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THIRD REVIEW UNDER THE EXTENDED CREDIT FACILITY ARRANGEMENT, AND FINANCING ASSURANCES REVIEW—DEBT SUSTAINABILITY ANALYSIS

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Prepared by the staffs of the International Monetary Fund and International Development Association.

São Tomé and Príncipe: Joint Bank-Fund Debt Sustainability Analysis	
Risk of external debt distress	*In debt distress*
Overall risk of debt distress	*In debt distress*
Granularity in the risk rating	*Sustainable*
Application of judgement	*No*

The country remains in debt distress due to prolonged unsettled external arrears of more than 2 percent of GDP, however, debt is considered sustainable due to the low and declining level of debt after accounting for concessionality, low debt service indicators and expected strengthening of domestic revenue and the energy sector under the on-going IMF program[1]*. Staff assesses that the country has the capacity to repay the external arrears over time, as indicated by the moderate external debt ratios. While the present value (PV) of the external public and publicly guaranteed (PPG) debt-to-exports ratio breaches its threshold in 2021 and 2022 due to the COVID-19 shock and debt service-to-exports ratio marginally breaches its threshold in 2025, all other external PPG debt burden indicators remain below their thresholds throughout the projection horizon in the baseline scenario. The PV of total PPG debt (after accounting for the concessional terms of central government's debt and EMAE's debt and arrears to the country's fuel supplier, ENCO) is projected to breach the benchmark associated with a weak debt-carrying capacity (35 percent of GDP) through 2025. As its downward trajectory remains intact, predicated on the authorities' commitment to implement EMAE's planned reforms and borrow externally only on concessional terms at a measured pace, public debt sustainability is preserved but subject to large risks. The likelihood of contingent liabilities materializing, particularly ENCO's arrears to its parent company Sonangol (a state-owned company of Angola), remains low*

[1] The country's debt carrying capacity is assessed to remain weak under the Composite Index (CI), as in the previous DSA of the Second Review of ECF (see Text Table 2). The CI is estimated based on the April 2021 WEO vintage and 2019 World Bank's Country Policy and Institutional Assessment (CPIA). The applicable thresholds for debt indicators remain unchanged as in the previous review. The DSA analysis uses the residency-based assumption on debt.

1. **São Tomé and Príncipe remains in debt distress as in the previous DSA.** For the purpose of the DSA for São Tomé and Príncipe, PPG debt includes central government's debt and EMAE's (a state-owned utility company) debt and arrears[2]. Total PPG debt reached around 87 percent of GDP in 2020, including external debt of 43 percent of GDP.[3,4] The debt distress rating reflects the ongoing regularization of São Tomé and Príncipe's post-HIPC sovereign arrears (to Angola, Brazil, and Equatorial Guinea). The arrears add up to US$10.7 million (2.2 percent of 2020 GDP). The government has actively sought debt rescheduling agreements with Angola and Equatorial Guinea through correspondence and high-level meetings and made some good progress. An agreement with the Brazilian government was reached, pending ratification by the Brazilian Senate. The presence of significant debt and arrears of EMAE to its supplier also reflect severe liquidity constraints in the public sector. Staff assesses that São Tomé and Príncipe has the capacity to repay these arrears over time as long as the country implements reforms to the lossmaking state-owned enterprise, EMAE, and continues to borrow externally at concessional terms. São Tomé and Príncipe continues to actively seek rescheduling agreements with Angola, Brazil, and Equatorial Guinea[5].

Text Table 1. São Tomé and Príncipe: Public Debt Coverage Under the Baseline Scenario[1]

	Subsectors of the public sector	Subsectors covered
1	Central government	X
2	State and local government	
3	Other elements in the general government	X
4	o/w: Social security fund	X
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	

Sources: IMF and World Bank staff.
[1] Include the large loss-making utility company EMAE.

[2] The DSA includes the concessional terms of the recent restructuring of EMAE's debt to the country's fuel supplier, ENCO. ENCO is a private company owned by Sonangol (77.6 percent of capital), an Angolan state-owned company, with the government owning about 16 percent of the company's share capital. In July 2019, EMAE and ENCO signed an agreement on the regularization of EMAE's arrears up to that point to ENCO in the amount of $104.4 million.
[3] Consistent with the previous DSA, pre-HIPC initiative arrears to Angola ($36 million) and to Italy ($24.3 million) are excluded, since the country is making best efforts to reach an agreement consistent with the representative Paris Club agreement. It also excludes the disputable Nigeria debt (30 million), as there is no signed contract with repayment conditions between the two countries. Domestic arrears are included in the baseline, including arrears to the telecom company CST (US$6.1 million), the water and electricity company EMAE (US$3.5 million), and other private domestic suppliers (US$35.4 million, mostly construction companies).
[4] The external debt level in 2020 reflects denominator effect of higher nominal GDP and lower actual external stock, compared to previously projected values in the Second review.
[5] São Tomé and Príncipe has requested participation in the DSSI from its official bilateral creditors in 2020. The DSA Baseline scenario has the same assumptions of the terms of DSSI as in the previous review.

Text Table 2. São Tomé and Príncipe: Classification of Debt Carrying Capacity

Final	Classification based on current vintage	Classification based on the previous vintage	Classification based on the two previous vintages
Weak	Weak	Weak	Medium
	2.663	2.678	2.685

Text Table 3. São Tomé and Príncipe: Coverage of the Contingent Liabilities' Stress Test

1	**The country's coverage of public debt**	The central government, central bank, and government-guaranteed debt. There is no debt by social security or borrowing by extra budgetary entities.			
		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	5.9 percent of GDP for public DSA; 48.7 percent of GDP for external DSA	Include the loan from Nigeria (5.9 percent of GDP), which is under dispute for public and external DSA for prudence purpose. Include ENCO's arrears to Sonangol (40.4 percent of GDP) and Permanent Court of Arbitration fine (2.4 percent of GDP) in external DSA. 1/
3	**SoE's debt (guaranteed and not guaranteed by the government) 2/**	2	percent of GDP	2 percent of GDP	
4	**PPP**	35	percent of PPP stock	0 percent of GDP	The PPP project is pre-HIPC and is excluded from the DSA analysis.
5	**Financial market (the default value of 5 percent of GDP is the minimum value) 3/**	5	percent of GDP	5 percent of GDP	
	Total (2+3+4+5) (in percent of GDP)	12.9 percent of GDP for public and 55.7 percent of GDP for external DSA. 4/			

1/ We include the ENCO's debt in the contingent liabilities' stress test since ENCO is partially owned by São Tomé and Príncipe's government. The ENCO to Sonangol arrears shock is not applied to the public DSA because ENCO's claims on the government and EMAE are already included in the domestic PPG debt. The shock scenario for external DSA also includes the estimated fines $12.4 million (2.4 percent of GDP) imposed by the Permanent Court of Arbitration in 2019 regarding the country's improper seizure of a Maltese ship in 2013.

