil exports do not materialize (Text Figure 2). If the crude oil pipeline construction is not completed over the DSA horizon and the expected boost to exports does not materialize, the PV of PPG external-debt-to-exports ratio remains below its debt threshold applicable under the baseline scenario, so that the rating of external debt distress would remain “moderate.” The scenario involves lower economic growth in 2022 and subsequent years, lowered government revenue, and less space for expenditure increases.

Total Public Debt Sustainability

17. Public sector debt is projected to decline gradually, driven by both PPG external and domestic debt dynamics (Table 2). Public debt is expected to recede with the government’s commitment to fiscal consolidation and meeting the WAEMU deficit target by 2020. Accordingly, the primary deficit is projected to decline over time with the improvement of domestic revenue mobilization, enhancement of spending quality, and continued expenditure control, further helped by favorable automatic debt dynamics.

18. The PV of public debt-to-GDP ratio breaches its benchmark neither under the baseline, nor the stress test scenarios (Figure 2 and Table 4). Similar to the previous DSA, public debt indicators in the baseline scenario remain below their levels suggested in the historical scenario. Again, the

commodity price shock emerges as the most extreme stress test among all alternative scenarios, emphasizing the vulnerability of the public debt path to commodity price fluctuations.

Debt Sustainability in a Debt-Reprofiling Scenario

19. The authorities requested a Policy-Based Guarantee (PBG) operation with the World Bank to reduce roll-over risk, which is being carefully assessed. The request is to set aside US\$50 million in IDA funds for Niger to support a World Bank guarantee for borrowing from foreign commercial banks up to US\$500 million, equivalent to 5.2 percent of GDP. These proceeds would retire one-for-one T-bills and obligations currently held by commercial banks in other WAEMU countries. The operation would substantially lengthen maturities and also lower the government's interest bill. However, the substitution of foreign debt for domestic debt will worsen indicators of external debt sustainability. This underscores the need to carefully assess the associated benefits, costs, risks, and viability in close consultation with all stakeholders to ensure that any operation is compatible with maintaining Niger's "moderate" rating for external debt distress.

Risk Rating and Vulnerabilities

20. Niger's debt sustainability analysis finds a moderate risk of external and overall debt distress. This mirrors the results from the previous DSA, with current external and public debt trajectories remaining very close to those of the previous DSA (Figure 3). The baseline scenario indicates a sustainable debt path for both PPG external debt and public debt, but the prescribed thresholds are breached in the event of a negative shock to export growth or commodity prices.

21. A granular assessment of the moderate risk rating shows that Niger has limited space to absorb shocks (Figure 5). This result is due to the PV of debt-to-exports ratio, which resides in the "limited space" region over 2019–21. The remaining indicators are in the "some space" region, albeit to different degrees.

22. Debt sustainability is contingent on the reforms built into the baseline being implemented. Commitment to fiscal consolidation and steadfast implementation of the structural reforms are instrumental to contain debt accumulation and preserve macroeconomic stability. The baseline also presumes that Niger's large projects are successfully completed on time, especially the construction of the crude-oil pipeline for exports. Diversification and economic transformation supported by private-sector development and financial deepening is crucial for expanding the export base and mitigating the risks associated with commodity price fluctuations. Identified weaknesses call for further strengthening of debt management and sticking to a prudent borrowing strategy that prioritizes concessional borrowing. Public-sector debt coverage should also be broadened to allow for a better monitoring of borrowing by SOEs and local governments and of fiscal risks associated with PPPs.

Authorities' Views

23. The authorities broadly agreed with the thrust of the DSA. They acknowledged the importance of diversifying the export base by raising the value-added content of existing exports but noted the challenges posed by informal trade of agricultural products and minerals. Developing manufacturing agro-industries and modernizing existing value chains would allow exporting transformed products instead of low value-added primary commodities. While highlighting the mitigating role of Niger's access to WAEMU's pooled international reserves, they also concurred that the timely completion of the crude-oil pipeline is instrumental for supporting public finances and better underpinning debt sustainability going forward. The authorities also intend to further strengthen debt management by establishing a dedicated debt management unit within the Treasury with a modern front-middle-back office structure by the end of 2019.

