INTERNATIONAL MONETARY FUND

DEMOCRATIC REPUBLIC OF SÃO TOMÉ AND PRÍNCIPE

JOINT IMF/WORLD BANK DEBT SUSTAINABILITY ANALYSIS[1]

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Approved By
Sharmini Coorey and Dhaneshwar Ghura (IMF) and Marcelo Giugale and Jeffrey Lewis (IDA)

Prepared by:
International Monetary Fund and International Development Association

São Tomé & Príncipe remains at a high risk of debt distress. The PV of debt-to-exports ratio remains above the country-specific indicative threshold for a prolonged period of time under the baseline scenario.[2] *Under the baseline, São Tomé & Principe's overall external sector debt indicators are elevated in the short term but are expected to show a decreasing trend over the longer run. Taking into account expected commercial oil production beginning in 2015 and associated foreign direct investment, the projected debt profile is consistent with manageable—if high risk—debt dynamics. Additional debt will further heighten the risks to external sustainability. All debt indicators deteriorate significantly under weaker growth and export assumptions. Uncertainties surrounding the outlook for oil production underscore the importance of strengthening fiscal performance. Under a non-oil scenario, reaching a sustainable debt level would require additional fiscal adjustment of 2 percent of GDP in the medium term. This also calls for (i) improving public financial and debt management; (ii) fiscal financing solely on the basis of grants and highly concessional borrowing; and (iii) implementing a comprehensive strategy to reduce the cost of doing business, attract investment, and broaden the export base.*

[1] The DSA was prepared by IMF and World Bank staff in collaboration with the Saotomean authorities. The analysis updates the previous Joint DSA dated February 18, 2009 (IMF Country Report No. 09/106). The DSA follows the IMF and World Bank Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework for Low-Income Countries (January 22, 2010).

[2] São Tomé & Príncipe is classified as a "Weak Performer" based on the three-year average of IDA's Country Policy and Institutional Assessment (CPIA) index. Under the joint IDA/IMF debt sustainability framework, the thresholds for "Weak Performer" are: 30 percent for the present value of debt-to-GDP ratio, 100 percent for present value of debt-to-exports ratio, 15 percent for the debt service-to-exports ratio, 200 percent for present value of debt-to-revenue ratio, and 25 percent of debt service-to-revenue ratio excluding grants.

BACKGROUND

1. São Tomé and Príncipe reached the completion point under the enhanced HIPC initiative in March 2007, received topping-up assistance in December 2007, and benefited from HIPC/MDRI debt relief. MDRI, in particular, brought substantial debt service savings, since 54 percent of total debt before the HIPC completion point was with IDA, AfDB, and IMF. Debt relief from Paris Club members also helped improve the country's debt profile as it represented 14 percent of total debt before the completion point.

2. São Tomé and Príncipe's medium- and long-term public and publically guaranteed (PPG) external debt was estimated at $168.1 million in nominal terms as of August 2011 (Table 1)[3]. The debt burden has increased from $110 million at the end of 2008, but remains significantly below the pre-debt relief high of $359.5 million at the end of 2006. Total public sector debt is composed solely of debt contracted or guaranteed by the central government, and there is currently no State-Owned Enterprise external debt. Debt composition has shifted after the HIPC completion point. The share of multilateral debt declined from nearly 60 percent before the completion point to around 25 percent. Including technical arrears, Angola is the country's main bilateral creditor, accounting for approximately 23 percent of outstanding external debt. The main multilateral creditor is the IDA.

3. To implement the terms of the May 2007 Agreed Minute, the authorities signed bilateral agreements with all its Paris Club creditors, except Russia, with whom agreement has been reached but not formally signed. [4]In July 2008, São Tomé & Príncipe received debt relief from Portugal, its main non-Paris Club creditor at the time. Efforts are underway to conclude additional debt relief with other non-Paris club creditors. Discussions have recently concluded with Algeria and are expected to conclude in the near term with Brazil. The authorities have requested the Fund's assistance to facilitate negotiations with Angola.[5]

São Tomé and Príncipe: External Debt Stock

(As of end-August 2011)	Million USD	Share
Multilateral Creditors	40.3	24%
IDA	17.7	11%
AfDB	2.1	1%
BADEA	5.2	3%
IMF	4.4	3%
OPEC	3.6	2%
FIDA	6.2	4%
Others	1.1	1%
Bilateral Creditors	127.8	76%
Angola 1/	38.8	23%
China1/	17.0	10%
Nigeria	20.0	12%
Portugal	17.4	10%
Italy 1/	25.8	15%
Others 1/	8.8	5%
Total	168.1	100%

Sources: Country authorities and IMF staff estimates
1/ Includes debt in dispute.

[3] $80.4 million of this debt consists of technical arrears to Angola ($28.8 million), China ($17.0 million), Italy ($25.8 million), and Yugoslavia ($8.8 million).

[4] The signing of the agreement has been delayed due to the Russian authorities' request that an official signing ceremony take place in Moscow.

[5] It is assumed that bilateral creditors with which São Tomé & Príncipe is engaged in negotiations will provide debt relief on terms comparable to those of the Paris Club. Currently, the country does not service bilateral debt under negotiation and has accumulated technical arrears in the amount of $80.4 million.

UNDERLYING ASSUMPTIONS

4. **The medium-term macroeconomic framework foresees a subdued recovery from the global economic crisis, with annual output growth projected to return to 6 percent (the historic norm) by 2013 (Box 1).** The main drivers of growth are expected to be construction, tourism, and agriculture. These growth areas are supported by the public investment program, which will continue to focus on investments in transportation and telecommunication, public administration, and health. The DSA assumes continued macroeconomic stability over the medium term (i.e., through 2014) based on fiscal consolidation. It is assumed in the baseline scenario that oil reserves will be discovered in commercially viable quantities and that oil production will begin in 2015.