2/ The default shock of 2 percent of GDP will be triggered for countries whose government-guaranteed debt is not fully captured under the country's public debt definition. Stress tests here use default values for other SOEs' debt due to lack of more accurate data, and their relatively small sizes. ENAPORT and ENASA continue to improve data collection efforts and we will incorporate their debt statistics for the DSA in the future when data available.

3/ The default value for financial markets is considered appropriate for Sao Tome.

4/ The sizes of contingent liability are smaller in percent of GDP compared to the previous review, mainly due to higher growth outturn in 2020.

Sources: IMF and World Bank staff.

2. Growth was supported by externally financed public spending in 2020. Real GDP growth is estimated at 3 percent in 2020, instead of -6.5 projected previously. Average real growth stays at 3.8 percent and inflation has been revised down to 2.6 percent throughout the 2021-41 projection horizon, respectively (compared to 4 percent and 3.1 percent in the previous DSA). The public and external debt levels have improved compared to the previous DSA, mainly due to higher growth outturn in 2020. Export growth has been revised upward and import growth has been revised slightly downward throughout the projection horizon. The domestic primary budget deficit stays at 1.3 percent of GDP through the projection horizon as in the previous DSA. The economy is expected to recover with the implementation of long-delayed construction projects and a recovery in tourism and global demand, while the economic outlook remains subject to significant uncertainty given the ongoing pandemic, energy crisis and lack of reliable high frequency data.

3. Despite the debt distress rating, the DSA indicates that total external PPG debt is sustainable under the program baseline. Under the baseline scenario[6], the external PPG debt stock and debt service ratios remain below the DSA threshold values throughout the projection horizon, except for some temporary breaches relate to projected IMF repayments in 2024-25 (Figure 1). The PV of PPG external debt-to-GDP ratio remains below the threshold of 30 percent throughout the period, and the PV of PPG external debt-to-exports ratio remains below the threshold of 140 percent of GDP from 2023 onward. The improvement of the solvency indicators and liquidity indicators over the medium term reflect fiscal consolidation, cautious external borrowing, economic growth, and an improved current account balance. Stress tests suggest the vulnerability of external debt and the realism tools do not flag concerns with the revised baseline. One of the most extreme shock scenarios is the combined contingent liability shock (for both solvency indicators and debt service-to-revenue ratio), suggesting the importance of developing plans for contingent liabilities and arrears. The most extreme shock for debt service-to-exports ratio is the exports shock.

4. Under the baseline scenario, public debt is deemed sustainable but remains in distress. The PV of PPG debt is projected to have a downward trajectory. After accounting for the concessional terms of EMAE's debt to ENCO governed by a 2019 agreement for the repayment of arrears accumulated up to that date (with fixed annual payments, no interest and a grant element over 80 percent), the PV of PPG debt is projected to breach the DSA threshold of 35 percent through 2024 before gradually declining to around 23 percent of GDP by 2031 (Figure 2[7]). The most extreme shock is the primary balance shock for the solvency indicators (PV of debt-to-GDP and PV of debt-to-revenue ratios). The liquidity indicator (debt service-to-revenue ratio) is most sensitive-

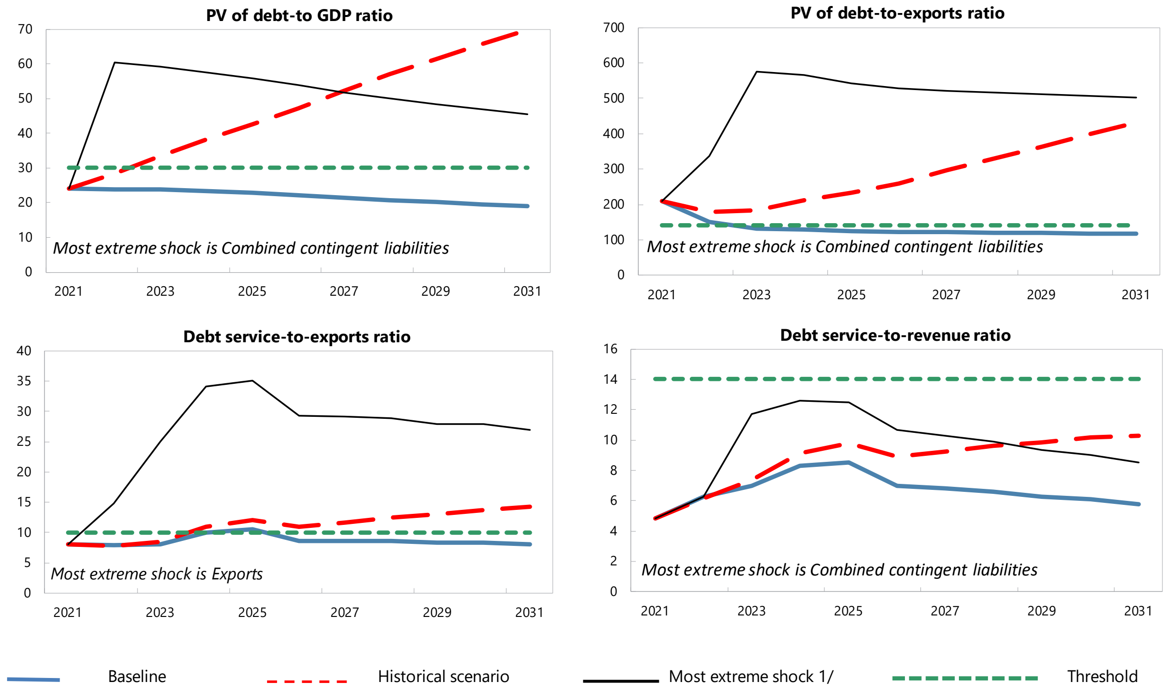
[6] The debt projections reflect the updated assumption that part of the future disbursements of annual IDA allocations are assumed to be under credit terms (with interest rate of 0.75 percent for small economy) instead of grant terms. External financing assumptions are 5 percent for the discount rate, 0.25 percent interest rate for IMF financing, 0.75 percent interest rate for IDA small economy financing, and 2 percent for loans from other creditors. Domestic financing assumptions include the usage of T-bills and ODC's credit to government based on the macroframework.

