INTERNATIONAL DEVELOPMENT ASSOCIATION AND
INTERNATIONAL MONETARY FUND

REPUBLIC OF MOZAMBIQUE

Joint World Bank/IMF Debt Sustainability Analysis - Update

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

Approved by Roger Nord and Dominique Desruelle (IMF)
and Marcelo Guigale and Jeffrey Lewis (World Bank)

May 24, 2011

This debt sustainability analysis (DSA) updates the joint IMF/IDA DSA from May 27, 2010 reflecting the most recent macroeconomic developments.[1] Its main results indicate that Mozambique remains at a low risk of debt distress.[2] In line with the previous DSA, the government's plans to temporarily increase public investment partially financed by external borrowing on nonconcessional terms still calls for caution and resolve to improve debt management capacity. As public debt is largely external, the evolution of public debt indicators mirrors that of external debt.

I. Underlying DSA Assumptions

1. **This DSA is consistent with the macroeconomic framework outlined in the Staff Report for the 2011 Article IV Consultation and Second Review under the Policy Support Instrument.** Compared to the previous DSA,[3] this update includes:

a. A revised macroeconomic framework, including in particular lower fiscal and current account deficits over the medium term. Fiscal performance has surpassed expectations on account of a sustained revenue administration effort, which is likely to continue. The external accounts are expected to benefit from buoyant mega-project

[1] In line with the 2010 Staff Guidance Note, a full joint LIC DSA is expected to be prepared once every three years for PRGT-eligible IDA-only countries. In between, short annual updates are expected to be produced unless macroeconomic conditions since the last full DSA have significantly changed. See: "Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework for Low-Income Countries" (IMF/SM/10/16 and IDA/ SecM2010-0029)

[2] The DSA presented in this document is based on the standard low-income countries (LIC) DSA framework. See "Debt Sustainability in Low-Income Countries: Further Considerations on an Operational Framework, Policy Implications" (IMF/SM/05/109 and IDA/SECM2004/0629, 9/10/04)

[3] See Mozambique -- Sixth Review Under the Policy Support Instrument, Second Review Under the Arrangement Under the Exogenous Shocks Facility, and Request for a Three-Year Policy Support Instrument. IMF Country report No. 10/174.

exports, which should more than offset the rising import bill related to surging global food and fuel prices.

b. Updated debt stocks. The current DSA is based on the stock of debt as of end-2010, while the previous one was based on the stock of debt as of end-2009.

c. A revised public investment profile reflecting a slower recourse to nonconcessional external borrowing (NCB) than projected in the past.[4] This DSA update still assumes the full use of the US$900 million NCB ceiling over the three-year program, but projects a slightly slower pace of disbursements. Disbursements under the Portuguese credit line have also been updated, in line with current developments.

d. Revised grant financing projections, reflecting a lower grant component in external financing going forward.

Evolution of selected macroeconomic indicators

	2009	2010	2011	2012	2013
Real GDP growth (%)					
Previous DSA	6.3	6.5	7.5	7.6	7.9
Current DSA	6.3	6.6	7.2	7.5	7.9
Nominal GDP (US$ mill)					
Previous DSA	9.8	10.2	10.8	12.2	13.8
Current DSA	10.1	9.8	12.1	13.5	15.1
Primary fiscal deficit (% of GDP)					
Previous DSA	5.1	4.1	6.6	6.0	5.1
Current DSA	4.9	2.9	5.5	5.8	5.5
Current account deficit (% of GDP)					
Previous DSA	11.9	13.6	12.8	13.5	13.4
Current DSA	12.1	10.2	11.4	10.9	10.9
Use of NCB ceiling (% of GDP)					
Previous DSA	…	…	2.8	2.5	2.2
Current DSA	…	0.7	2.1	2.4	2.2
Disbursements under PTL (% of GDP)					
Previous DSA	…	0.4	1.8	1.6	1.4
Current DSA	…	1.3	1.9	1.4	1.1
Grant financing (% of GDP) 1/					
Previous DSA	…	…	11.3	11.2	11.1
Current DSA	…	…	9.3	9.0	8.9

1/ 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).