5. **Fiscal performance has improved since a significant slippage in 2009.** In 2009, the domestic primary deficit rose to 8 percent of GDP, largely due to revenue underperformance and excess current expenditure. The domestic primary deficit narrowed to 4.1 percent of GDP in 2010 on account of improved revenue performance. The domestic primary deficit is expected to narrow further to 3.5 percent of GDP in 2011 as on account of expenditure restraint. In the medium term, the domestic primary deficit is expected to decline as the efforts to boost domestic revenues and contain expenditure continue. Revenues are expected to be boosted in 2012 as the government receives oil signature bonuses (equivalent to about 9 percent of GDP).

6. **The current DSA assumes the same level of external financing as under the previous Joint DSA, but assumes higher loan concessionality.** The DSA assumes that the average grant element of new disbursement is about 50 percent through the medium term, in line with the current IMF program. In the baseline, concessional financing is phased out beginning in 2015 as the country becomes an oil producer; first moving from IDA grants to IDA credits and then to accessing finance at market rates. No financing from future privatization operations, no commercial loans, no domestic borrowing, and no short-term loans are assumed throughout the period.

7. **The baseline scenario retains the same petroleum assumptions applied under the previous Joint DSA.** Production and export of about 12,700 barrels per day is assumed to commence in 2015 in the Joint Development Zone (JDZ) shared with Nigeria. This is expected to yield $430 million in average annual export earnings and $266 million in average annual revenues to the JDZ, of which 40 percent ($106 million) will belong to São Tomé and Príncipe.[6] In accordance with the Oil Revenue Management Law (ORML), these petroleum revenues will be accumulated in a National Oil Account (NOA) from which resources will be drawn up to a maximum of 20 percent of the balance per year to finance the annual budget. Once oil production starts, the bulk of current revenues are to be transferred into a sub-account of the NOA—the Permanent Fund of São Tomé & Príncipe. Resources in the Permanent Fund are

[6] The last DSA update prepared by Fund staff (February 2010) assumed a similar volume of oil production and exports beginning in 2015 at a price of $75 per barrel, compared to $82 a barrel in this DSA. The 2009 Joint DSA assumed oil production beginning in 2014 and exports starting in 2015. The 2008 DSA had the same timeline for production and exports, but assumed a higher volume of production of about 15,000 barrels per day, priced at $70 per barrel.

to be invested with a view to generating a permanent income stream for the NOA.

8. **The main risk to the macroeconomic framework arises from the uncertainty about the prospects for oil.** For illustrative purposes, the DSA expands the analysis under the alternative non-oil scenario to assess the debt outlook in the event that oil is not discovered in commercially viable quantities. The details of the alternative medium-to long-term assumptions are described in Box 2. Medium-term growth could be slower than in the baseline if expected concessional financing cannot be obtained. A lack of grants or concessional loans will hamper the efforts to diversify the economy and improve infrastructure by slowing the government's public investment program.

Box 1. São Tomé and Príncipe: Baseline Macroeconomic Assumptions

Real GDP growth is projected at 5 percent in 2011 and then to average around 6 percent over the period 2012–14 as the country recovers from the global financial crisis and as foreign direct investment in tourism and oil-related construction picks up. Growth surges to 24 percent of GDP in 2015 as oil production commences, and then returns to the long-run average of 5.6 percent over the projection horizon.

Average annual inflation is projected to steadily decline from 13.3 percent in 2010, to 8.8 percent in 2012, and further to around 3.5 percent by 2014. It is assumed to remain around 3 percent over the longer term. The path reflects fiscal tightening and the peg of the dobra against the euro, which went into effect in January 2010.

The non-interest current account deficit (including official grants) increased to 30.4 percent of GDP in 2010, due to increases in imports associated with oil-related investment projects. The non-interest current account deficit is expected to remain over 24 percent of GDP until oil exports start. Investment related to oil production is expected to keep the deficit around 30 percent through 2017. The current account is then expected to decline sharply to 14 percent of GDP and will gradually trend toward balance over the longer term. Pre-oil export growth will be driven by increases in cocoa production and re-exports of fuel to airline and shipping companies as São Tomé & Príncipe rehabilitates its airport and expands its connectivity.

The domestic primary deficit fell to 4.1 percent of GDP in 2010 and is expected to continue declining in the medium term, in line with the aim of mobilizing sufficient revenues to cover recurrent spending. Once oil production starts, the overall fiscal balance will average a surplus of around 8 percent of GDP over the longer term, while the non-oil domestic primary deficit will remain in line with non-debt creating financing. This is projected to result from restraint in wage and goods and services expenditures and improved revenue administration.

Grants are projected to decline from their current levels of 19 percent of GDP in 2010 to an average of 9 percent of GDP in the medium term. These grants, together with projected disbursements from concessional loans are assumed to be spent entirely on development projects and associated maintenance.

FDI levels declined to an average of 6 percent of GDP during 2009 through 2011 as a result of the global financial crisis and uncertainty surrounding oil production. FDI is expected to rebound to 17 percent of GDP in 2012 as exploration begins in the Exclusive Economic Zone (EEZ). In the oil era, FDI increases substantially to finance oil-related capital investments. Both grants and concessional loans are projected to decline substantially as oil income becomes available to finance development needs.

No domestic borrowing is envisaged. Any domestic financing needs are met via a drawdown of government deposits (including from the NOA).

EXTERNAL AND PUBLIC SECTOR DSA[7]

A. Baseline

9. **Under the baseline, the external debt trajectory breaches the threshold level for the present value of PPG external debt.** Reflecting São Tomé and Príncipe's low exports, the PV of PPG external debt-to-exports ratio is over three times the indicative threshold of 100 percent and is expected to remain above the threshold until 2015 when oil exports begin. External debt indicators improve dramatically with oil, with all ratios immediately dropping below the threshold and trending down. The debt-to GDP ratio is marginally above the threshold until the start of oil production.

