DEMOCRATIC REPUBLIC OF SÃO TOMÉ AND PRÍNCIPE

REQUEST FOR DISBURSEMENT UNDER THE RAPID CREDIT FACILITY— DEBT SUSTAINABILITY ANALYSIS[1]

April 14, 2020

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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*
Macroeconomic projections	Reflecting recent data and the COVID-19 shock, the projections have been updated. (see below)
Financing strategy	Other than the RCF, the financing gap will be filled with grants by other donors, including the World Bank. The authorities have committed to prioritize spending to match available resources.
Realism tools flagged	n.a.
Mechanical risk rating under the external DSA	*In debt distress*
Mechanical risk rating under the public DSA	*In debt distress*

[1] The DSA update was prepared by IMF and World Bank staffs in collaboration with the authorities of São Tomé and Príncipe. The analysis updates the previous Joint DSA dated September 18, 2019 (IMF Country Report No. 19/315).

The country remains in debt distress due to prolonged unsettled external arrears.
In addition, the significant domestic arrears of the large loss-making state-owned utility company (EMAE) reflect the severe liquidity constraints of the public sector. Staff assesses that the country has the capacity to repay the external arrears over time, as indicated by the external debt ratios. While the present value (PV) of external PPG debt-to-exports ratio breaches its threshold in 2020 due to the COVID-19 shock, all other external PPG debt burden indicators remain well below their thresholds throughout the projection horizon in the baseline scenario.[2] While the PV of total public and publicly guaranteed (PPG) debt is currently above the high-risk benchmark, it can be deemed sustainable since the PV of PPG debt falls below the benchmark when accounting for the terms of formalized concessional debt of EMAE and the government to the country's fuel supplier, ENCO. Furthermore, the country is committed to implement EMAE's planned reforms and borrow externally only on concessional terms at a measured pace. The likelihood of contingent liabilities materializing, particularly ENCO's arrears to its parent company Sonangol (a state-owned company of Angola), remains relatively low, given the close diplomatic ties between the two countries.
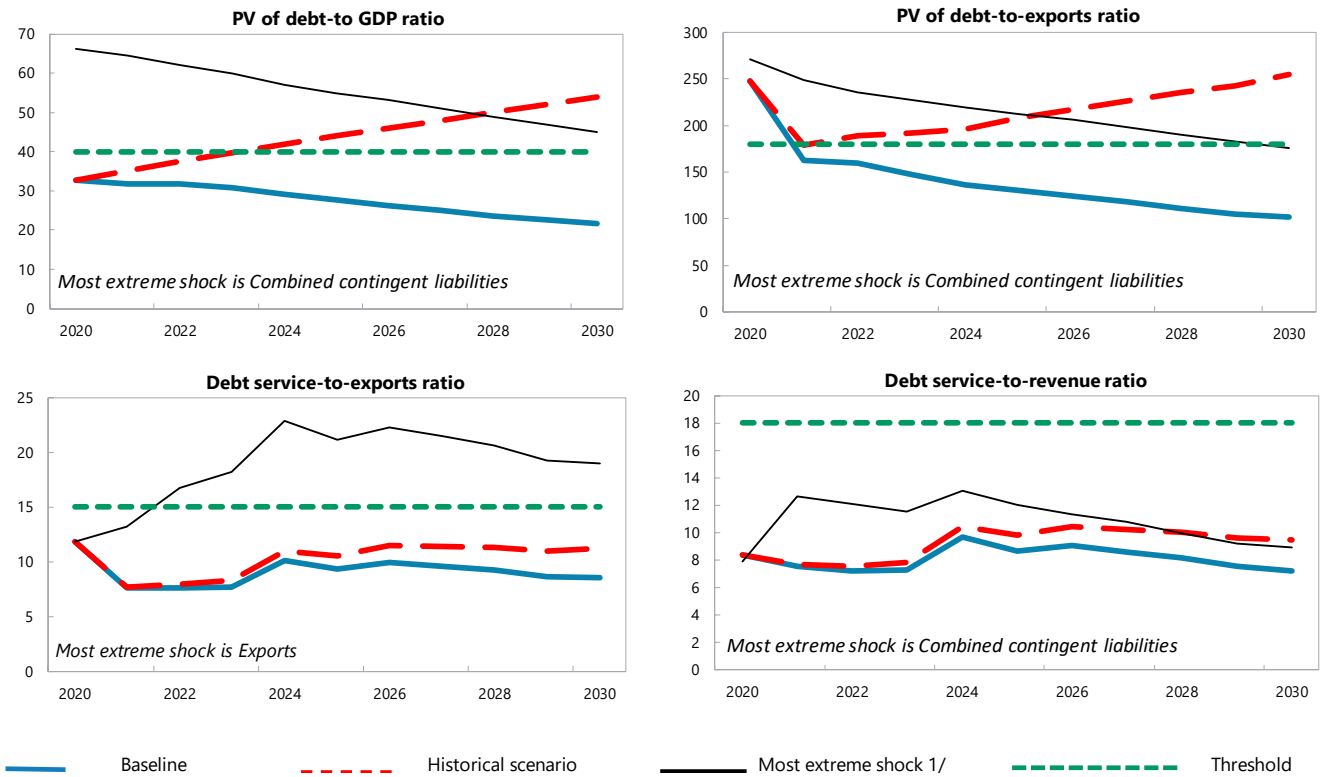
Macroeconomic projections: The COVID-19 shock is expected to lead to a contraction of the economy in 2020 with immediate and large BOP and fiscal financing needs. Real GDP growth in 2020 is projected to decline to -6.0 percent, compared with pre-crisis projections of 3.5 percent. Average real growth and inflation are both revised down to 4 percent and 3 percent, respectively (compared to 4.3 percent and 4 percent in the previous DSA), throughout the 2020-40 projection horizon. Export and import growth have also been revised slightly downward throughout the projection horizon. The domestic primary budget deficit is expected to reach 5.6 percent of GDP in 2020 compared with pre-COVID-19 projections of 1.7 percent of GDP, and now averages 1.1 percent of GDP through the projection horizon compared to 0.9 percent in the previous DSA. The larger financing needs in 2020 are projected to be covered by the RCF disbursement and other international support in the form of grants.[3] The economy is expected to recover in 2021 to close to 2019 levels with the implementation of long-delayed construction projects and a recovery in tourism and global demand.