[4] The authorities have signed two nonconcessional loans to date: (i) in December 2010, a loan from China amounting to US$66 million to modernize Maputo airport; and (ii) in April 2011, a loan from Brazil for the construction of Nacala airport over US$80 million.

II. External Debt Sustainability Analysis

2. **Under the baseline scenario, all debt indicators remain well below their respective thresholds, including in the longer term** (Table 1a and Figure 1). However, the debt **indicators** rise significantly towards their respective thresholds over the next five years, as the authorities step up their borrowing to address the country's infrastructure gap. Stress tests reveal that Mozambique's external debt is vulnerable to a one-time depreciation of the exchange rate and an exports shock.[5]

3. **The debt sustainability indicators are also sensitive to a recurrence of past macroeconomic performance.** However, basing the analysis solely on historical trends (scenario A1) does not take into account the significant structural changes in the Mozambican economy in the post-civil war period and the considerable improvements in the macroeconomic environment under successive Fund-supported programs, all of which should lessen the likelihood of a repeat of the past economic performance. Among other things, there was a shift in the structure of the economy, as large private capital inflows in the early years of the decade in the natural resources sector subsequently supported a surge in exports and a sharp fall in the current account deficit.

4. **In a scenario under which nonconcessional resources are not used productively, external debt indicators would deteriorate, but remain below their respective thresholds.** The customized high investment-low growth scenario assumes that foreign financing and related spending would remain unchanged relative to the baseline in nominal terms. However, it assumes a much lower rate of return of the public investment projects compared to the baseline (and therefore a much lower impact on GDP growth over the projection period).

III. Public Sector Debt Sustainability

5. **The evolution of the public debt indicators (including domestic debt) mirrors that of the external indicators because of the predominance of external debt** (Table 2 and Figure 2). The medium-term increase in public debt reflects the temporary surge in public investment financed by external borrowing on nonconcessional terms. However, over the longer term, the public debt stock projections also include a marginal increase in domestic debt from about 3 percent of GDP at end-2010 to 4 percent of GDP in 2031.[6]

---

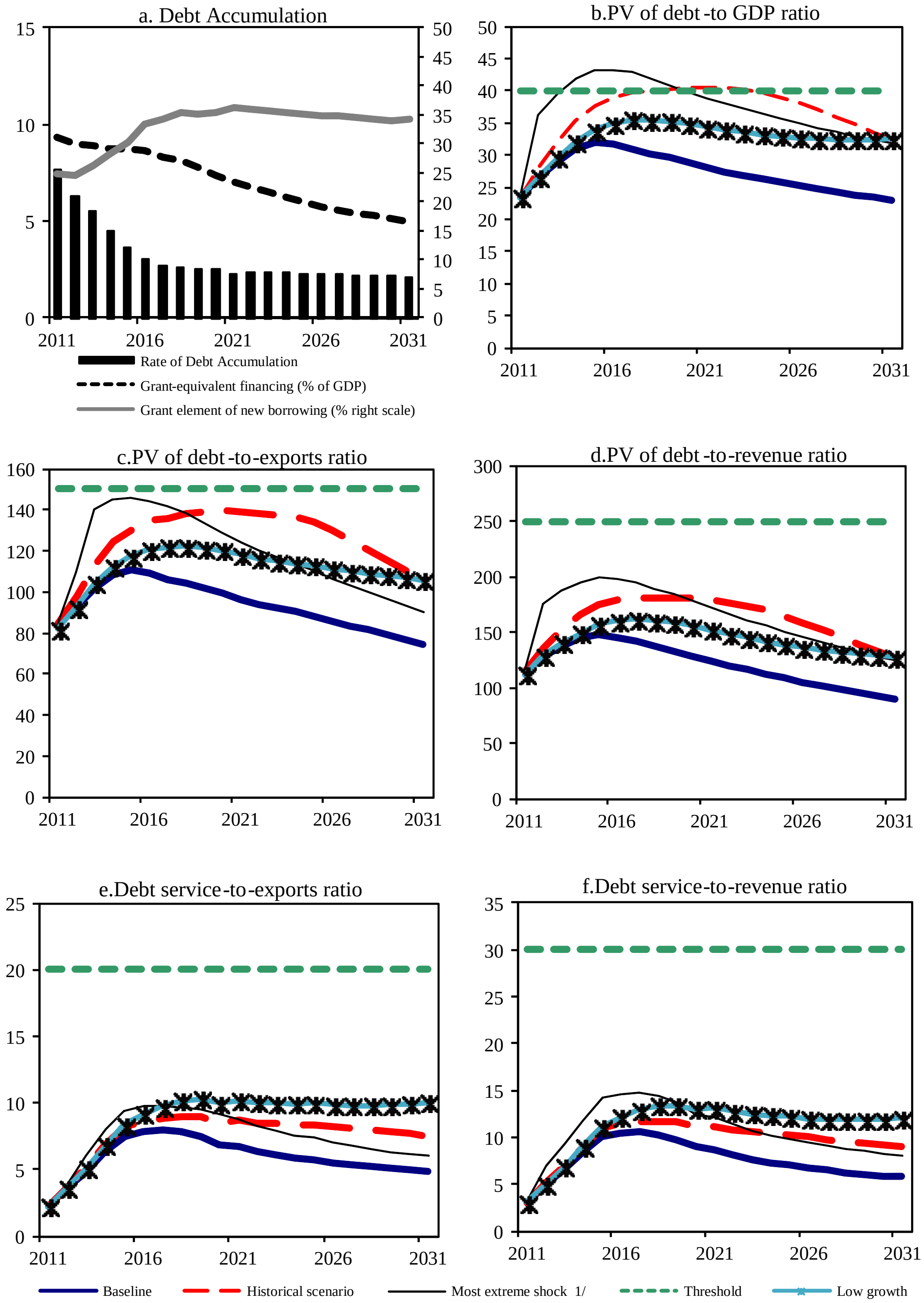
[5] In last year's DSA, the standard export shock was tailored to capture the historical volatility over the past two decades of prices of aluminum, which accounts for roughly half of Mozambique's export proceeds. The current export shock reflects the same modification.