[7] In the first chart of Figure 2, the blue line shows the baseline of PV of PPG debt consistent with the DSF methodology of presenting all domestic debt at face value. The dotted line of the first chart shows the PV of PPG debt after discounting EMAE's debt to ENCO with a 5 percent discount rate, reflecting the actual situation of the EMAE's debt to ENCO in line with the 2019 repayment agreement which is de facto concessional.

to-growth shock. As its downward trajectory remains intact, predicated on the authorities' commitment to continue its fiscal consolidation, implement EMAE's planned reforms, and borrow externally only on concessional terms at a measured pace, public debt sustainability is preserved but subject to large risks. It would be important to develop an active plan to gradually strengthen STP's debt carrying capacity against a very uncertain global economic backdrop and preserve debt sustainability. Should downside risks materialize and lead to a further deterioration of the debt situation compared to staff's baseline, contingent measures to help safeguard debt sustainability would include additional fiscal efforts and an improved financing mix toward more grants and highly concessional borrowing.

5. **Overall, the DSA analysis highlights the importance of continuing fiscal reforms and maintaining strong policies to ensure debt sustainability.** To mitigate fiscal risks, the country needs to continue with policies including deepening and prioritizing EMAE reforms, continuing fiscal consolidation and revenue mobilization, eschewing non-concessional loans, improving the business environment to attract non-debt flows, strengthening macroeconomic policies, and promoting growth. In addition, contracting new concessional loans and external debt disbursements need to be carefully planned to balance debt sustainability concerns while addressing the country's large investment needs. In this context, the country should strive to finance large projects with non-debt generating means, including by grants. The authorities agree with the staff's assessment and are committed to making good efforts to regularize arrears and maintaining debt sustainability.

Figure 1. São Tomé and Príncipe: Indicators of Public and Publicly Guaranteed External Debt Under Alternatives Scenarios, 2021– 2031



Customization of Default Settings	Size	Interactions
Tailored Tests		
Combined CLs	Yes	
Natural Disasters	No	No
Commodity Prices [2/]	n.a.	n.a.
Market Financing	n.a.	n.a.

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

Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	1.9%	1.9%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	24	24
Avg. grace period	9	9

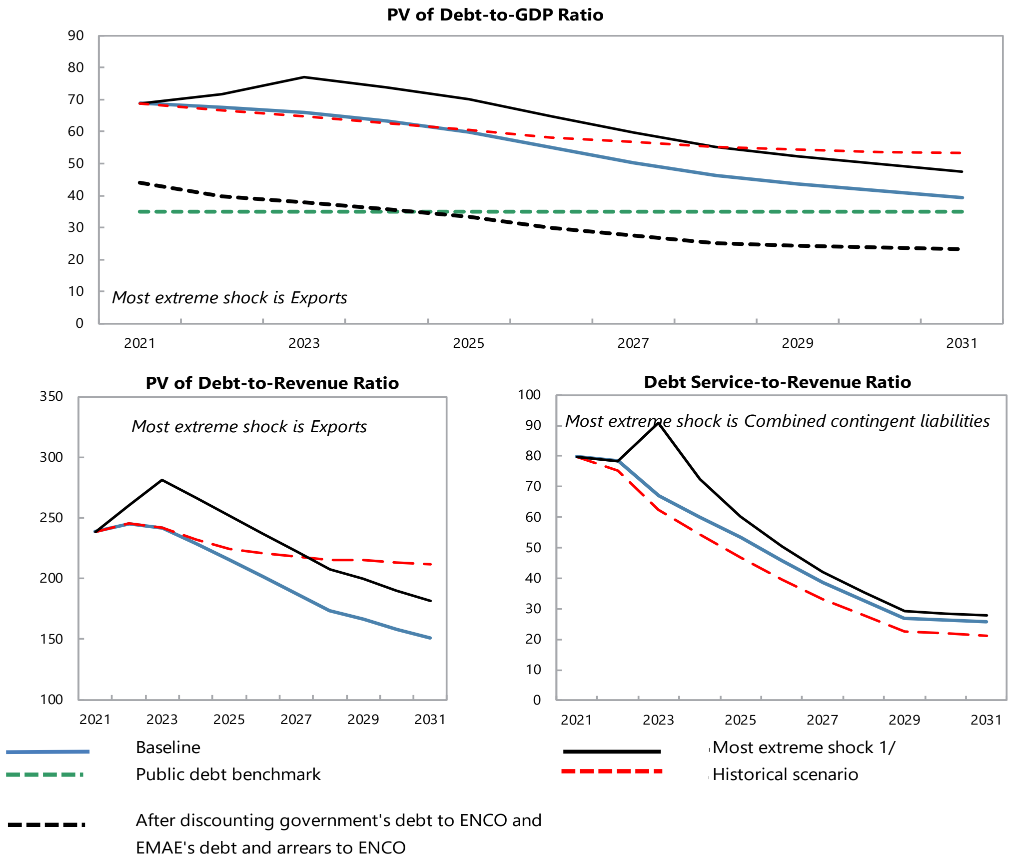
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

[1/] The most extreme stress test is the test that yields the highest ratio in or before 2031. Stress test 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.