The DSA follows the IMF and World Bank Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework (DSF) for Low-Income Countries (LICs) (February 2018). The country's Composite Indicator score is 2.68 and its debt carrying capacity is assessed to be medium.

[2] World Bank staff simulated a scenario assuming full disbursement of annual IDA allocations under credit terms, which did not affect the risk of external debt distress rating.

[3] Compared with the previous DSA, the reduction of arrears to domestic suppliers in 2019 of US$15 million dollars (3½ percent of GDP) by incorporating these into the 2019 budget largely offset the proposed borrowing from the IMF's Rapid Credit Facility in 2020 to combat the COVID-19 pandemic.

Figure 1. São Tomé and Príncipe: Indicators of External Debt Under Alternative Scenarios, 2020–2030

PV of debt-to GDP ratio

Most extreme shock is Combined contingent liabilities

PV of debt-to-exports ratio

Most extreme shock is Combined contingent liabilities

Debt service-to-exports ratio

Most extreme shock is Exports

Debt service-to-revenue ratio

Most extreme shock is Combined contingent liabilities

| Baseline | Historical scenario | Most extreme shock 1/ | Threshold |

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.

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)	23	23
Avg. grace period	9	9

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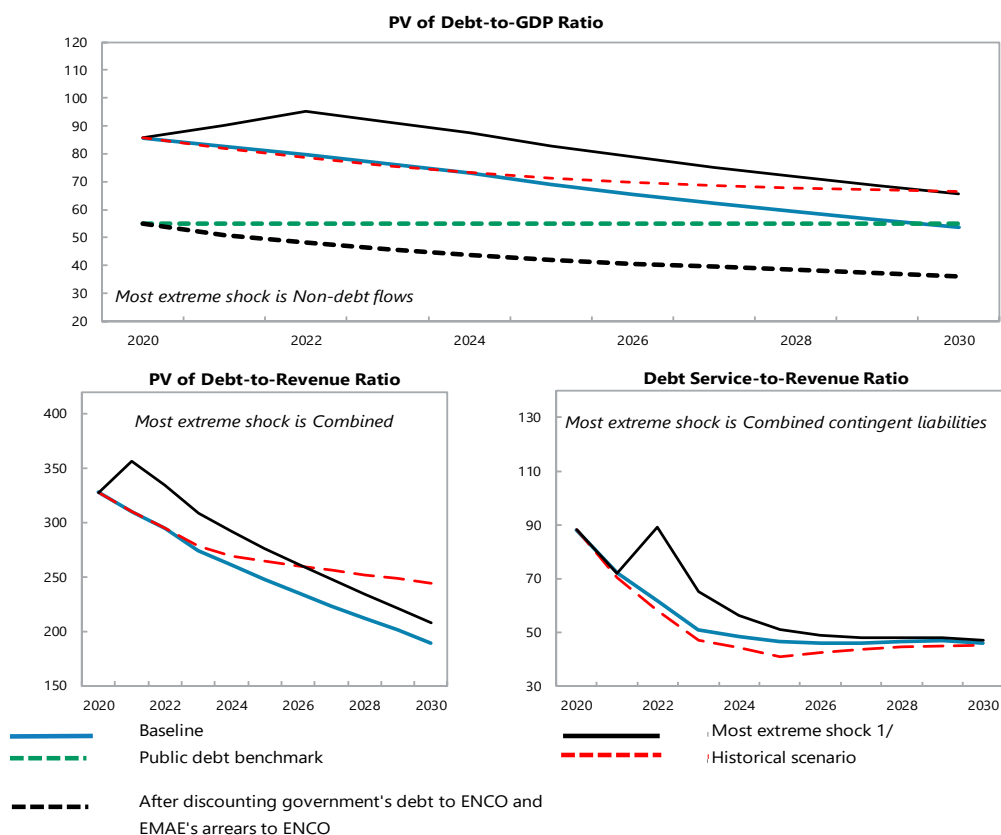
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