24. However, they emphasized a few points, especially regarding the tailoring of the contingent liabilities stress test.

- First, they affirmed staff that the stock of PPPs contracted under the 2018 PPP law stood at a mere CFAF 33 billion (0.6 percent of GDP). Corroboration documentation would be provided. They also noted the difference in the recording of PPPs concluded under the previous PPP law, which the DSA counts toward in the debt stock, as they have the nature of installment payment plans, but the authorities so far do not in the debt management reports. They agreed to include a section discussing PPP arrangements in their quarterly debt reports, including the associated fiscal risks.
- Second, they noted that the contingent liabilities stress test shock for SOE borrowing should be less than 2 percent of GDP. They argued that the much higher estimate of 25 percent of GDP from the World Bank report on the governance of SOEs covers the entire stock of liabilities of SOEs, including taxes owed to the central government, on-lending from the central government, and other cross-debts. Such debt was within the public sector and should therefore be disregarded in the DSA. While agreeing with the need to improve data on SOE debt to be able to allow for separating out debt to banks and arrears to suppliers. They underscored that SOEs are generally unable to contract external debt due to their small size and poor capacity to produce reliable financial statements.
- Third, authorities explained that although the law allows local governments to contract debt directly, in practice borrowing is well contained as it requires approval by the municipal council and the Ministry of Finance. It is limited to short-term debt with the domestic banking sector, with only a handful of local governments having overdraft facilities to pay salaries and current expenditures.
- Fourth, the authorities assured staff that they remain firmly committed to keep Niger's "moderate" rating for external debt distress.

25. The authorities also communicated that they may wish to conduct a debt reprofiling operation. It involves repaying T-bills and obligations currently held by regional banks, which are recorded as domestic debt in this DSA as they are denominated in CFAF, with funds raised from foreign banks. The operation would be supported by a Policy Based Guarantee from the World Bank. Staff stressed that this would deteriorate the DSA indicator for external PPG debt relative to exports. The authorities assured staff that they would tailor the operation so that Niger's risk rating for external debt distress would remain at "moderate."

Figure 1. Niger: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2019–30

Customization of Default Settings		
	Size	Interactions
Tailored Tests		
Combined CLs	No	
Natural Disasters	n.a.	n.a.
Commodity Prices ^{2/}	No	No
Market Financing	n.a.	n.a.

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

Borrowing Assumptions for Stress Tests*		
	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	1.8%	1.8%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	27	27
Avg. grace period	6	6

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

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2029. Stress tests with one-off breaches are also presented (if any), while these one-off breaches are deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most extreme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

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

Figure 2. Niger: Indicators of Public Debt Under Alternative Scenarios, 2019–30

Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	47%	47%
Domestic medium and long-term	21%	21%
Domestic short-term	32%	32%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	1.8%	1.8%
Avg. maturity (incl. grace period)	27	27
Avg. grace period	6	6
Domestic MLT debt		
Avg. real interest rate on new borrowing	4.5%	4.5%
Avg. maturity (incl. grace period)	3	3
Avg. grace period	1	1
Domestic short-term debt		
Avg. real interest rate	4%	4.0%

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

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2029. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most extreme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

Figure 3. Niger: Drivers of Debt Dynamics—Baseline Scenario

1/ Difference between anticipated and actual contributions on debt ratios.

2/ Distribution across LICs for which LIC DSAs were produced.

3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

Figure 4. Niger: Realism Tools

Figure 5. Niger: Qualification of the Moderate Category, 2019–30^{1/}

Sources: Country authorities; and staff estimates and projections.

1/ For the PV debt/GDP and PV debt/exports thresholds, x is 20 percent and y is 40 percent. For debt service/Exports and debt service/revenue thresholds, x is 12 percent and y is 35 percent.