10. **São Tomé and Príncipe's debt dynamics remain below the thresholds for all other indicators.** The debt-to-GDP ratio is within 2 percent of the threshold in 2011 and 2012 and additional borrowing beyond what is included in the baseline will only drive it further over the policy-dependent threshold, where it could remain in breach until oil comes on stream. The government has obtained additional concessional financing over the past year from various sources to make up for shortfalls in grants.[8]

11. **Debt service ratios are expected to remain below the threshold for the projection period.** Although São Tomé and Príncipe's debt service ratios fall below the indicative thresholds, the country will be unable to expand its very narrow export base in the short term. Absent oil production, this could contribute to solvency and liquidity risks.

São Tomé and Príncipe: External Debt Indicators

	Indicative Thresholds 1/	2009	2010	2011
NPV of external debt				
In percent of GDP	30	20	33	33
In percent of exports	100	151	298	324
In percent of revenue	200	105	178	181
Debt service				
In percent of exports	15	3	11	14
In percent of revenue	25	2	7	8

1/ Represents Low Income Country DSA indicative thresholds for São Tomé & Príncipe that is classified as a poor performer under the Bank's Country Policy Institutional Assessment.
World

[7] There is not much difference between the external and public sector DSAs since the government of São Tomé & Príncipe does not issue domestic debt and is not projected to issue debt in the baseline scenario.

[8] During 2009, bilateral sources of highly concessional financing included Angola ($10 million), Nigeria ($10 million), and Portugal ($1 million) and multilateral institutions ($4 million). In 2010, concessional financing was received from Portugal ($17.4 million) and multilateral institutions ($3 million) while in 2011 the authorities received concessional loans from Nigeria ($10 million), and multilateral agencies ($4.7 million) by the end of August.

B. Sensitivity Analysis and Alternative Scenario

12. Stress tests show the vulnerability of the debt position to a slowdown in export growth and a combination of other adverse economic shocks. The present value of debt exceeds 30 percent of GDP through 2022. Similarly, the debt-to-revenue ratio rises above the 200 percent threshold from 2012–14, reaching 310 percent in 2013. Weaker-than-expected export growth causes the present value of debt-to-exports to rise to almost 800 percent in 2013 and the debt service-to-exports ratio to breach the threshold, reaching over 31 percent in 2014. Several other potential shocks could also see debt levels remain above the indicative thresholds for a prolonged period. If the current account deficit were at lower levels, then debt could be reduced more quickly. Smaller current account deficits are unlikely in coming years as the remaining construction projects are rolled out and existing projects are completed.

Box 2. São Tomé and Príncipe: Macroeconomic Assumptions under the Alternative Non-Oil Scenario with Adjustment

Real GDP growth is assumed to be lower than in the baseline by 0.5 percent of GDP from 2013–15 as the government slows its public investment program absent finance from oil revenues. Over the long term, growth is projected to be sustained at around 5.5, similar to the historical norm. Strong macroeconomic policies, measures to enhance the business climate, and successful implementation of a tourism development strategy would be needed to achieve this potential. Growth would be led by tourism, agriculture, and fishing. Investment will have to be supported by grant inflows in the absence of oil.

The projected non-interest current account deficit would decline from around 30 percent of GDP to a medium-term level of around 25 percent, reflecting a decline in imports.

The domestic primary deficit is adjusted by a total of 2 percent over a period of two years starting in 2014 to keep it in line with projected available non-debt creating financing. Making the adjustment will keep the domestic primary deficit in line with non-debt creating financing. Most concessional borrowing is projected to arise to finance capital expenditures associated with the public investment program. To minimize the impact on growth, the adjustment would come through measures to enhance revenue mobilization (i.e., broaden the tax base by consolidating tax revenue reforms) and to reduce nonpriority spending. The scenario continues to assume receipts of oil signature bonuses in 2011 and 2012, reflecting the results of completed contracts and on-going negotiations.

Concessional borrowing would decline from unsustainably high levels in 2009–11 to the historical norm of 3 percent of GDP, beginning with a reduction of planned borrowing during 2012–15 by around 3 percent of GDP per year. All borrowing through the long term will occur on highly concessional terms. Capital investment of about US$24 million currently projected to be financed by concessional loans over 2013 and 2014 will have to be postponed to keep the PV of debt-to GDP ratio around the threshold.

Grant financing is expected to remain around historical norms, but additional grant mobilization could mitigate the impact of lower borrowing for capital investment.

FDI flows will subside toward 5 percent of GDP, consistent with the average for Sub-Saharan countries.

13. Under a non-oil scenario, São Tomé & Príncipe's debt dynamics would remain close to the thresholds, with increased vulnerability to shocks. Fiscal deficits would be financed through highly concessional borrowing, raising debt levels relative to the baseline. Significant breaches would occur throughout the projection period for the debt-to-exports ratio. Additionally, the debt-to-GDP ratio would steadily climb to just over the 30 percent threshold from 2021 until 2023 before gradually declining resulting from a combination of fiscal discipline and GDP growth. An adjustment to correct the debt-to-exports ratio is difficult given the narrow export base. However, redressing the breach of the debt-to-GDP threshold over the longer term would require a sustained fiscal adjustment.