[6] This should not affect the availability of credit to the private sector.

VI. CONCLUSIONS

6. **Mozambique continues to face a low risk of debt distress.** Its external debt levels are expected to remain below their indicative thresholds for debt distress. However, the government's plans to temporarily increase public investment financed by external borrowing on nonconcessional terms, will noticeably increase debt vulnerability, as debt ratios under the stress tests approach, and in some instances temporarily and marginally exceed, the relevant thresholds. Although Mozambique's public debt is expected to decline beyond the medium term, stress tests suggest vulnerability, mirroring the large share of external debt in total debt. However, the authorities' commitments under the current PSI, including the continued pursuit of prudent macroeconomic policies and structural reforms to boost their debt management capacity, should be conducive to containing debt vulnerabilities.

Figure 1. Mozambique: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2011-2031 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 One-time depreciation shock; in c. to a Exports shock; in d. to a One-time depreciation shock; in e. to a Exports shock and in figure f. to a One-time depreciation shock

Table 1a.: External Debt Sustainability Framework, Baseline Scenario, 2008-2031 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical 0 Average	0 Standard Deviation	Projections									
	2008	2009	2010			2011	2012	2013	2014	2015	2016	2011-2016 Average	2021	2031	2017-2031 Average
External debt (nominal) 1/	**61.5**	**57.5**	**58.0**			**54.0**	**54.0**	**54.2**	**54.8**	**55.2**	**54.3**		**50.7**	**51.8**	
o/w public and publicly guaranteed (PPG)	38.0	36.5	32.5			35.2	38.7	41.6	44.2	45.8	45.8		42.3	34.9	
Change in external debt	-6.6	-4.0	0.5			-4.0	0.0	0.2	0.6	0.4	-0.9		-0.8	1.0	
Identified net debt-creating flows	-6.6	2.4	3.8			0.8	0.2	0.6	-0.1	0.0	-0.2		0.9	2.2	
Non-interest current account deficit	**9.5**	**10.6**	**8.6**	**10.4**	**3.3**	**9.8**	**9.4**	**9.3**	**9.1**	**9.1**	**9.1**		**9.3**	**9.3**	9.3
Deficit in balance of goods and services	14.1	17.2	16.2			15.8	14.5	14.2	13.8	13.5	13.3		13.3	10.4	
Exports	32.3	27.4	29.5			27.6	28.6	28.4	28.5	28.9	28.9		29.1	30.8	
Imports	46.4	44.5	45.7			43.4	43.1	42.6	42.3	42.4	42.2		42.4	41.2	
Net current transfers (negative = inflow)	-8.6	-7.6	-6.8	-7.4	3.0	-6.2	-6.0	-5.9	-5.7	-5.7	-5.4		-4.7	-3.9	-4.4
o/w official	-7.7	-6.8	-6.2			-5.6	-5.3	-5.2	-5.1	-5.0	-4.7		-4.0	-3.3	
Other current account flows (negative = net inflow)	4.0	1.0	-0.7			0.3	0.9	1.0	1.0	1.2	1.1		0.7	2.8	
Net FDI (negative = inflow)	**-5.9**	**-8.8**	**-8.1**	**-5.8**	**2.5**	**-7.2**	**-7.1**	**-6.5**	**-7.0**	**-6.7**	**-6.8**		**-6.3**	**-5.3**	-5.8
Endogenous debt dynamics 2/	**-10.3**	**0.7**	**3.2**			**-1.8**	**-2.1**	**-2.2**	**-2.2**	**-2.4**	**-2.4**		**-2.0**	**-1.8**	
Contribution from nominal interest rate	2.2	1.5	1.6			1.5	1.5	1.6	1.7	1.6	1.5		1.3	1.6	
Contribution from real GDP growth	-3.8	-3.8	-3.9			-3.4	-3.6	-3.8	-3.8	-4.0	-3.9		-3.4	-3.4	
Contribution from price and exchange rate changes	-8.7	3.0	5.5			…	…	…	…	…	…		…	…	
Residual (3-4) 3/	**0.0**	**-6.5**	**-3.3**			**-4.8**	**-0.2**	**-0.3**	**0.6**	**0.5**	**-0.7**		**-1.7**	**-1.2**	