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 2030. 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 exterme 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. São Tomé and Príncipe: Indicators of Public Debt Under Alternative Scenarios, 2020–2030
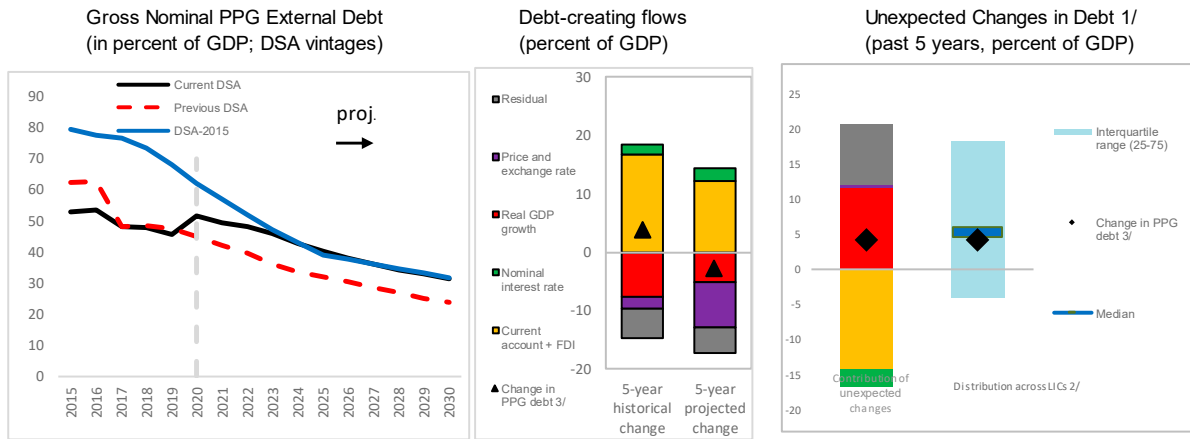
PV of Debt-to-GDP Ratio

Most extreme shock is Non-debt flows

PV of Debt-to-Revenue Ratio

Most extreme shock is Combined

Debt Service-to-Revenue Ratio

Most extreme shock is Combined contingent liabilities

—— Baseline	—— Most extreme shock 1/
– – – Public debt benchmark	– – – Historical scenario
– – – After discounting government's debt to ENCO and EMAE's arrears to ENCO	

Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	33%	33%
Domestic medium and long-term	12%	12%
Domestic short-term	179%	55%
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)	23	23
Avg. grace period	9	9
Domestic MLT debt		
Avg. real interest rate on new borrowing	-2.9%	-2.9%
Avg. maturity (incl. grace period)	100	100
Avg. grace period	99	99
Domestic short-term debt		
Avg. real interest rate	-2.0%	-2.0%

* 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 2030. 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

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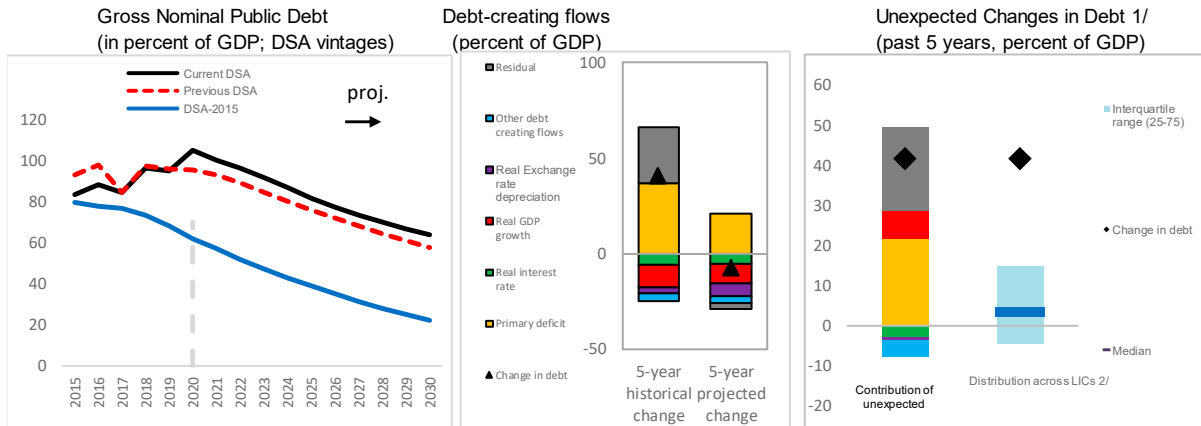
1/ Difference between anticipated and actual contributions on debt ratios.