Sources: Country authorities; and staff estimates and projections

Figure 2. São Tomé and Príncipe: Indicators of Public Debt Under Alternative Scenarios, 2021– 2031



Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	95%	95%
Domestic medium and long-term	11%	11%
Domestic short-term	313%	52%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	1.4%	1.4%
Avg. maturity (incl. grace period)	29	29
Avg. grace period	9	9
Domestic MLT debt		
Avg. real interest rate on new borrowing	-2.6%	-2.6%
Avg. maturity (incl. grace period)	100	100
Avg. grace period	99	99
Domestic short-term debt		
Avg. real interest rate	-3.0%	-3.0%

* 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.

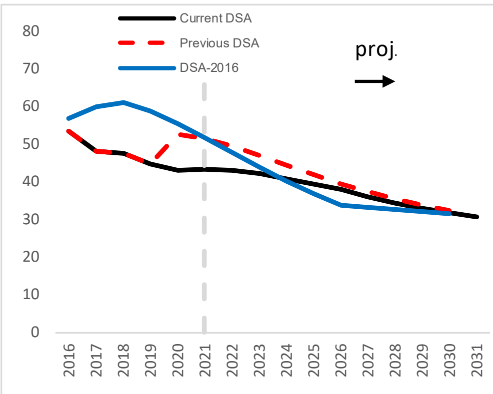
Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2031. 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 exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

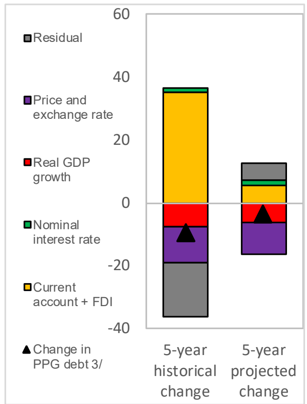
Figure 3. São Tomé and Príncipe: Drivers of Debt Dynamics – Baseline Scenario

External debt

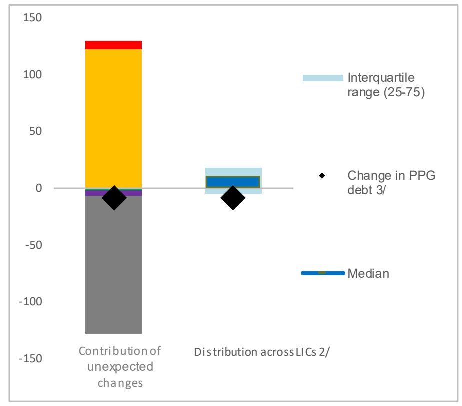
Gross Nominal PPG External Debt
(in percent of GDP; DSA vintages)



Debt-creating flows
(percent of GDP)

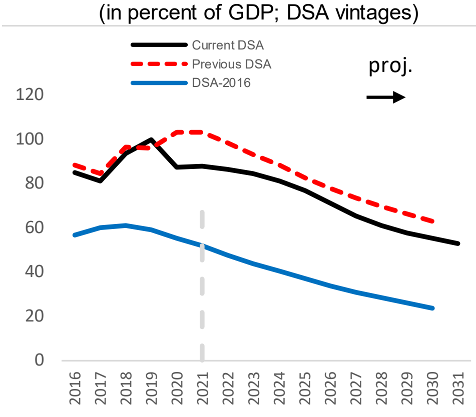


Unexpected Changes in Debt 1/
(past 5 years, percent of GDP)

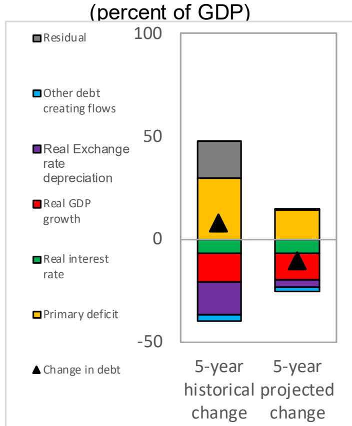


Public debt

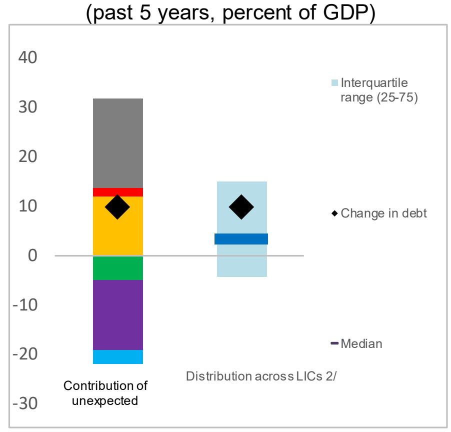
Gross Nominal Public Debt
(in percent of GDP; DSA vintages)



Debt-creating flows
(percent of GDP)



Unexpected Changes in Debt 1/
(past 5 years, percent of GDP)



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

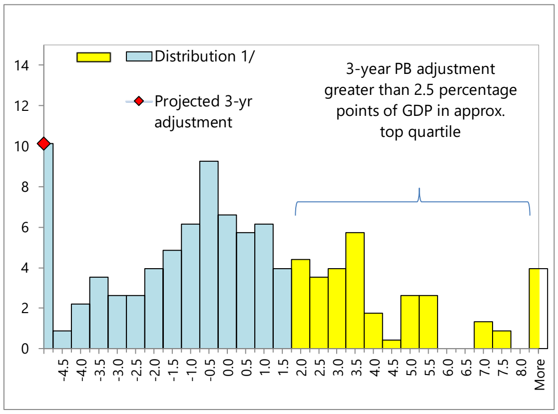
2/ Distribution across LICs for which LIC DSAs were produced.

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.

Sources: Country authorities; and staff estimates and projections.