o/w exceptional financing	0.0	-4.7	-2.1			-3.3	0.0	0.0	0.0	0.0	0.0		0.0	-1.1	
PV of external debt 4/	...	...	45.7			42.1	41.8	41.6	41.5	41.3	40.1		36.4	39.9	
In percent of exports	...	...	154.9			152.8	145.9	146.4	145.4	143.1	138.6		125.2	129.8	
PV of PPG external debt	**...**	**...**	**20.2**			**23.3**	**26.5**	**29.0**	**30.9**	**31.9**	**31.6**		**28.0**	**23.0**	
In percent of exports	**...**	**...**	**68.4**			**84.7**	**92.7**	**102.1**	**108.4**	**110.4**	**109.3**		**96.4**	**74.7**	
In percent of government revenues	**...**	**...**	**102.9**			**115.5**	**128.7**	**137.2**	**144.3**	**147.9**	**145.0**		**124.0**	**90.0**	
Debt service-to-exports ratio (in percent)	**19.2**	**17.8**	**15.9**			**12.6**	**15.5**	**15.7**	**17.6**	**16.9**	**16.9**		**14.8**	**17.7**	
PPG debt service-to-exports ratio (in percent)	**1.6**	**1.7**	**2.3**			**2.2**	**3.6**	**4.9**	**6.3**	**7.5**	**7.8**		**6.7**	**4.8**	
PPG debt service-to-revenue ratio (in percent)	**3.1**	**2.6**	**3.4**			**3.0**	**4.9**	**6.5**	**8.4**	**10.1**	**10.4**		**8.6**	**5.8**	
Total gross financing need (Billions of U.S. dollars)	1.0	0.7	0.5			0.7	0.9	1.1	1.2	1.3	1.4		2.4	8.8	
Non-interest current account deficit that stabilizes debt ratio	16.2	14.6	8.1			13.8	9.5	9.1	8.5	8.6	10.0		10.1	8.3	
Key macroeconomic assumptions															
Real GDP growth (in percent)	6.8	6.3	6.6	8.0	1.8	7.2	7.5	7.9	7.8	7.8	7.8	7.7	7.3	7.4	7.3
GDP deflator in US dollar terms (change in percent)	14.6	-4.6	-8.8	1.2	9.2	15.3	3.9	3.0	1.9	0.9	1.7	4.5	3.6	3.0	3.4
Effective interest rate (percent) 5/	4.0	2.5	2.7	3.4	0.9	3.3	3.1	3.3	3.4	3.1	3.0	3.2	2.9	3.5	3.1
Growth of exports of G&S (US dollar terms, in percent)	11.8	-14.0	4.9	16.4	15.6	15.4	16.0	10.2	10.4	10.1	9.9	12.0	11.3	12.4	11.4
Growth of imports of G&S (US dollar terms, in percent)	25.7	-2.6	-0.2	12.0	11.3	17.3	11.1	9.8	9.2	9.0	9.3	10.9	10.2	11.0	10.8
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	24.8	24.6	26.2	28.2	30.4	33.5	28.0	36.2	34.3	35.0
Government revenues (excluding grants, in percent of GDP)	15.9	17.4	19.6			20.2	20.6	21.1	21.4	21.6	21.8		22.6	25.5	23.5
Aid flows (in Billions of US dollars) 6/	1.2	0.9	0.8			1.4	1.5	1.7	1.8	2.0	2.2		3.0	6.3	
o/w Grants	0.9	0.9	0.8			0.9	1.0	1.0	1.1	1.2	1.3		1.8	3.5	
o/w Concessional loans	0.2	0.0	0.0			0.5	0.5	0.6	0.7	0.8	0.9		1.2	2.8	
Grant-equivalent financing (in percent of GDP) 7/	...	...	...			9.3	9.0	8.9	8.8	8.7	8.6		7.1	5.0	6.4
Grant-equivalent financing (in percent of external financing) 7/	...	...	...			60.8	60.7	62.1	64.2	66.4	68.9		70.2	66.6	68.4
Memorandum items:															
Nominal GDP (Billions of US dollars)	9.9	10.1	9.8			12.1	13.5	15.1	16.5	18.0	19.7		32.9	94.2	
Nominal dollar GDP growth	22.4	1.4	-2.8			23.6	11.8	11.1	9.9	8.8	9.7	12.5	11.1	10.7	11.0
PV of PPG external debt (in Billions of US dollars)			2.0			2.7	3.5	4.2	4.9	5.5	6.1		9.1	21.4	
(PVt-PVt-1)/GDPt-1 (in percent)						**7.6**	**6.3**	**5.5**	4.5	3.6	3.0	**5.1**	2.3	2.1	2.3
Gross workers' remittances (Billions of US dollars)	…	…	…			…	…	…	…	…	…		…	…	
PV of PPG external debt (in percent of GDP + remittances)	...	...	20.2			23.3	26.5	29.0	30.9	31.9	31.6		28.0	23.0	
PV of PPG external debt (in percent of exports + remittances)	...	...	68.4			84.7	92.7	102.1	108.4	110.4	109.3		96.4	74.7	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	2.3			2.2	3.6	4.9	6.3	7.5	7.8		6.7	4.8	