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.

Figure 4. São Tomé and Príncipe: Realism Tools

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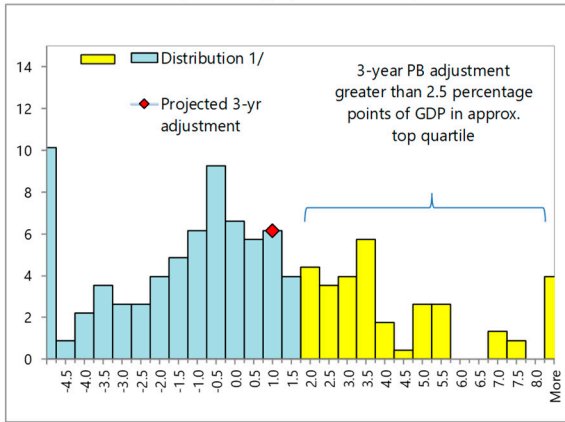
1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

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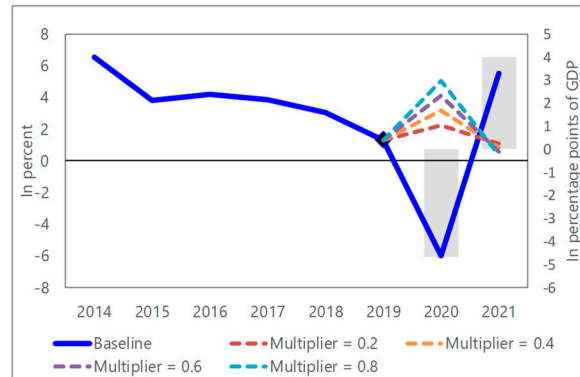
1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

Public and Private Investment Rates
(% of GDP)
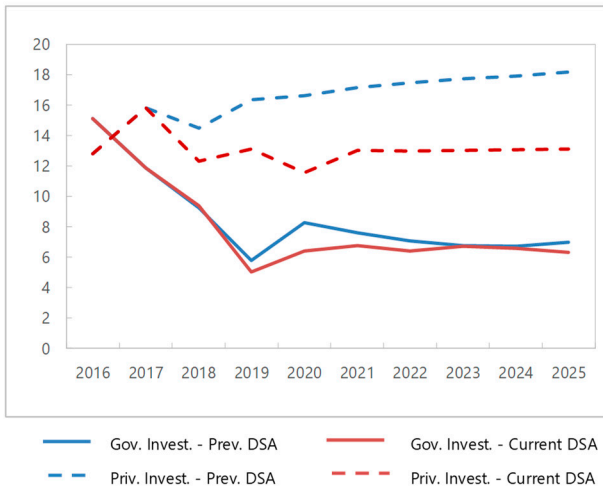
Contribution to Real GDP growth
(percent, 5-year average)

Table 1. São Tomé and Príncipe: External Debt Sustainability Framework, Baseline Scenario, 2018–2040

(In percent of GDP, unless otherwise indicated)