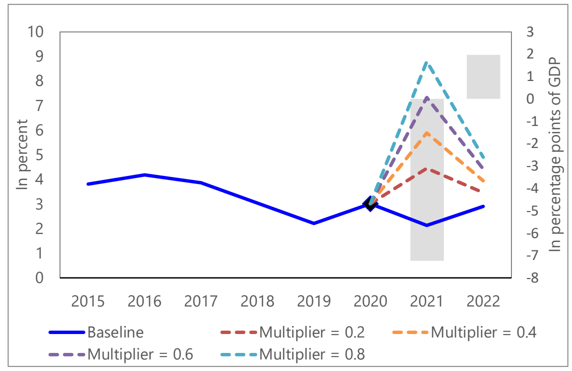
Figure 4. São Tomé and Príncipe: Realism Tools

3-Year Adjustment in Primary Balance
(Percentage points of GDP)



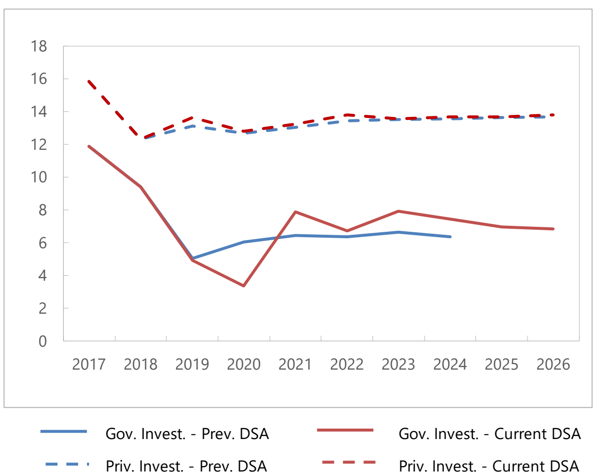
1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

Fiscal Adjustment and Possible Growth Paths 1/



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

Public and Private Investment Rates
(% of GDP)



Sources: Country authorities; and staff estimates and projections.

Contribution to Real GDP growth
(percent, 5-year average)

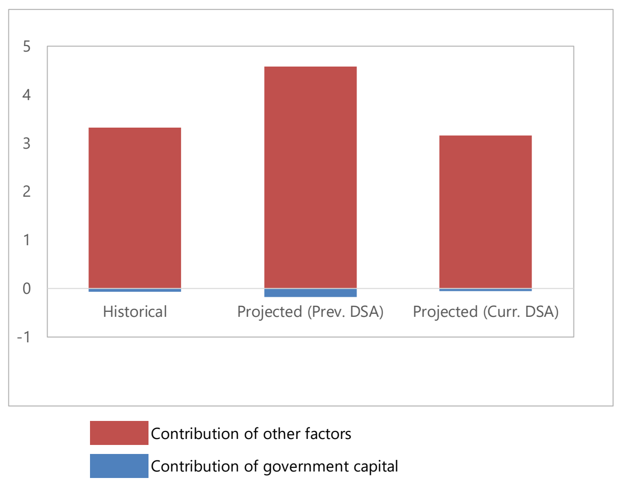
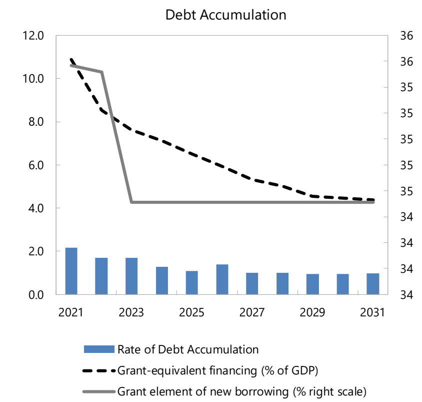


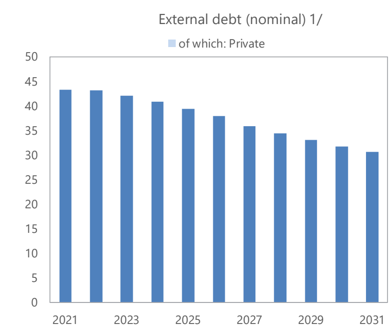
Table 1. São Tomé and Príncipe: External Debt Sustainability Framework, Baseline Scenario, 2019-2041

(In percent of GDP, unless otherwise indicated)