Sources: Country authorities; and staff estimates and projections. 0

1/ Includes both public and private sector external debt. Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.
2/ Derived as [r - g - ?(1+g)]/(1+g+?+g?) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ? = growth rate of GDP deflator in U.S. dollar terms.
3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.
4/ Assumes that PV of private sector debt is equivalent to its face value.
5/ Current-year interest payments divided by previous period debt stock.
6/ Defined as grants, concessional loans, and debt relief.
7/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

Table 1b.Mozambique: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2011-2031
(In percent)

	Projections							
	2011	2012	2013	2014	2015	2016	**2021**	2031
PV of debt-to GDP ratio								
Baseline	23	27	29	31	32	32	**28**	23
A. Alternative Scenarios 1/								
A1. Key variables at their historical averages in 2011-2031 2/	23	28	32	35	38	39	**40**	32
A3. Alternative Scenario: No Growth Impact of NCB-Financed Investment	23	26	30	32	34	35	34	33
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	23	26	29	31	32	32	**28**	23
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	23	28	34	35	35	35	**30**	23
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	23	29	36	38	39	39	**35**	29
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	23	30	35	37	37	37	**31**	24
B5. Combination of B1-B4 using one-half standard deviation shocks	23	32	41	42	43	42	**36**	27
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	23	36	40	42	43	43	**39**	32
PV of debt-to-exports ratio								
Baseline	85	93	102	108	110	109	**96**	75
A. Alternative Scenarios 1/								
A1. Key variables at their historical averages in 2011-2031 2/	85	98	113	124	130	135	**139**	105
A3. Alternative Scenario: No Growth Impact of NCB-Financed Investment	82	92	104	112	117	121	118	106
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	85	90	99	104	106	106	**95**	74
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	85	109	140	145	146	144	**124**	90
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	85	90	99	104	106	106	**95**	74
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	85	104	125	128	129	127	**108**	77
B5. Combination of B1-B4 using one-half standard deviation shocks	85	108	131	134	135	133	**114**	81
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	85	90	99	104	106	106	**95**	74
PV of debt-to-revenue ratio								
Baseline	115	129	137	144	148	145	**124**	90
A. Alternative Scenarios 1/								
A1. Key variables at their historical averages in 2011-2031 2/	115	136	152	165	174	179	**179**	127
A3. Alternative Scenario: No Growth Impact of NCB-Financed Investment	112	128	140	149	157	160	152	127
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	115	127	137	143	146	145	**126**	91
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	115	136	159	162	164	161	**135**	92
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	115	141	169	175	180	178	**154**	112
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	115	145	168	171	172	169	**139**	93
B5. Combination of B1-B4 using one-half standard deviation shocks	115	154	193	197	199	195	**161**	107
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	115	176	187	195	200	198	**172**	125

Table 1b. Mozambique: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2011-2031 (continued)
(In percent)

				Debt service-to-exports ratio				
Baseline	2	4	5	6	8	8	**7**	5
A. Alternative Scenarios 1/								
A1. Key variables at their historical averages in 2011-2031 2/	2	4	5	7	8	9	**9**	7
A3. Alternative Scenario: No Growth Impact of NCB-Financed Investment	2	4	5	7	8	9	10	10
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	2	4	5	6	8	8	**7**	5
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	2	4	6	8	9	10	**9**	6
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	2	4	5	6	8	8	**7**	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	2	4	5	7	8	8	**8**	5
B5. Combination of B1-B4 using one-half standard deviation shocks	2	4	5	7	8	9	**8**	5
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	2	4	5	6	8	8	**7**	5
				Debt service-to-revenue ratio				
Baseline	3	5	7	8	10	10	**9**	6
A. Alternative Scenarios 1/								
A1. Key variables at their historical averages in 2011-2031 2/	3	5	7	9	11	11	**11**	9
A3. Alternative Scenario: No Growth Impact of NCB-Financed Investment	3	5	7	9	11	12	13	12
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	3	5	7	9	10	11	**9**	6
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	3	5	7	9	11	11	**10**	6
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	3	6	8	11	13	13	**11**	7
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	3	5	7	9	11	11	**10**	6
B5. Combination of B1-B4 using one-half standard deviation shocks	3	5	8	11	13	13	**11**	7
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	3	7	9	12	14	15	**12**	8
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline)	25	25	25	25	25	25	**25**	25

Sources: Country authorities; and staff estimates and projections.

1/ The stress test A2 (borrowing in less concessional terms) has not been included in this case (in line with the 2010 DSA). Given the commercial financing terms already included in the baseline for the investment projects, this scenario would yield unrealistic results, as marginal borrowing under this shock is calculated on the average terms of new borrowing; therefore assuming harsher terms than Mozambique would actually face in the need to cover a financing gap.