CONCLUSION AND THE AUTHORITIES' VIEW

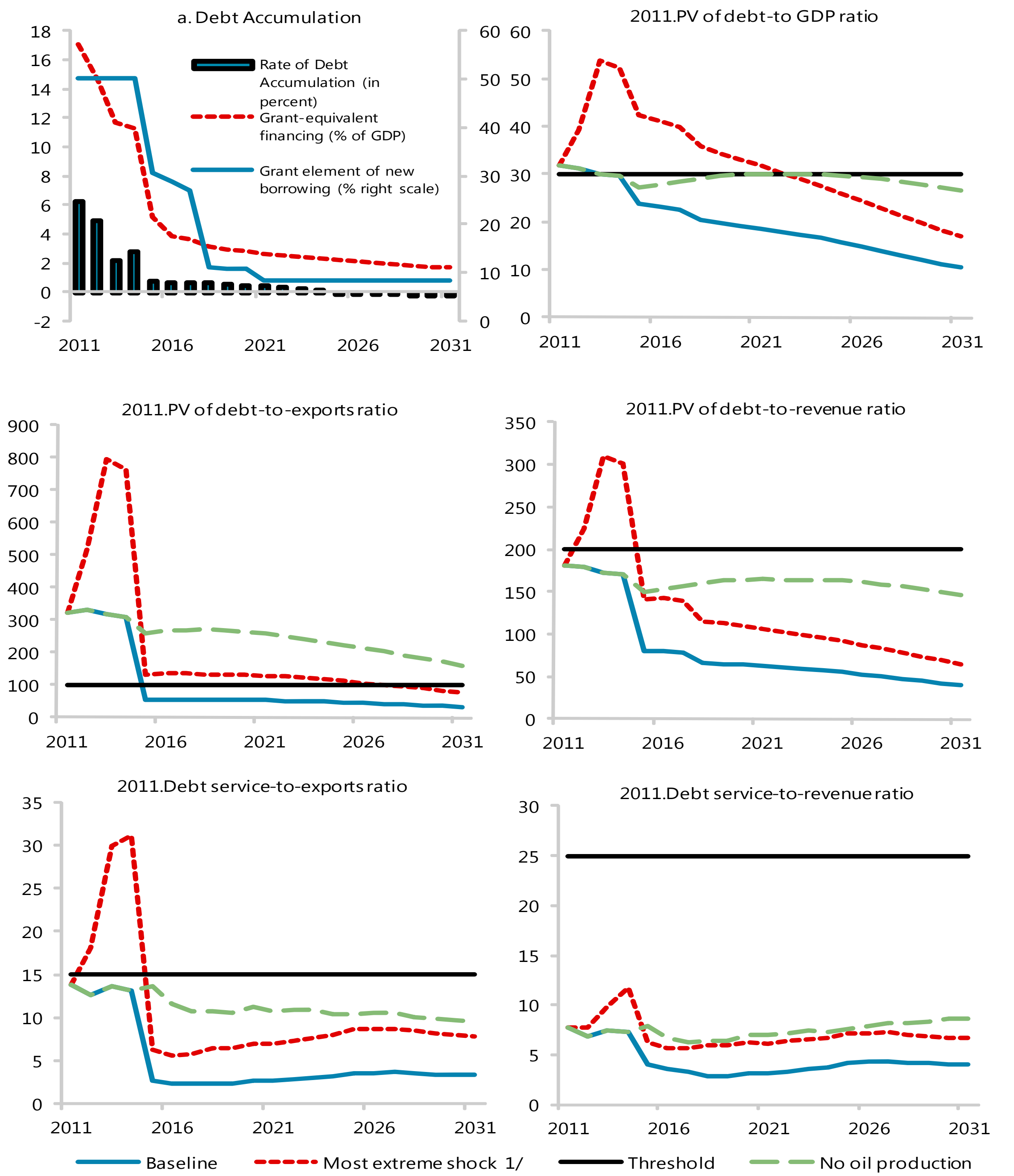
14. São Tomé and Príncipe remains at a high risk of external debt distress. São Tomé & Príncipe benefits from the future oil prospects which attract foreign direct investment and from receiving grant inflows which clearly mitigate its liquidity risks; these are unstable and insufficient to limit the risks posed by the high debt levels. Despite being at a high risk, São Tomé and Príncipe's debt dynamics are manageable. São Tomé and Príncipe is able to service its current obligations, and the overall public sector debt situation, while elevated over the short term, shows a downward trend in the longer run. The authorities will need to monitor the adequacy of fiscal adjustment under a non-oil scenario to ensure that long-term debt sustainability is not compromised. In this context, the DSA underlines the need for measures to mitigate risks:

- Strengthen the fiscal position such that recurrent expenditures are covered by domestic resources;
- Accelerate reforms to improve policy and institutional performance to enhance the growth potential of the country;
- Ensure favorable financing terms in the form of grants or highly concessional borrowing; and
- Develop a comprehensive strategy to reduce the cost of doing business and attract investment that can broaden the export base.

15. Key medium-term vulnerabilities include lower GDP growth, major external shocks, and borrowing on less concessional terms. These vulnerabilities underscore the importance of sound macroeconomic policies to improve the growth potential on a sustained basis. The development of sound public debt management, anchored in a medium-term debt management strategy and in line with a medium-term fiscal framework will be essential to guide future development financing for São Tomé and Príncipe. Priority should be given to projects which would help generate high growth and employment to help ensure debt service capacity in the future.

16. The authorities broadly agreed with the key macroeconomic assumptions and the analysis underpinning the joint debt sustainability analysis. The authorities are optimistic about the prospects for future oil exploration, yet welcomed the discussion of a non-oil scenario. While acknowledging that São Tomé & Príncipe remains at risk of falling back into debt distress, they highlighted that supporting growth and diversification requires mobilizing sufficient resources to implement the public investment program, which may require highly-concessional borrowing to the extent that sufficient grant financing is not available. The authorities noted that additional borrowing does not pose an immediate concern as the debt service levels are currently well below the thresholds.