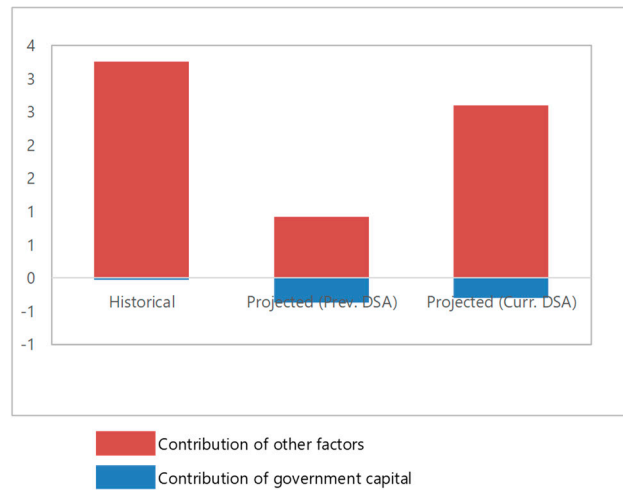|	Actual								Projections					Average 8/		Residency-based
	2018	2019	2020	2021	2022	2023	2024	2025	2030	2040				Historical	Projections	
External debt (nominal) 1/	47.7	45.7	51.7	49.4	48.2	45.8	42.8	40.2	31.4	27.0				41.8	41.0	
of which: public and publicly guaranteed (PPG)	47.7	45.7	51.7	49.4	48.2	45.8	42.8	40.2	31.4	27.0				41.8	41.0	**Yes**
Change in external debt	-0.5	-2.0	6.0	-2.3	-1.2	-2.4	-3.0	-2.6	-1.4	0.2						
Identified net debt-creating flows	-1.1	5.3	10.0	0.2	1.0	-0.5	-1.4	-1.1	-0.8	-1.2				4.5	0.3	
Non-interest current account deficit	8.4	11.9	11.3	8.6	8.3	7.1	6.5	6.8	7.0	5.0				15.7	7.6	
Deficit in balance of goods and services	21.2	22.4	22.5	18.8	17.8	16.5	15.7	15.3	13.9	11.7				34.9	16.2	
Exports	23.6	22.8	13.2	19.6	19.8	20.8	21.4	21.2	21.2	20.6						
Imports	44.8	45.2	35.7	38.3	37.6	37.3	37.0	36.5	35.1	32.3						
Net current transfers (negative = inflow)	-12.6	-10.3	-11.1	-10.2	-9.6	-9.6	-9.2	-8.6	-7.0	-6.7				-18.8	-8.7	
of which: official	-8.7	-6.6	-7.5	-6.7	-6.1	-6.1	-5.6	-5.1	-3.4	-3.1						
Other current account flows (negative = net inflow)	-0.2	-0.2	-0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0				-0.4	0.1	
Net FDI (negative = inflow)	-5.1	-6.4	-4.6	-6.3	-6.2	-6.2	-6.3	-6.6	-6.8	-5.5				-8.7	-6.4	
Endogenous debt dynamics 2/	-4.4	-0.1	3.3	-2.1	-1.2	-1.4	-1.5	-1.4	-1.0	-0.7						
Contribution from nominal interest rate	0.2	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4						
Contribution from real GDP growth	-1.3	-0.6	2.8	-2.6	-1.6	-1.8	-1.9	-1.8	-1.4	-1.1						
Contribution from price and exchange rate changes	-3.3	-0.1	…	…	…	…	…	…	…	…						
Residual 3/	0.5	-7.3	-4.0	-2.5	-2.2	-1.9	-1.6	-1.5	-0.6	1.4				-3.1	-1.6	
of which exceptional financing	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	…	27.9	32.7	31.8	31.6	30.7	29.1	27.7	21.6	16.7						
PV of PPG external debt-to-exports ratio	…	122.1	247.3	162.5	159.5	147.6	136.1	130.6	101.7	81.3						
PPG debt service-to-exports ratio	2.6	4.5	11.8	7.6	7.7	7.7	10.1	9.3	8.5	4.9						
PPG debt service-to-revenue ratio	3.7	5.6	8.4	7.6	7.2	7.3	9.7	8.7	7.2	3.3						
Gross external financing need (Million of U.S. dollars)	16.5	27.4	33.7	17.3	17.5	12.7	12.6	13.2	17.1	8.2						
Key macroeconomic assumptions																
Real GDP growth (in percent)	3.0	1.3	-6.0	5.5	3.5	4.0	4.5	4.5	4.5	4.5				4.2	3.5	
GDP deflator in US dollar terms (change in percent)	7.3	0.2	3.0	4.1	3.5	3.2	3.0	3.0	2.9	2.0				4.4	3.1	
Effective interest rate (percent) 4/	0.4	1.2	1.0	0.9	1.0	1.0	1.0	1.1	1.3	1.6				0.9	1.1	
Growth of exports of G&S (US dollar terms, in percent)	13.9	-1.8	-44.0	62.7	8.6	12.4	10.7	6.8	6.0	6.3				19.5	8.6	
Growth of imports of G&S (US dollar terms, in percent)	-3.6	2.5	-23.6	17.9	5.2	6.4	6.8	6.2	6.8	4.9				7.5	4.7	
Grant element of new public sector borrowing (in percent)	…	…	36.6	35.6	35.6	34.5	34.5	34.5	34.5	34.5				…	34.9	
Government revenues (excluding grants, in percent of GDP)	16.8	18.5	18.7	19.6	21.1	21.9	22.4	22.8	25.0	30.5				17.7	22.4	
Aid flows (in Million of US dollars) 5/	40.5	31.1	48.2	36.7	34.5	31.3	31.2	30.3	29.6	51.5						
Grant-equivalent financing (in percent of GDP) 6/	…	…	9.8	8.1	7.2	6.8	6.3	5.8	4.1	3.8				…	6.1	
Grant-equivalent financing (in percent of external financing) 6/	…	…	71.0	79.9	78.2	83.8	82.8	81.5	75.9	74.5				…	78.8	
Nominal GDP (Million of US dollars)	416	422	409	448	480	516	555	597	858	1,639						
Nominal dollar GDP growth	10.6	1.5	-3.2	9.8	7.1	7.3	7.6	7.6	7.5	6.6				8.7	6.7	
Memorandum items:																
PV of external debt 7/	…	27.9	32.7	31.8	31.6	30.7	29.1	27.7	21.6	16.7						
In percent of exports	…	122.1	247.3	162.5	159.5	147.6	136.1	130.6	101.7	81.3						
Total external debt service-to-exports ratio	2.6	4.5	11.8	7.6	7.7	7.7	10.1	9.3	8.5	4.9						
PV of PPG external debt (in Million of US dollars)		117.6	133.4	142.6	152.0	158.2	161.3	165.4	185.0	274.4						
(PVt-PVt-1)/GDPt-1 (in percent)			3.8	2.2	2.1	1.3	0.6	0.7	0.6	1.2						
Non-interest current account deficit that stabilizes debt ratio	9.0	13.9	5.3	10.9	9.5	9.5	9.4	9.4	8.4	4.8						