Table 1. Niger: External Debt Sustainability Framework, Baseline Scenario, 2016–39
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 8/ Historical Projections	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2029	2039	Historical	Projections
External debt (nominal) 1/ of which: public and publicly guaranteed (PPG)	65.3 33.5	65.6 35.3	62.5 35.0	63.3 36.5	62.1 37.1	60.9 37.1	56.9 35.3	55.7 35.1	54.1 34.7	48.7 32.9	38.0 26.4	53.9 25.3	55.2 35.0
Change in external debt	3.8	0.3	-3.1	0.8	-1.1	-1.2	-4.0	-1.2	-1.5	-1.1	-1.1		
Identified net debt-creating flows	9.2	7.7	4.7	9.4	10.0	8.7	2.4	4.5	3.4	3.5	2.9	6.8	5.1
Non-interest current account deficit	15.4	15.6	18.1	19.1	21.8	18.8	13.9	12.4	11.2	10.7	9.7	18.9	13.8
Deficit in balance of goods and services	22.4	24.5	25.5	29.4	25.5	25.2	15.6	15.2	14.5	13.3	-21.5	23.3	17.4
Exports	16.2	17.6	15.6	16.4	16.5	17.0	22.7	23.0	23.6	23.4	21.5		
Imports	38.6	42.1	41.1	45.7	42.0	42.2	38.3	38.2	38.0	36.6	0.0		
Net current transfers (negative = inflow)	-3.7	-5.1	-5.2	-5.5	-4.9	-4.6	-4.2	-4.1	-4.5	-3.7	-2.9	-4.1	-4.3
of which: official	-1.8	-2.8	-2.7	-3.0	-2.4	-2.2	-1.9	-1.9	-1.9	-1.9	-1.8		
Other current account flows (negative = net inflow)	-3.3	-3.9	-2.1	-4.8	1.2	-1.8	2.5	1.3	1.3	1.1	34.1	-0.3	0.7
Net FDI (negative = inflow)	-3.4	-3.8	-5.2	-6.7	-8.9	-7.5	-5.8	-5.2	-5.0	-5.0	-5.0	-9.6	-5.8
Endogenous debt dynamics 2/	-2.3	-4.1	-3.2	-3.1	-2.8	-2.6	-5.7	-2.6	-2.9	-2.2	-1.8		
Contribution from nominal interest rate	0.1	-1.1	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.4		
Contribution from real GDP growth	-2.9	-3.0	-3.7	-3.8	-3.5	-3.2	-6.3	-3.2	-3.4	-2.7	-2.2		
Contribution from price and exchange rate changes	0.0	-1.2	-4.5	...	...	...	...	...	...	...	...		
Residual 3/	-5.4	-7.4	-7.9	-8.6	-11.2	-9.9	-6.4	-5.8	-4.9	-4.6	-4.0	-3.1	-6.4
of which: exceptional financing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	...	...	24.5	26.2	26.4	26.3	24.9	24.7	24.4	23.6	19.2		
PV of PPG external debt-to-exports ratio	...	...	156.5	160.2	159.9	155.0	109.4	107.4	103.4	101.0	89.2		
PPG debt service-to-exports ratio	3.3	3.2	4.5	12.1	11.5	12.7	8.9	8.4	7.6	6.6	6.8		
PPG debt service-to-revenue ratio	3.7	3.9	4.2	12.4	11.0	12.1	10.5	9.9	9.0	7.4	6.8		
Gross external financing need (Million of U.S. dollars)	999.9	1055.6	1300.4	1438.5	1612.0	1591.4	1382.4	1344.4	1302.4	1697.7	3175.3		
Key macroeconomic assumptions													
Real GDP growth (in percent)	4.9	4.9	6.5	6.3	6.0	5.6	11.9	6.1	6.8	5.9	6.1	5.5	6.7
GDP deflator in US dollar terms (change in percent)	0.0	1.9	7.3	-1.7	3.6	2.6	2.0	2.4	2.6	2.0	2.4	0.3	1.9
Effective interest rate (percent) 4/	0.2	0.2	0.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	0.6	1.1
Growth of exports of G&S (US dollar terms, in percent)	-7.1	16.2	1.8	9.2	10.9	11.2	52.9	9.9	12.4	6.9	8.4	4.1	13.4
Growth of imports of G&S (US dollar terms, in percent)	16.2	16.6	11.7	16.2	0.9	8.8	3.7	8.2	9.1	7.7	-100.0	4.9	7.6
Grant element of new public sector borrowing (in percent)	...	...	...	38.3	36.6	36.8	36.6	36.6	36.2	35.4	35.4	...	36.2
Government revenues (excluding grants, in percent of GDP)	14.3	14.4	16.7	16.0	17.2	17.8	19.3	19.7	19.9	20.8	21.6	15.5	19.3
Aid flows (in Million of US dollars) 5/	799.0	863.9	1072.2	1220.1	1245.7	1185.3	1234.5	1260.6	1333.2	1742.7	3498.6		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	11.0	10.1	8.7	8.0	7.5	7.2	6.5	6.0	...	7.9
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	75.5	75.6	75.5	74.7	74.3	74.0	77.0	78.9	...	75.6
Nominal GDP (Million of US dollars)	7,610	8,136	9,300	9,713	10,672	11,567	13,203	14,347	15,718	23,299	51,506		
Nominal dollar GDP growth	4.9	6.9	14.3	4.4	9.9	8.4	14.1	8.7	9.6	8.0	8.7	5.8	8.7
Memorandum items:													
PV of external debt 7/	...	...	52.0	53.0	51.4	50.1	46.4	45.2	43.8	39.4	30.8		
In percent of exports	...	...	332.1	323.9	311.4	295.5	204.5	196.9	185.9	168.5	143.0		
Total external debt service-to-exports ratio	7.1	6.8	6.8	14.3	13.5	14.6	10.1	9.6	8.7	6.8	6.9		
PV of PPG external debt (in Million of US dollars)	...	...	2277.6	2545.9	2817.9	3039.3	3281.0	3538.3	3830.4	5501.0	9896.7		
(Pvt-Pvt-1)/GDPt-1 (in percent)	...	...	...	2.9	2.8	2.1	2.1	1.9	2.0	1.6	1.1		
Non-interest current account deficit that stabilizes debt ratio	11.6	15.3	21.2	18.4	22.9	20.0	17.9	13.6	12.7	11.8	10.7		