	Actual		Projections								Average 8/	
	2019	2020	2021	2022	2023	2024	2025	2026	2031	2041	Historical	Projections
External debt (nominal) 1/	44.7	43.1	43.3	43.1	42.1	40.8	39.4	37.9	30.6	27.2	43.7	37.5
of which: public and publicly guaranteed (PPG)	44.7	43.1	43.3	43.1	42.1	40.8	39.4	37.9	30.6	27.2	43.7	37.5
Change in external debt	-2.9	-1.7	0.2	-0.2	-1.0	-1.3	-1.4	-1.5	-1.1	-1.8		
Identified net debt-creating flows	3.5	4.9	5.2	0.2	-1.4	-1.8	-1.8	-2.0	-3.0	-1.9	5.3	-1.7
Non-interest current account deficit	11.6	13.2	11.8	7.0	4.9	4.5	4.3	4.3	2.7	2.4	15.1	4.5
Deficit in balance of goods and services	22.0	25.0	23.6	17.8	15.9	15.2	14.2	13.4	10.5	9.6	32.8	13.9
Exports	22.3	10.8	11.5	15.8	18.1	17.9	18.2	18.2	16.2	14.5		
Imports	44.3	35.8	35.1	33.6	34.0	33.1	32.4	31.6	26.6	24.1		
Net current transfers (negative = inflow)	-10.2	-12.2	-12.8	-11.5	-11.5	-10.9	-10.1	-9.4	-7.8	-7.2	-17.4	-9.8
of which: official	-6.4	-10.5	-9.9	-8.3	-8.3	-7.8	-7.0	-6.3	-4.7	-4.3		
Other current account flows (negative = net inflow)	-0.2	0.3	1.0	0.7	0.4	0.3	0.3	0.4	0.1	0.0	-0.3	0.4
Net FDI (negative = inflow)	-7.0	-4.1	-5.7	-5.8	-5.5	-5.4	-5.3	-5.2	-5.0	-3.6	-6.7	-5.3
Endogenous debt dynamics 2/	-1.1	-4.2	-0.9	-0.9	-0.8	-0.9	-0.9	-1.1	-0.8	-0.7		
Contribution from nominal interest rate	0.6	0.2	0.0	0.3	0.5	0.5	0.5	0.4	0.4	0.4		
Contribution from real GDP growth	-1.0	-1.2	-0.8	-1.2	-1.3	-1.4	-1.4	-1.4	-1.2	-1.1		
Contribution from price and exchange rate changes	-0.6	-3.2	...	...	...	...	...	...	...	...		
Residual 3/	-6.4	-6.6	-5.0	-0.4	0.4	0.5	0.5	0.4	1.9	0.2	-4.9	0.5
of which: exceptional financing	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	...	24.6	24.0	23.9	23.8	23.3	22.8	22.2	19.0	17.5		
PV of PPG external debt-to-exports ratio	...	227.6	209.2	151.4	131.4	130.1	124.9	122.2	117.4	120.7		
PPG debt service-to-exports ratio	4.5	5.0	8.0	7.9	8.0	10.0	10.5	8.5	8.0	7.6		
PPG debt service-to-revenue ratio	5.6	2.9	4.9	6.3	7.0	8.3	8.5	7.0	5.8	4.8		
Gross external financing need (Million of U.S. dollars)	24.2	45.9	37.4	13.8	5.4	5.9	7.0	4.9	-11.0	-3.2		
Key macroeconomic assumptions												
Real GDP growth (in percent)	2.2	3.0	2.1	2.9	3.3	3.5	3.7	4.0	3.9	4.1	3.9	3.6
GDP deflator in US dollar terms (change in percent)	1.4	7.6	9.5	4.3	4.2	3.8	3.5	4.4	3.8	1.9	5.4	4.5
Effective interest rate (percent) 4/	1.2	0.5	-0.1	0.6	1.2	1.3	1.3	1.0	1.3	1.6	0.8	1.0
Growth of exports of G&S (US dollar terms, in percent)	-1.9	-46.3	18.4	48.0	23.4	6.4	9.0	8.5	5.5	0.0	12.4	12.8
Growth of imports of G&S (US dollar terms, in percent)	-5.3	-10.4	9.4	2.9	8.9	4.5	5.0	5.8	6.9	0.0	4.7	5.4
Grant element of new public sector borrowing (in percent)	...	...	35.6	35.5	34.5	34.5	34.5	34.5	34.5	34.5	...	34.7
Government revenues (excluding grants, in percent of GDP)	18.0	18.3	18.9	20.0	20.7	21.6	22.3	22.3	22.5	22.8	17.2	21.6
Aid flows (in Million of US dollars) 5/	33.8	85.7	58.0	48.5	40.7	40.6	39.4	38.5	41.9	67.5		
Grant-equivalent financing (in percent of GDP) 6/	...	...	10.9	8.5	7.6	7.1	6.5	5.9	4.4	4.0	...	6.4
Grant-equivalent financing (in percent of external financing) 6/	...	...	86.1	83.2	80.0	79.2	78.0	76.8	76.9	76.3	...	79.3
Nominal GDP (Million of US dollars)	431	477	534	573	616	662	711	772	1,137	2,036		
Nominal dollar GDP growth	3.6	10.8	11.8	7.4	7.6	7.4	7.4	8.5	7.9	6.1	9.5	8.2
Memorandum items:												
PV of external debt 7/	...	24.6	24.0	23.9	23.8	23.3	22.8	22.2	19.0	17.5		
In percent of exports	...	227.6	209.2	151.4	131.4	130.1	124.9	122.2	117.4	120.7		
Total external debt service-to-exports ratio	4.5	5.0	8.0	7.9	8.0	10.0	10.5	8.5	8.0	7.6		
PV of PPG external debt (in Million of US dollars)		117.6	128.0	137.1	146.8	154.6	161.8	171.7	215.8	356.4		
(PVt-PVt-1)/GDPt-1 (in percent)			2.2	1.7	1.7	1.3	1.1	1.4	1.0	1.0		
Non-interest current account deficit that stabilizes debt ratio	14.5	14.8	11.6	7.2	5.9	5.8	5.7	5.8	3.9	4.1		

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





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

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

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

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

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

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

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

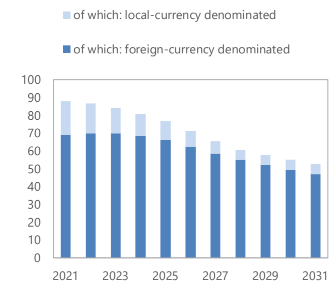
Table 2. São Tomé and Príncipe: Public Sector Debt Sustainability Framework, Baseline Scenario, 2019-2041

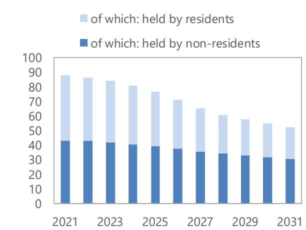
(In percent of GDP, unless otherwise indicated)