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) + 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.
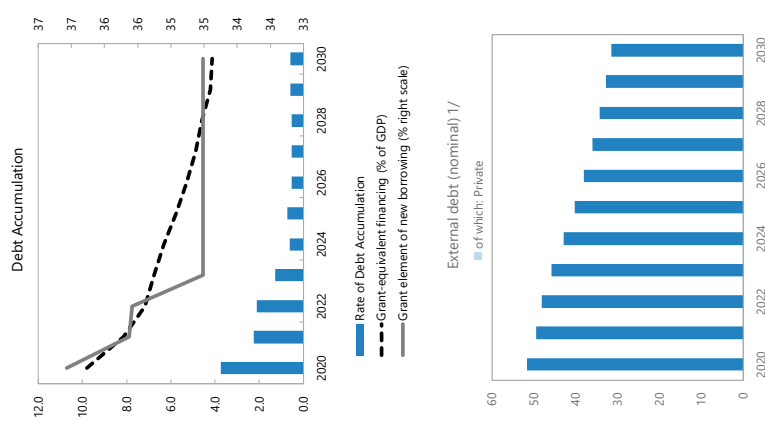
Definition of external/domestic debt — Residency-based

Is there a material difference between the two criteria? — Yes

Debt Accumulation

- Rate of Debt Accumulation
- Grant-equivalent financing (% of GDP)
- Grant-element of new borrowing (% right scale)

External debt (nominal) 1/

- of which: Private

Table 2. São Tomé and Príncipe: Public Sector Debt Sustainability Framework, Baseline Scenario, 2018–2040

(In percent of GDP, unless otherwise indicated)