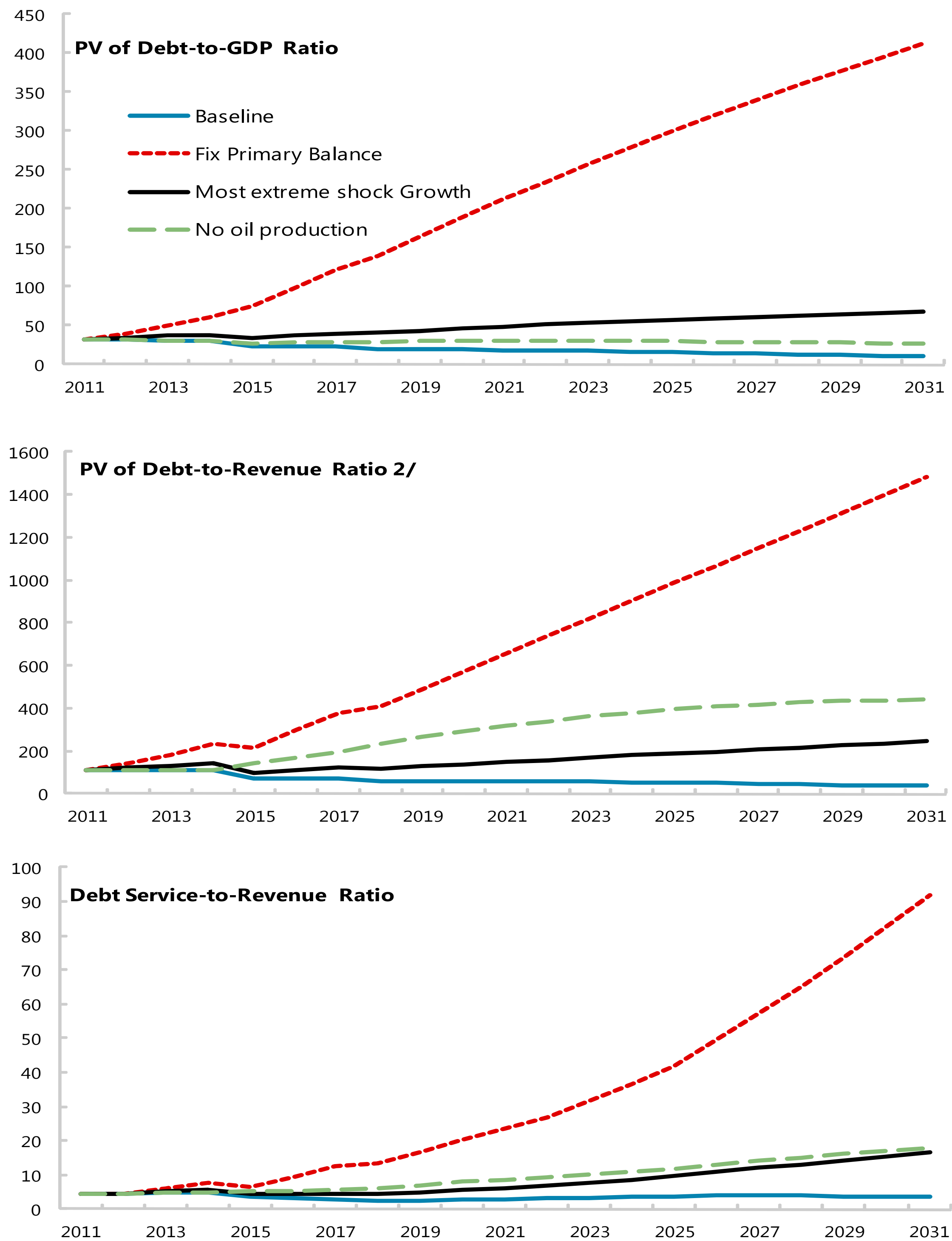
Figure 1. São Tomé and Príncipe: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2011–31 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2021. In figure b. it corresponds to a Combination shock; in c. to a Exports shock; in d. to a Combination shock; in e. to a Exports shock and in figure f. to a Combination shock

Figure 2. São Tomé and Príncipe: Indicators of Public Debt under Alternatives Scenarios, 2011–31[1/]



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in 2021.
2/ Revenues are defined inclusive of grants.

Table 1. São Tomé and Príncipe: External Debt Sustainability Framework, Baseline Scenario, 2008–31 1/

(Percent of GDP, unless otherwise indicated)