	Actual		Projections								Average 6/	
	2019	2020	2021	2022	2023	2024	2025	2026	2031	2041	Historical	Projections
Public sector debt 1/	99.9	87.4	87.9	86.5	84.3	80.9	76.8	71.2	52.6	40.3	74.8	70.8
of which: external debt	44.7	43.1	43.3	43.1	42.1	40.8	39.4	37.9	30.6	27.2	43.7	37.5
Change in public sector debt	6.7	-12.6	0.6	-1.5	-2.2	-3.4	-4.1	-5.6	-2.4	-3.9		
Identified debt-creating flows	0.6	-16.2	0.0	-2.2	-1.9	-3.2	-3.9	-5.5	-2.5	-2.5	-0.8	-3.2
Primary deficit	6.9	-2.3	5.0	3.0	3.4	2.0	1.0	0.1	1.2	-0.5	6.5	1.6
Revenue and grants	24.4	28.0	28.8	27.5	27.3	27.7	27.8	27.3	26.2	26.1	29.3	27.1
of which: grants	6.4	9.7	9.9	7.6	6.6	6.1	5.5	5.0	3.7	3.3		
Primary (noninterest) expenditure	31.4	25.8	33.8	30.5	30.7	29.7	28.8	27.4	27.4	25.6	35.8	28.7
Automatic debt dynamics	-5.6	-13.6	-4.8	-4.7	-4.7	-4.7	-4.5	-5.3	-3.5	-1.9		
Contribution from interest rate/growth differential	-3.8	-4.8	-4.4	-4.0	-3.8	-3.8	-3.7	-3.9	-2.7	-1.3		
of which: contribution from average real interest rate	-1.8	-1.8	-2.6	-1.5	-1.0	-0.9	-0.8	-0.9	-0.6	0.4		
of which: contribution from real GDP growth	-2.0	-2.9	-1.8	-2.5	-2.7	-2.9	-2.9	-2.9	-2.1	-1.7		
Contribution from real exchange rate depreciation	-1.8	-8.8	...	...	...	...	...	...	...	...		
Denominator = 1+g	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Other identified debt-creating flows	-0.8	-0.4	-0.2	-0.5	-0.5	-0.5	-0.4	-0.4	-0.2	-0.1	-0.7	-0.3
Privatization receipts (negative)	0.0	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		
Debt relief (HIPC and other)	-0.8	-0.4	-0.2	-0.5	-0.5	-0.5	-0.4	-0.4	-0.2	-0.1		
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		
Residual	6.1	3.6	0.2	0.1	-1.3	-1.1	-1.0	-1.5	-0.8	-2.1	6.9	-0.8
Sustainability indicators												
PV of public debt-to-GDP ratio 2/	...	68.1	68.8	67.5	66.1	63.4	59.9	55.0	39.5	29.6		
PV of public debt-to-revenue and grants ratio	...	243.0	238.5	245.0	241.8	228.6	215.2	201.6	150.8	113.5		
Debt service-to-revenue and grants ratio 3/	...	...	79.7	78.3	67.1	60.1	53.2	45.7	25.8	24.4		
Gross financing need 4/	7.4	-1.7	27.8	24.0	21.2	18.2	15.4	12.2	7.7	5.8		
Key macroeconomic and fiscal assumptions												
Real GDP growth (in percent)	2.2	3.0	2.1	2.9	3.3	3.5	3.7	4.0	3.9	4.0	3.9	3.6
Average nominal interest rate on external debt (in percent)	1.3	0.5	-0.1	0.6	1.2	1.3	1.3	1.0	1.1	1.4	0.9	1.0
Average real interest rate on domestic debt (in percent)	-6.5	-5.3	-2.1	-0.6	-1.5	-1.7	-1.8	-2.9	-3.0	-0.8	-6.0	-2.3
Real exchange rate depreciation (in percent, + indicates depreciation)	-2.5	-12.4	...	...	...	...	...	...	...	...	-3.7	...
Inflation rate (GDP deflator, in percent)	7.0	5.6	2.7	2.0	2.8	2.9	2.9	3.9	3.8	1.9	6.7	3.3
Growth of real primary spending (deflated by GDP deflator, in percent)	-3.4	-15.4	34.0	-7.1	3.8	0.2	0.8	-1.3	4.3	-1.9	-2.6	4.6
Primary deficit that stabilizes the debt-to-GDP ratio 5/	0.3	10.3	4.4	4.5	5.5	5.4	5.1	5.8	3.7	3.4	2.2	4.7
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		
Memorandum Item												
Primary deficit with HIPC grants and without EMAE loss	2.4	-8.9	4.8	-1.2	-0.6	-1.0	-1.1	-1.2	1.0	-0.5	3.5	0.1
EMAE loss	3.7	6.3	0.0	3.7	3.4	2.5	1.7	0.9	0.0	0.0	1.7	1.1

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

Public sector debt 1/





Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central government plus social security and extra budgetary funds, central bank, government-guaranteed debt. Definition of external debt is Residency-based.

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

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

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

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

Table 3. São Tomé and Príncipe: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2021– 2031