	Actual		Projections								Average 6/	
	2018	2019	2020	2021	2022	2023	2024	2025	2030	2040	Historical	Projections
Public sector debt 1/	96.2	94.8	104.9	100.2	96.4	91.6	86.9	81.6	63.7	59.9	64.7	83.0
of which: external debt	47.7	45.7	51.7	49.4	48.2	45.8	42.8	40.2	31.4	27.0	41.8	41.0
Change in public sector debt	11.9	-1.3	10.1	-4.7	-3.8	-4.8	-4.7	-5.4	-3.0	9.6		
Identified debt-creating flows	6.0	-0.5	10.9	-3.9	-3.2	-4.3	-4.3	-5.0	-3.1	9.2	3.1	-2.6
Primary deficit	8.0	4.2	8.9	4.9	3.2	2.1	2.0	0.9	1.2	11.9	7.6	2.5
Revenue and grants	25.2	25.0	26.2	26.6	27.1	28.0	28.0	27.9	28.4	33.6	30.8	27.6
of which: grants	8.3	6.6	7.5	7.0	6.1	6.1	5.6	5.1	3.4	3.1		
Primary (noninterest) expenditure	33.2	29.3	35.0	31.5	30.3	30.0	30.0	28.8	29.6	45.5	38.4	30.2
Automatic debt dynamics	-1.7	-3.9	2.8	-8.1	-5.7	-5.8	-5.7	-5.4	-4.0	-2.6		
Contribution from interest rate/growth differential	-4.2	-2.9	5.5	-6.7	-4.8	-4.9	-5.0	-4.7	-3.6	-2.6		
of which: contribution from average real interest rate	-1.7	-1.7	-0.5	-1.3	-1.4	-1.2	-1.0	-1.0	-0.7	-0.4		
of which: contribution from real GDP growth	-2.5	-1.2	6.1	-5.5	-3.4	-3.7	-3.9	-3.7	-2.9	-2.2		
Contribution from real exchange rate depreciation	2.5	-1.0	...	...	...	...	...	...	...	...		
Denominator = 1+g	1.0	1.0	0.9	1.1	1.0	1.0	1.0	1.0	1.0	1.0		
Other identified debt-creating flows	-0.3	-0.8	-0.8	-0.7	-0.6	-0.6	-0.6	-0.5	-0.3	-0.1	-0.8	-0.5
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)	-0.3	-0.8	-0.8	-0.7	-0.6	-0.6	-0.6	-0.5	-0.3	-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	5.9	-0.8	-3.5	-2.1	-1.6	-1.4	-1.1	-1.1	-0.3	0.4	3.2	-1.2
Sustainability indicators												
PV of public debt-to-GDP ratio 2/	...	77.2	85.7	82.6	79.8	76.5	73.2	69.0	53.8	49.7		
PV of public debt-to-revenue and grants ratio	...	308.4	327.5	309.9	294.3	273.7	261.0	247.6	189.3	147.7		
Debt service-to-revenue and grants ratio 3/	...	...	88.2	72.1	61.7	51.0	48.6	46.7	46.2	39.3		
Gross financing need 4/	8.5	5.2	31.1	23.4	19.3	15.7	15.1	13.4	14.0	25.0		
Key macroeconomic and fiscal assumptions												
Real GDP growth (in percent)	3.0	1.3	-6.0	5.5	3.5	4.0	4.5	4.5	4.5	4.5	4.2	3.5
Average nominal interest rate on external debt (in percent)	0.4	1.3	1.0	0.9	1.0	1.0	1.0	1.1	1.3	1.6	0.9	1.1
Average real interest rate on domestic debt (in percent)	-2.5	-5.4	-2.8	-2.9	-2.9	-2.8	-2.7	-2.7	-2.8	-2.0	-6.4	-2.8
Real exchange rate depreciation (in percent, + indicates depreciation)	3.8	-1.4	...	...	...	...	...	...	...	...	-2.3	...
Inflation rate (GDP deflator, in percent)	2.6	5.7	3.5	3.0	3.0	2.9	2.8	2.8	2.9	2.0	7.3	2.9
Growth of real primary spending (deflated by GDP deflator, in percent)	-0.2	-10.7	12.6	-5.1	-0.6	3.2	4.5	0.3	6.1	37.7	-0.2	3.7
Primary deficit that stabilizes the debt-to-GDP ratio 5/	-3.9	5.5	-1.2	9.5	7.0	6.9	6.7	6.3	4.2	2.3	4.0	5.4
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	4.4	-0.4 #	3.9	-0.5	-1.0	-0.9	0.1	-0.8	0.9	11.8	5.6	0.4
EMAE loss	3.3	3.8	4.2	4.7	3.6	2.4	1.3	1.2	0.0	0.0	1.2	1.6