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - p(1+g)] / (1+g+p+g)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and p = 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/ Current-year interest payments divided by previous period debt stock.

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

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

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

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

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	Yes

Table 2. Niger: Public Sector Debt Sustainability Framework, Baseline Scenario, 2016–39
(In percent of GDP, unless otherwise indicated)

	Actual			Projections										Average 6/	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2029	2039	Historical	Projections		
Public sector debt 1/	44.6	54.4	53.8	54.2	52.7	51.0	47.0	45.3	43.3	38.3	34.1	33.5	44.8		
of which: external debt	33.5	35.3	35.0	36.5	37.1	37.1	35.3	35.1	34.7	32.9	26.4	25.3	35.0		
Change in public sector debt	4.8	9.7	-0.5	0.4	-1.6	-1.7	-4.0	-1.6	-2.0	-0.7	-0.4				
Identified debt-creating flows	4.5	-0.3	0.3	-0.2	-1.6	-1.3	-3.8	-1.4	-1.8	-0.8	-0.7	-0.1	-1.4		
Primary deficit	5.1	4.7	2.8	2.7	1.6	1.3	1.2	1.2	0.9	1.2	1.2	4.2	1.3		
Revenue incl. grants	20.3	21.2	25.0	24.8	25.4	24.9	25.7	25.6	25.7	26.3	26.7	21.4	25.7		
of which: grants	6.0	6.7	8.3	8.8	8.2	7.1	6.4	6.0	5.8	5.5	5.1				
Primary (noninterest) expenditure	25.4	25.8	27.8	27.5	27.0	26.2	26.9	26.8	26.6	27.5	27.9	25.5	27.1		
Automatic debt dynamics	-0.7	-4.9	-2.5	-2.9	-3.2	-2.6	-5.0	-2.6	-2.8	-2.0	-1.8				
Contribution from interest rate/growth differential	-1.8	-2.0	-3.7	-2.6	-2.8	-2.5	-5.1	-2.5	-2.7	-2.1	-1.8				
of which: contribution from average real interest rate	0.1	0.1	-0.4	0.5	0.3	0.3	0.3	0.2	0.2	0.1	0.2				
of which: contribution from real GDP growth	-1.9	-2.1	-3.3	-3.2	-3.1	-2.8	-5.4	-2.7	-2.9	-2.2	-2.0				
Contribution from real exchange rate depreciation	1.2	-2.9	1.2	...	...	...	...	...	...	...	...				
Other identified debt-creating flows	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.1	0.0		
Privatization receipts (negative)	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Recognition of contingent liabilities (e.g., bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Debt relief (HIPC and other)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Other debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Residual	0.3	10.0	-0.9	0.3	-0.4	-0.5	-0.1	-0.3	-0.3	0.2	0.2	3.6	-0.1		
Sustainability indicators															
PV of public debt-to-GDP ratio 2/	...	...	44.2	43.8	41.9	40.1	36.5	34.8	32.9	28.9	26.9				
PV of public debt-to-revenue and grants ratio	...	...	176.9	176.6	165.2	161.2	142.0	135.9	127.8	109.9	100.7				
Debt service-to-revenue and grants ratio 3/	10.7	18.9	28.7	36.8	36.0	40.1	36.0	34.2	30.3	17.8	18.2				
Gross financing need 4/	6.9	8.0	10.0	11.9	10.8	11.3	10.4	9.9	8.7	5.9	6.0				
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	4.9	4.9	6.5	6.3	6.0	5.6	11.9	6.1	6.8	5.9	6.1	5.5	6.7		
Average nominal interest rate on external debt (in percent)	0.0	0.0	0.0	1.8	1.7	1.6	1.6	1.6	1.6	1.7	1.7	1.0	1.6		
Average real interest rate on domestic debt (in percent)	4.0	6.2	2.0	3.2	2.3	2.9	3.6	3.2	3.4	4.0	4.0	2.7	3.4		
Real exchange rate depreciation (in percent, + indicates depreciation)	4.0	-9.1	3.6	...	...	...	...	...	...	...	...	1.5	...		
Inflation rate (GDP deflator, in percent)	0.2	-0.1	2.6	1.5	2.5	2.1	1.4	2.0	2.0	2.0	2.4	2.3	1.9		
Growth of real primary spending (deflated by GDP deflator, in percent)	-16.0	6.6	14.9	5.1	4.0	2.4	14.7	5.9	6.2	6.2	5.5	8.6	6.6		
Primary deficit that stabilizes the debt-to-GDP ratio 5/	0.4	-5.1	3.4	2.3	3.2	3.0	5.2	2.8	3.0	1.8	1.6	-0.4	2.7		
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central government, central bank, government-guaranteed debt. Definition of external debt is Currency-based.