	Actual			Historical Average	Standard Deviation	Projections									
	2008	2009	2010			2011	2012	2013	2014	2015	2016	2011-2016 Average	2021	2031	2017-2031 Average
External debt (nominal) 1/	**22.2**	**35.0**	**47.4**			**47.6**	**48.5**	**46.6**	**46.2**	**36.8**	**35.0**		**25.3**	**12.4**	
o/w public and publicly guaranteed (PPG)	22.2	35.0	47.4			47.6	48.5	46.6	46.2	36.8	35.0		25.3	12.4	
Change in external debt	-36.1	12.8	12.4			0.2	0.9	-1.8	-0.4	-9.4	-1.8		-1.4	-1.1	
Identified net debt-creating flows	-14.9	6.7	7.4			8.3	5.3	-0.8	0.0	-11.2	-1.9		-1.9	0.1	
Non-interest current account deficit	**35.5**	**26.4**	**30.4**	**22.3**	**10.2**	**29.6**	**27.5**	**27.7**	**27.2**	**24.3**	**28.3**		**8.9**	**6.1**	9.4
Deficit in balance of goods and services	51.9	44.8	54.9			44.9	40.8	39.9	38.5	7.9	11.5		1.9	3.4	
Exports	10.9	10.5	11.2			9.8	9.4	9.4	9.6	45.2	42.8		35.3	32.2	
Imports	62.8	55.3	66.1			54.7	50.3	49.3	48.1	53.1	54.3		37.2	35.6	
Net current transfers (negative = inflow)	-14.2	-17.1	-23.0	-21.6	5.7	-14.1	-12.2	-11.2	-10.4	-4.9	-2.8		-2.1	-1.3	-1.9
o/w official	-12.5	-15.6	-21.5			-12.8	-11.2	-10.3	-9.5	-4.2	-2.2		-1.6	-1.0	
Other current account flows (negative = net inflow)	-2.2	-1.2	-1.5			-1.2	-1.1	-1.0	-1.0	21.3	19.7		9.0	4.0	
Net FDI (negative = inflow)	**-39.4**	**-18.7**	**-22.5**	**-23.5**	**15.4**	**-19.8**	**-20.3**	**-26.2**	**-25.0**	**-26.9**	**-29.0**		**-9.8**	**-5.6**	-10.1
Endogenous debt dynamics 2/	**-11.0**	**-1.0**	**-0.5**			**-1.5**	**-1.9**	**-2.3**	**-2.2**	**-8.6**	**-1.3**		**-1.0**	**-0.4**	
Contribution from nominal interest rate	1.4	0.5	0.3			0.3	0.3	0.3	0.3	0.3	0.3		0.3	0.2	
Contribution from real GDP growth	-4.2	-0.8	-1.5			-1.9	-2.2	-2.6	-2.5	-8.9	-1.6		-1.3	-0.6	
Contribution from price and exchange rate changes	-8.3	-0.6	0.7			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**-21.2**	**6.1**	**5.0**			**-8.1**	**-4.4**	**-1.0**	**-0.4**	**1.7**	**0.2**		**0.5**	**-1.2**	
o/w exceptional financing	-99.8	-26.1	0.0			0.0	-1.1	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	33.4			31.77	31.4	29.9	29.6	23.9	23.2		18.7	10.4	
In percent of exports	...	...	297.5			323.51	332.6	318.8	309.0	53.0	54.2		53.0	32.5	
PV of PPG external debt	**...**	**...**	**33.4**			**31.77**	**31.4**	**29.9**	**29.6**	**23.9**	**23.2**		**18.7**	**10.4**	
In percent of exports	**...**	**...**	**297.5**			**323.51**	**332.6**	**318.8**	**309.0**	**53.0**	**54.2**		**53.0**	**32.5**	
In percent of government revenues	**...**	**...**	**178.3**			**180.51**	**180.0**	**172.3**	**170.5**	**79.9**	**80.0**		**62.9**	**40.0**	
Debt service-to-exports ratio (in percent)	**49.2**	**18.9**	**11.2**			**13.82**	**12.6**	**13.7**	**13.2**	**2.7**	**2.4**		**2.6**	**3.3**	
PPG debt service-to-exports ratio (in percent)	**49.2**	**18.9**	**11.2**			**13.82**	**12.6**	**13.7**	**13.2**	**2.7**	**2.4**		**2.6**	**3.3**	
PPG debt service-to-revenue ratio (in percent)	**32.1**	**12.0**	**6.7**			**7.71**	**6.8**	**7.4**	**7.3**	**4.0**	**3.5**		**3.1**	**4.0**	
Total gross financing need (Billions of U.S. dollars)	0.0	0.0	0.0			0.03	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Non-interest current account deficit that stabilizes debt ratio	71.6	13.5	18.0			29.43	26.6	29.5	27.6	33.8	30.1		10.2	7.2	
Key macroeconomic assumptions															
Real GDP growth (in percent)	9.1	4.0	4.5	5.1	5.4	4.9	5.5	6.0	6.0	24.4	4.6	8.6	5.2	4.8	5.6
GDP deflator in US dollar terms (change in percent)	16.6	2.9	-2.1	5.0	8.5	20.2	10.9	6.2	4.3	1.9	1.4	7.5	0.4	0.4	0.4
Effective interest rate (percent) 5/	3.1	2.5	0.8	1.2	0.9	0.9	0.8	0.7	0.7	0.8	0.9	0.8	1.2	1.8	1.4
Growth of exports of G&S (US dollar terms, in percent)	49.6	3.1	9.5	4.8	26.8	10.2	12.3	12.1	12.9	497.8	0.5	91.0	3.5	5.2	4.0
Growth of imports of G&S (US dollar terms, in percent)	25.4	-5.7	22.4	13.7	15.0	4.4	7.4	10.5	7.9	39.9	8.5	13.1	4.8	5.4	3.1
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	50.0	50.0	50.0	50.0	30.6	28.7	43.2	8.5	8.5	10.2
Government revenues (excluding grants, in percent of GDP) 6/	16.7	16.6	18.8			17.6	17.4	17.4	17.4	30.0	29.0		29.7	26.1	28.5
Aid flows (in Billions of US dollars) 7/	0.0	0.1	0.1			0.056	0.056	0.046	0.050	0.028	0.023		0.023	0.024	
o/w Grants	0.0	0.0	0.0			0.030	0.030	0.032	0.032	0.022	0.018		0.018	0.019	
o/w Concessional loans	0.0	0.0	0.0			0.027	0.025	0.014	0.018	0.006	0.005		0.005	0.005	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			17.0	14.6	11.6	11.2	5.2	3.9		2.6	1.7	2.4
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			76.2	77.1	84.1	81.8	85.6	83.8		81.2	82.0	81.8
Memorandum items:															
Nominal GDP (Billions of US dollars)	0.2	0.2	0.2			0.3	0.3	0.3	0.4	0.5	0.5		0.7	1.2	
Nominal dollar GDP growth	27.2	7.1	2.3			26.1	17.0	12.6	10.6	26.8	6.0	16.5	5.6	5.2	6.0
PV of PPG external debt (in Billions of US dollars)			0.068			0.080	0.093	0.100	0.109	0.112	0.115		0.1	0.1	
(PVt-PVt-1)/GDPt-1 (in percent)						6.3	4.9	2.2	2.8	0.7	0.7	2.9	0.4	-0.3	0.1
Gross remittances (Billions of US dollars)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of PPG external debt (in percent of GDP + remittances)	...	...	32.9			31.4	31.0	29.6	29.3	23.8	23.1		18.6	10.4	
PV of PPG external debt (in percent of exports + remittances)	...	...	262.0			287.4	298.8	289.3	283.2	52.2	53.4		52.3	32.1	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	9.8			12.3	11.3	12.4	12.1	2.6	2.4		2.6	3.2	

Sources: Country authorities; and staff estimates and projections. Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

1/ Includes both public and private sector external debt.

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

3/ Includes exceptional financing (i.e., ; gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes and private capital flows.

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

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

6/ Defined as total government revenue, excluding grants and debt relief.

7/ Defined as grants, concessional loans, and debt relief. Concessional debt is defined as debt having of grant element of at least 50 percent.