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, 2020–2030

	Projections 1/										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PV of debt-to GDP ratio											
Baseline	33	32	32	31	29	28	26	25	24	23	22
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	33	35	37	40	42	44	46	48	50	52	54
B. Bound Tests											
B1. Real GDP growth	33	33	34	33	31	29	28	26	25	24	23
B2. Primary balance	33	36	42	40	38	37	35	33	32	31	29
B3. Exports	33	37	44	42	40	39	37	35	34	32	31
B4. Other flows 3/	33	40	47	45	43	42	40	38	36	35	33
B5. One-time 30 percent nominal depreciation	33	40	35	34	32	30	29	27	26	25	23
B6. Combination of B1-B5	33	44	46	45	43	41	39	37	36	34	33
C. Tailored Tests											
C1. Combined contingent liabilities	33	75	74	72	69	66	63	61	59	56	54
C2. Natural disaster	33	39	39	38	36	35	33	32	31	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.
Threshold	40	40	40	40	40	40	40	40	40	40	40
PV of debt-to-exports ratio											
Baseline	247	163	160	148	136	131	124	118	111	105	102
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	247	179	189	191	196	208	218	227	235	242	255
B. Bound Tests											
B1. Real GDP growth	247	163	160	148	136	131	124	118	111	105	102
B2. Primary balance	247	185	210	194	180	173	166	158	150	142	138
B3. Exports	247	329	437	405	375	362	346	330	313	297	289
B4. Other flows 3/	247	202	236	219	203	196	188	179	170	162	157
B5. One-time 30 percent nominal depreciation	247	163	141	130	120	115	109	103	97	91	88
B6. Combination of B1-B5	247	316	215	309	287	276	264	252	239	227	221
C. Tailored Tests											
C1. Combined contingent liabilities	247	385	373	345	322	312	300	288	275	262	256
C2. Natural disaster	247	200	197	183	171	165	159	152	146	139	136
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	180	180	180	180	180	180	180	180	180	180	180
Debt service-to-exports ratio											
Baseline	12	8	8	8	10	9	10	10	9	9	9
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	12	8	8	8	11	11	11	11	11	11	11
B. Bound Tests											
B1. Real GDP growth	12	8	8	8	10	9	10	10	9	9	9
B2. Primary balance	12	8	8	9	11	10	11	11	10	9	9
B3. Exports	12	13	17	18	23	21	22	21	21	19	19
B4. Other flows 3/	12	8	9	10	12	11	11	11	11	10	10
B5. One-time 30 percent nominal depreciation	12	8	8	7	10	9	10	9	9	8	8
B6. Combination of B1-B5	12	12	14	14	18	16	17	17	16	15	15
C. Tailored Tests											
C1. Combined contingent liabilities	12	8	13	13	15	14	14	14	13	12	12
C2. Natural disaster	12	8	9	9	11	10	11	11	10	10	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	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	8	8	7	7	10	9	9	9	8	8	7
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	8	8	8	8	10	10	10	10	10	10	10
B. Bound Tests											
B1. Real GDP growth	8	8	8	8	10	9	10	9	9	8	8
B2. Primary balance	8	8	8	8	11	10	10	9	9	8	8
B3. Exports	8	8	8	9	11	10	10	10	9	9	8
B4. Other flows 3/	8	8	8	9	11	10	10	10	9	9	8
B5. One-time 30 percent nominal depreciation	8	10	9	9	12	10	11	10	10	9	9
B6. Combination of B1-B5	8	8	9	9	12	11	11	10	10	9	9
C. Tailored Tests											
C1. Combined contingent liabilities	8	8	12	12	14	13	13	12	11	11	10
C2. Natural disaster	8	8	8	8	10	9	10	9	9	8	8
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	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. São Tomé and Príncipe: Sensitivity Analysis for Key Indicators of Public Debt, 2020–2030

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
					Projections 1/						
PV of Debt-to-GDP Ratio											
Baseline	86	83	80	77	73	69	65	62	59	56	54
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	86	82	79	76	73	71	70	69	68	67	67
B. Bound Tests											
B1. Real GDP growth	86	87	86	84	81	77	74	71	69	66	64
B2. Primary balance	86	89	93	88	83	78	74	70	67	63	60
B3. Exports	86	88	91	88	84	80	76	72	69	66	63
B4. Other flows 3/	86	90	95	91	87	83	79	75	72	69	66
B5. One-time 30 percent nominal depreciation	86	87	82	78	73	67	62	57	53	48	44
B6. Combination of B1-B5	86	86	85	76	72	67	63	60	57	54	51
C. Tailored Tests											
C1. Combined contingent liabilities	86	95	91	86	82	77	73	69	66	62	59
C2. Natural disaster	86	93	89	85	81	77	73	69	66	63	60
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.
Public debt benchmark	55	55	55	55	55	55	55	55	55	55	55
PV of Debt-to-Revenue Ratio											
Baseline	328	310	294	274	261	248	235	224	212	201	189
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	328	310	295	278	269	265	260	256	252	249	244
B. Bound Tests											
B1. Real GDP growth	328	323	314	295	285	273	263	253	243	234	224
B2. Primary balance	328	333	342	315	298	281	266	252	238	226	212
B3. Exports	328	330	337	314	300	286	272	259	246	234	221
B4. Other flows 3/	328	339	351	327	312	297	283	270	257	245	231
B5. One-time 30 percent nominal depreciation	328	334	309	283	264	245	226	208	191	174	158
B6. Combination of B1-B5	328	323	313	275	258	241	227	215	203	191	179
C. Tailored Tests											
C1. Combined contingent liabilities	328	357	334	308	292	276	261	248	234	221	208
C2. Natural disaster	328	347	327	303	289	274	260	247	235	223	210
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	88	72	62	51	49	47	46	46	47	47	46
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	88	71	58	47	44	41	42	44	45	45	45
B. Bound Tests											
B1. Real GDP growth	88	75	66	57	55	54	54	54	55	56	55
B2. Primary balance	88	72	75	75	62	54	51	49	49	49	48
B3. Exports	88	72	62	52	50	48	47	47	47	48	47
B4. Other flows 3/	88	72	62	52	50	48	47	47	48	48	47
B5. One-time 30 percent nominal depreciation	88	69	60	48	48	46	46	45	46	46	45
B6. Combination of B1-B5	88	71	61	57	51	46	45	45	46	46	45
C. Tailored Tests											
C1. Combined contingent liabilities	88	72	89	65	56	51	49	48	48	48	47
C2. Natural disaster	88	73	82	63	56	52	50	49	50	50	49
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.