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

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

4/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period and other debt creating/reducing flows.

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

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

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	Yes

Table 3. Niger: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2019–30

	Projections 1/											
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PV of debt-to GDP ratio												
Baseline	26	26	26	25	25	24	24	24	24	24	24	23
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2019-2039 2/	26	25	24	25	27	29	32	34	36	39	41	43
B. Bound Tests												
B1. Real GDP growth	26	28	29	28	28	27	27	27	27	27	27	26
B2. Primary balance	26	28	30	29	29	29	29	29	29	28	28	27
B3. Exports	26	29	32	30	30	29	29	29	28	28	27	27
B4. Other flows 3/	26	31	36	33	33	32	31	31	31	30	29	28
B6. One-time 30 percent nominal depreciation	26	33	27	26	26	26	25	26	26	26	26	26
B6. Combination of B1-B5	26	34	35	33	32	32	31	31	31	30	29	29
C. Tailored Tests												
C1. Combined contingent liabilities	26	29	29	28	28	28	27	27	27	27	27	26
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	26	28	29	27	27	26	26	25	25	24	24	23
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	40	40	40	40	40	40	40	40	40	40	40	40
PV of debt-to-exports ratio												
Baseline	160	160	155	109	107	103	98	101	102	101	101	99
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2019-2039 2/	160	152	143	112	118	125	130	143	154	164	175	183
B. Bound Tests												
B1. Real GDP growth	160	160	155	109	107	103	98	101	102	101	101	99
B2. Primary balance	160	169	176	127	127	123	117	121	122	120	119	116
B3. Exports	160	207	273	192	187	179	168	173	174	170	168	163
B4. Other flows 3/	160	190	211	147	143	137	128	131	131	127	125	120
B6. One-time 30 percent nominal depreciation	160	160	127	90	89	87	82	86	87	88	89	88
B6. Combination of B1-B5	160	212	183	165	161	155	145	149	150	147	145	141
C. Tailored Tests												
C1. Combined contingent liabilities	160	173	171	122	121	117	111	114	115	114	114	111
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	160	186	185	126	121	114	105	107	107	104	103	99
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	180	180	180	180	180	180	180	180	180	180	180	180
Debt service-to-exports ratio												
Baseline	12	11	13	9	8	8	6	6	6	7	7	7
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2019-2039 2/	12	12	13	10	10	9	8	8	8	9	9	10
B. Bound Tests												
B1. Real GDP growth	12	11	13	9	8	8	6	6	6	7	7	7
B2. Primary balance	12	11	13	9	9	8	7	7	7	8	8	8
B3. Exports	12	14	19	14	13	12	10	10	11	12	11	11
B4. Other flows 3/	12	11	13	10	9	8	7	7	8	9	9	8
B6. One-time 30 percent nominal depreciation	12	11	13	8	8	7	6	6	6	6	6	6
B6. Combination of B1-B5	12	13	17	12	11	10	9	8	10	10	10	10
C. Tailored Tests												
C1. Combined contingent liabilities	12	11	13	9	9	8	7	6	7	7	7	7
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	12	13	14	10	9	8	7	7	7	7	7	7
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	15	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio												
Baseline	12	11	12	10	10	9	8	7	7	8	7	7
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2019-2039 2/	12	11	13	12	11	11	10	9	10	10	10	11
B. Bound Tests												
B1. Real GDP growth	12	12	14	12	11	10	9	8	8	9	8	8
B2. Primary balance	12	11	12	11	10	10	8	8	8	9	9	9
B3. Exports	12	11	13	11	11	10	8	8	8	9	9	9
B4. Other flows 3/	12	11	13	12	11	10	9	8	9	10	10	9
B6. One-time 30 percent nominal depreciation	12	14	15	12	12	11	9	8	9	8	8	8
B6. Combination of B1-B5	12	12	14	12	12	11	9	8	10	10	10	9
C. Tailored Tests												
C1. Combined contingent liabilities	12	11	12	11	10	9	8	8	8	8	8	8
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	12	12	13	12	11	10	8	8	8	8	8	8
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	18	18	18	18	18	18	18	18	18	18	18	18