	Projections 1/										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
PV of debt-to GDP ratio											
Baseline	24	24	24	23	23	22	21	21	20	19	19
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	24	28	**33**	**38**	**43**	**47**	**52**	**57**	**61**	**66**	**70**
B. Bound Tests											
B1. Real GDP growth	24	24	25	24	24	23	22	22	21	20	20
B2. Primary balance	24	29	**34**	**33**	**32**	**31**	**30**	29	28	27	27
B3. Exports	24	29	**37**	**36**	**35**	**34**	**33**	**32**	**31**	**30**	29
B4. Other flows 3/	24	29	**35**	**34**	**33**	**32**	**31**	30	29	28	27
B5. One-time 30 percent nominal depreciation	24	30	25	25	24	24	23	22	21	21	20
B6. Combination of B1-B5	24	**33**	**34**	**34**	**33**	**32**	**30**	30	29	28	27
C. Tailored Tests											
C1. Combined contingent liabilities	24	**60**	**59**	**58**	**56**	**54**	**52**	**50**	**48**	**47**	**45**
C2. Natural disaster	24	**31**	**31**	**30**	30	29	28	28	27	26	26
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	30	30	30	30	30	30	30	30	30	30	30
PV of debt-to-exports ratio											
Baseline	**209**	**151**	131	130	125	122	121	120	119	118	117
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	**209**	**179**	**185**	**213**	**234**	**259**	**296**	**330**	**363**	**398**	**431**
B. Bound Tests											
B1. Real GDP growth	**209**	**151**	131	130	125	122	121	120	119	118	117
B2. Primary balance	**209**	**185**	**187**	**185**	**177**	**172**	**170**	**169**	**167**	**165**	**164**
B3. Exports	**209**	**338**	**575**	**567**	**543**	**528**	**522**	**517**	**511**	**506**	**503**
B4. Other flows 3/	**209**	**186**	**190**	**188**	**180**	**175**	**173**	**171**	**170**	**168**	**167**
B5. One-time 30 percent nominal depreciation	**209**	**151**	111	110	106	104	103	102	101	101	100
B6. Combination of B1-B5	**209**	**300**	**177**	**345**	**331**	**322**	**319**	**315**	**312**	**309**	**307**
C. Tailored Tests											
C1. Combined contingent liabilities	**209**	**382**	**326**	**320**	**307**	**297**	**293**	**290**	**286**	**283**	**281**
C2. Natural disaster	**209**	**198**	**172**	**171**	**165**	**162**	**162**	**161**	**161**	**161**	**161**
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	140	140	140	140	140	140	140	140	140	140	140
Debt service-to-exports ratio											
Baseline	8	8	8	10	**10**	9	9	9	8	8	8
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	8	8	8	**11**	**12**	**11**	**12**	**12**	**13**	**14**	**14**
B. Bound Tests											
B1. Real GDP growth	8	8	8	10	**10**	9	9	9	8	8	8
B2. Primary balance	8	8	9	**11**	**12**	10	10	10	9	9	9
B3. Exports	8	**15**	**25**	**34**	**35**	**29**	**29**	**29**	**28**	**28**	**27**
B4. Other flows 3/	8	8	9	**12**	**12**	10	10	10	10	9	9
B5. One-time 30 percent nominal depreciation	8	8	8	9	10	8	8	8	8	8	8
B6. Combination of B1-B5	8	**12**	**18**	**22**	**23**	**19**	**19**	**19**	**18**	**18**	**18**
C. Tailored Tests											
C1. Combined contingent liabilities	8	8	**13**	**15**	**15**	**13**	**13**	**13**	**12**	**12**	**12**
C2. Natural disaster	8	8	9	**11**	**12**	10	10	10	9	9	9
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	10	10	10	10	10	10	10	10	10	10	10
Debt service-to-revenue ratio											
Baseline	5	6	7	8	9	7	7	7	6	6	6
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	5	6	7	9	10	9	9	10	10	10	10
B. Bound Tests											
B1. Real GDP growth	5	6	7	9	9	7	7	7	6	6	6
B2. Primary balance	5	6	8	10	10	8	8	8	7	7	7
B3. Exports	5	6	8	10	10	9	8	8	8	7	7
B4. Other flows 3/	5	6	8	10	10	8	8	8	7	7	7
B5. One-time 30 percent nominal depreciation	5	8	9	10	10	8	8	8	7	7	7
B6. Combination of B1-B5	5	7	8	10	10	8	8	8	7	7	7
C. Tailored Tests											
C1. Combined contingent liabilities	5	6	12	13	12	11	10	10	9	9	8
C2. Natural disaster	5	6	8	9	9	8	8	7	7	7	6
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	14	14	14	14	14	14	14	14	14	14	14

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. São Tomé and Príncipe: Sensitivity Analysis for Key Indicators of Public Debt, 2021–2031

	Projections 1/										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
PV of Debt-to-GDP Ratio											
Baseline	**69**	**67**	**66**	**63**	**60**	**55**	**50**	**46**	**44**	**41**	**39**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	**69**	**67**	**65**	**63**	**60**	**58**	**57**	**55**	**54**	**54**	**53**
B. Bound Tests											
B1. Real GDP growth	**69**	**70**	**70**	**68**	**65**	**60**	**56**	**52**	**49**	**47**	**45**
B2. Primary balance	**69**	**73**	**75**	**70**	**65**	**60**	**55**	**51**	32		**36**
B3. Exports	**69**	**72**	**77**	**74**	**70**	**65**	**60**	**55**	**52**	**50**	**48**
B4. Other flows 3/	**69**	**72**	**75**	**73**	**69**	**63**	**58**	**54**	**51**	**49**	**47**
B5. One-time 30 percent nominal depreciation	**69**	**71**	**68**	**64**	**59**	**53**	**47**	**42**	**39**	**35**	32
B6. Combination of B1-B5	**69**	**72**	**71**	**62**	**58**	**54**	**49**	**45**	**42**	**40**	**38**
C. Tailored Tests											
C1. Combined contingent liabilities	**69**	**76**	**72**	**68**	**64**	**59**	**54**	**50**	**47**	**45**	**43**
C2. Natural disaster	**69**	**75**	**72**	**69**	**65**	**60**	**55**	**51**	**48**	**46**	**44**
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	\	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Public debt benchmark	35	35	35	35	35	35	35	35	35	35	35
PV of Debt-to-Revenue Ratio											
Baseline	239	245	242	229	215	202	187	174	167	158	151
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	239	246	242	232	224	221	218	215	215	213	212
B. Bound Tests											
B1. Real GDP growth	239	252	255	243	231	219	206	193	187	179	172
B2. Primary balance	239	266	275	252	235	220	205	191	122	136	139
B3. Exports	239	260	281	266	252	237	222	207	200	190	181
B4. Other flows 3/	239	262	276	262	247	233	218	203	195	186	178
B5. One-time 30 percent nominal depreciation	239	263	255	236	217	198	179	161	149	136	124
B6. Combination of B1-B5	239	263	260	225	211	198	183	169	162	153	145
C. Tailored Tests											
C1. Combined contingent liabilities	239	275	263	245	230	216	201	188	181	172	165
C2. Natural disaster	239	272	263	246	232	218	204	190	183	175	167
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Debt Service-to-Revenue Ratio											
Baseline	80	78	67	60	53	46	39	33	27	26	26
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	80	75	62	54	47	39	33	28	23	22	21
B. Bound Tests											
B1. Real GDP growth	80	79	69	62	55	47	40	34	28	28	27
B2. Primary balance	80	78	83	84	66	54	44	37	30	-23	1
B3. Exports	80	78	67	61	54	47	39	33	27	27	26
B4. Other flows 3/	80	78	68	61	54	46	39	33	27	27	26
B5. One-time 30 percent nominal depreciation	80	75	65	59	52	45	38	32	27	26	25
B6. Combination of B1-B5	80	76	66	60	52	45	38	32	26	26	25
C. Tailored Tests											
C1. Combined contingent liabilities	80	78	91	72	60	50	42	35	29	28	28
C2. Natural disaster	80	79	87	71	60	51	43	37	30	30	29
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Sources: Country authorities; and staff estimates and projections.

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

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

3/ Includes official and private transfers and FDI.