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

Table 2. São Tomé and Príncipe: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2011–31
(Percent)

	Projections							
	2011	2012	2013	2014	2015	2016	**2021**	2031
PV of debt-to GDP ratio								
Baseline	32	31	30	30	24	23	**19**	10
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	32	26	23	20	20	18	**12**	0
A2. New public sector loans on less favorable terms in 2011-2031 2	32	34	33	34	28	27	**23**	16
A3. No Oil Production and Fiscal Adjustment	32	31	30	30	38	45	**85**	117
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	32	33	33	33	27	26	**21**	12
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	32	34	36	35	29	28	**22**	12
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	32	36	38	37	30	29	**23**	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	32	39	48	46	38	37	**28**	15
B5. Combination of B1-B4 using one-half standard deviation shocks	32	39	54	52	42	41	**32**	17
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	32	43	41	40	33	32	**25**	14
PV of debt-to-exports ratio								
Baseline	324	333	319	309	53	54	**53**	32
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	324	274	243	209	43	41	**33**	0
A2. New public sector loans on less favorable terms in 2011-2031 2	324	359	355	355	61	64	**66**	49
A3. No Oil Production and Fiscal Adjustment	324	333	319	309	410	496	966	1390
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	324	333	318	308	53	54	**53**	32
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	324	516	797	765	131	135	**128**	77
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	324	333	318	308	53	54	**53**	32
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	324	409	510	484	83	85	**79**	46
B5. Combination of B1-B4 using one-half standard deviation shocks	324	451	699	666	115	117	**110**	64
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	324	333	318	308	53	54	**53**	32
PV of debt-to-revenue ratio								
Baseline	181	180	172	171	80	80	**63**	40
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	181	148	131	115	65	61	**40**	1
A2. New public sector loans on less favorable terms in 2011-2031 2	181	194	192	196	93	94	79	60
A3. No Oil Production and Fiscal Adjustment	181	180	172	171	184	222	397	583
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	181	190	193	191	89	90	**70**	44
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	181	194	208	204	96	96	**73**	45
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	181	207	217	215	101	101	**79**	50
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	181	222	275	267	126	126	**94**	56
B5. Combination of B1-B4 using one-half standard deviation shocks	181	225	310	301	142	142	**107**	65
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	181	247	235	233	109	109	**86**	54

Table 2. São Tomé and Príncipe: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2011–31 (concluded)

(Percent)

	Projections							
	2011	2012	2013	2014	2015	2016	2021	2031
Debt service-to-exports ratio								
Baseline	14	13	14	13	3	2	**3**	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	14	13	13	12	3	2	**1**	1
A2. New public sector loans on less favorable terms in 2011-2031 2	14	13	15	15	3	3	4	4
A3. No Oil Production and Fiscal Adjustment	14	13	14	13	15	15	26	57
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	14	13	14	13	3	2	**3**	3
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	14	18	30	31	6	6	**7**	8
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	14	13	14	13	3	2	**3**	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	14	13	16	19	4	3	**5**	5
B5. Combination of B1-B4 using one-half standard deviation shocks	14	15	22	26	5	5	**6**	7
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	14	13	14	13	3	2	**3**	3
Debt service-to-revenue ratio								
Baseline	8	7	7	7	4	4	**3**	4
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	8	7	7	6	4	3	**2**	1
A2. New public sector loans on less favorable terms in 2011-2031 2	8	7	8	8	5	4	4	5
A3. No Oil Production and Fiscal Adjustment	8	7	7	7	8	8	13	27
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	8	7	8	8	5	4	**3**	5
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	8	7	8	8	5	4	**4**	5
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	8	8	9	9	5	4	**4**	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	8	7	9	10	5	5	**6**	6
B5. Combination of B1-B4 using one-half standard deviation shocks	8	8	10	12	6	6	**6**	7
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	8	9	10	10	6	5	**4**	6

Sources: Country authorities; and staff estimates and projections.

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

Table 3. São Tomé and Príncipe: Public Sector Debt Sustainability Framework, Baseline Scenario, 2008–31

(Percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2008	2009	2010	Average	Standard Deviation	2011	2012	2013	2014	2015	2016	2011-16 Average	2021	2031	2017-31 Average
Public sector debt 1/	22.2	35.0	47.4			47.6	48.5	46.6	46.2	36.8	35.0		25.3	12.4	
o/w foreign-currency denominated	22.2	35.0	47.4			47.6	48.5	46.6	46.2	36.8	35.0		25.3	12.4	
Change in public sector debt	-36.1	12.8	12.4			0.2	0.9	-1.8	-0.4	-9.4	-1.8		-1.4	-1.1	
Identified debt-creating flows	-102.4	-15.0	8.5			7.9	2.1	0.0	0.5	-18.5	-9.7		-10.8	-6.1	
Primary deficit	1.6	19.1	10.9	9.2	4.7	17.0	8.7	5.0	4.6	-9.0	-7.9	3.0	-9.6	-5.6	-8.2
Revenue and grants	26.3	29.2	37.4			29.3	27.7	26.8	26.1	34.7	32.6		32.3	27.7	
of which: grants	9.6	12.6	18.6			11.7	10.2	9.4	8.7	4.8	3.6		2.6	1.6	
Primary (noninterest) expenditure	27.9	48.3	48.2			46.3	36.3	31.8	30.7	25.7	24.7		22.7	22.1	
Automatic debt dynamics	-12.1	-0.9	-2.1			-9.1	-6.6	-5.0	-4.2	-9.5	-1.8		-1.1	-0.4	
Contribution from interest rate/growth differential	-4.4	-0.6	-1.6			-2.8	-2.6	-2.9	-2.7	-9.2	-1.8		-1.4	-0.6	
of which: contribution from average real interest rate	0.5	0.3	-0.1			-0.5	-0.1	-0.1	-0.1	-0.2	-0.2		-0.1	0.0	
of which: contribution from real GDP growth	-4.8	-0.9	-1.5			-2.2	-2.5	-2.7	-2.6	-9.1	-1.6		-1.3	-0.6	
Contribution from real exchange rate depreciation	-7.7	-0.4	-0.4			-6.3	-4.0	-2.1	-1.4	-0.2	0.0		...	...	
Denominator = 1+g	1.1	1.0	1.0			1.0	1.1	1.1	1.1	1.2	1.0		1.1	1.0	
Other identified debt-creating flows	-91.9	-33.2	-0.3			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	11.6	-6.2	-0.3			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Debt relief (HIPC and other)	-103.4	-27.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes 5/	66.3	27.9	3.9			-7.7	-1.2	-1.8	-0.9	9.1	7.9		9.4	5.0	
Other Sustainability Indicators															
PV of public sector debt	0.0	0.0	33.4			31.8	31.4	29.9	29.6	23.9	23.2		18.7	10.4	
o/w foreign-currency denominated	0.0	0.0	33.4			31.8	31.4	29.9	29.6	23.9	23.2		18.7	10.4	
o/w external	...	...	33.4			31.8	31.4	29.9	29.6	23.9	23.2		18.7	10.4	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	7.0	21.1	12.1			18.3	9.9	6.2	5.9	-7.8	-6.9		-8.7	-4.6	
PV of public sector debt-to-revenue and grants ratio (in percent)	0.0	0.0	89.5			108.4	113.4	111.6	113.5	68.9	71.2		57.9	37.6	
PV of public sector debt-to-revenue ratio (in percent)	0.0	0.0	178.3			180.5	180.0	172.3	170.5	79.9	80.0		62.9	40.0	
o/w external 3/	...	...	178.3			180.5	180.0	172.3	170.5	79.9	80.0		62.9	40.0	
Debt service-to-revenue and grants ratio (in percent) 4/	20.4	6.8	3.4			4.6	4.3	4.8	4.8	3.5	3.1		2.8	3.8	
Debt service-to-revenue ratio (in percent) 4/	32.1	12.0	6.7			7.7	6.8	7.4	7.3	4.0	3.5		3.1	4.0	
Primary deficit that stabilizes the debt-to-GDP ratio	37.7	6.3	-1.5			16.8	7.8	6.8	5.0	0.4	-6.1		-8.3	-4.5	
Key macroeconomic and fiscal assumptions															
Nominal GDP (local currency)	2696.1	3184.5	3718.9			4375.5	5164.9	5839.3	6508.0	8315.2	8885.9		13561.8	26424.0	
Real GDP growth (in percent)	9.1	4.0	4.5	5.1	5.4	4.9	5.5	6.0	6.0	24.4	4.6	8.6	5.2	4.8	5.6
Average nominal interest rate on forex debt (in percent)	3.1	2.5	0.8	1.2	0.9	0.9	0.8	0.7	0.7	0.8	0.9	0.8	1.2	1.8	1.4
Average real interest rate on domestic debt (in percent)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Real exchange rate depreciation (in percent, + indicates depreciation)	-14.4	-1.7	-1.3	-3.3	8.5	-14.2	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	26.6	13.6	11.7	15.6	10.0	12.1	11.9	6.7	5.1	2.7	2.2	6.8	1.9	1.9	1.9
Growth of real primary spending (deflated by GDP deflator, in percent)	-0.2	0.8	0.0	0.1	0.3	0.0	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	50.0	50.0	50.0	50.0	30.6	28.7	43.2	8.5	8.5	...

Sources: Country authorities; and staff estimates and projections. Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

1/ Public sector, includes general government. There is no debt contrated by local governments or state owned-corporations.

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

3/ Revenues excluding grants.

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

5/ Projected residual reflect flows not covered by the template, including National Oil Account and privatization funds.

Table 4. São Tomé and Príncipe: Sensitivity Analysis for Key Indicators of Public Debt, 2011–31
(Percent)

		Projections						
	2011	2012	2013	2014	2015	2016	2021	2031
PV of Debt-to-GDP Ratio								
Baseline	32	31	30	30	24	23	19	10
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	32	32	35	39	58	75	174	319
A2. Primary balance is unchanged from 2011	32	40	50	61	75	98	212	412
A3. No Oil & Adjustment 3/	32	31	30	30	38	45	85	117
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013 1/	32	34	37	38	35	37	49	69
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	32	37	44	43	35	34	28	18
B3. Combination of B1-B2 using one half standard deviation shocks	32	35	41	41	35	36	39	45
B4. One-time 30 percent real depreciation in 2012	32	42	39	37	30	30	25	18
B5. 10 percent of GDP increase in other debt-creating flows in 2012	32	41	39	38	31	30	25	16
PV of Debt-to-Revenue Ratio 2/								
Baseline	108	113	112	113	69	71	58	38
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	108	116	130	149	162	225	527	1130
A2. Primary balance is unchanged from 2011	108	143	185	232	217	302	656	1485
A3. No Oil & Adjustment 3/	108	113	112	113	144	171	319	442
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013 1/	108	121	131	141	98	113	149	245
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	108	133	164	164	100	104	86	67
B3. Combination of B1-B2 using one half standard deviation shocks	108	125	149	154	101	110	121	163
B4. One-time 30 percent real depreciation in 2012	108	151	145	142	87	91	78	66
B5. 10 percent of GDP increase in other debt-creating flows in 2012	108	150	146	147	90	93	77	57

Table 4. São Tomé and Príncipe: Sensitivity Analysis for Key Indicators of Public Debt, 2011–31 (concluded)
(Percent of Revenue)

Debt Service-to-Revenue Ratio 2/								
Baseline	5	4	5	5	3	3	3	4
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	5	4	5	6	5	7	19	71
A2. Primary balance is unchanged from 2011	5	4	6	8	7	9	24	92
A3. No Oil & Adjustment 3/	5	4	5	5	5	5	9	18
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013 1/	5	4	5	6	4	4	6	17
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	5	4	6	7	5	4	4	7
B3. Combination of B1-B2 using one half standard deviation shocks	5	4	5	6	5	4	5	12
B4. One-time 30 percent real depreciation in 2012	5	5	7	7	5	5	4	7
B5. 10 percent of GDP increase in other debt-creating flows in 2012	5	4	6	6	4	4	4	6

Sources: Country authorities; and staff estimates and projections.
1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.
2/ Revenues are defined inclusive of grants.
3/ Assumes no oil production in the long-term and fiscal adjustment totalling 2.0 percent of GDP during 2013-2014.