Sources: Country authorities; and staff estimates and projections.

1/ A bold value indicates a breach of the threshold.

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

3/ Includes official and private transfers and FDI.

Table 4. Niger: Sensitivity Analysis for Key Indicators of Public Debt, 2019–30

	Projections											
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PV of Debt-to-GDP Ratio												
Baseline	44	42	40	36	35	33	31	30	30	29	29	29
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2018-2038 1/	44	44	44	45	45	45	46	46	47	48	49	50
B. Bound Tests												
B1. Real GDP growth	44	45	48	45	45	44	44	44	45	46	46	47
B2. Primary balance	44	46	48	44	41	39	37	36	35	34	33	32
B3. Exports	44	44	45	41	39	37	35	34	34	33	32	31
B4. Other flows 2/	44	47	50	45	43	41	39	38	37	35	34	34
B6. One-time 30 percent nominal depreciation	44	47	43	38	34	31	28	26	24	22	21	20
B6. Combination of B1-B5	44	45	44	38	36	33	31	30	29	29	28	28
C. Tailored Tests												
C1. Combined contingent liabilities	44	48	45	41	39	37	35	34	33	32	31	31
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	44	44	46	45	46	47	47	48	48	49	50	52
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Public debt benchmark	55	55	55	55	55	55	55	55	55	55	55	55
PV of Debt-to-Revenue Ratio												
Baseline	177	165	161	142	136	128	120	116	114	112	110	108
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2018-2038 1/	177	174	179	172	173	172	172	173	177	180	183	185
B. Bound Tests												
B1. Real GDP growth	177	176	185	170	170	167	163	163	167	169	172	174
B2. Primary balance	177	182	194	170	161	151	141	135	132	129	126	123
B3. Exports	177	172	182	161	154	145	136	131	129	125	122	119
B4. Other flows 2/	177	184	199	176	168	158	148	143	140	135	131	127
B6. One-time 30 percent nominal depreciation	177	191	178	150	137	122	109	100	94	87	81	76
B6. Combination of B1-B5	177	178	177	148	139	129	120	114	112	109	107	105
C. Tailored Tests												
C1. Combined contingent liabilities	177	188	182	160	152	142	133	128	125	122	120	117
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	177	182	193	184	186	184	180	180	184	188	191	194
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Debt Service-to-Revenue Ratio												
Baseline	37	36	40	36	34	30	26	21	19	18	18	17
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2018-2038 1/	37	36	44	43	44	42	39	34	33	33	33	33
B. Bound Tests												
B1. Real GDP growth	37	38	45	43	43	40	36	32	31	31	31	31
B2. Primary balance	37	36	47	47	43	37	30	24	22	21	20	20
B3. Exports	37	36	40	36	35	31	26	21	20	19	19	18
B4. Other flows 2/	37	36	41	37	35	31	26	21	21	20	20	19
B6. One-time 30 percent nominal depreciation	37	36	41	36	35	31	26	21	20	19	18	18
B6. Combination of B1-B5	37	35	40	41	37	33	27	22	20	18	18	17
C. Tailored Tests												
C1. Combined contingent liabilities	37	36	50	42	40	34	28	23	21	20	19	18
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	37	38	45	45	47	45	41	36	35	34	34	35
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Sources: Country authorities; and staff estimates and projections.

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

2/ Includes official and private transfers and FDI.