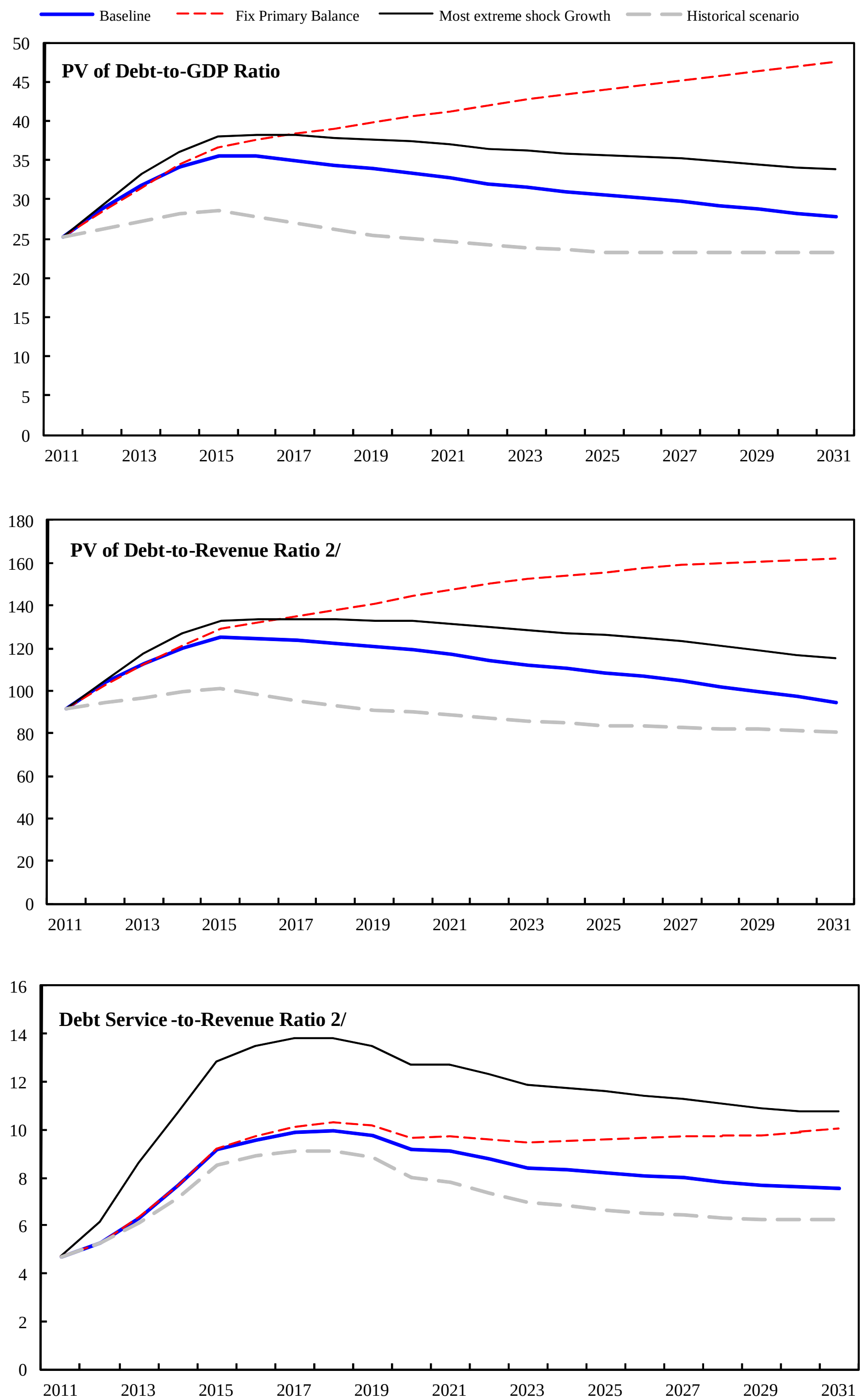
2/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

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.

Figure 2.Mozambique: Indicators of Public Debt Under Alternative Scenarios, 2011-2031 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 2a.Mozambique: Public Sector Debt Sustainability Framework, Baseline Scenario, 2008-2031
(In percent of GDP, unless otherwise indicated)

	Actual			Average	Standard Deviation	Estimate	Projections								
	2008	2009	2010			2011	2012	2013	2014	2015	2016	2011-16 Average	2021	2031	2017-31 Average
Public sector debt 1/	42.1	39.7	35.3			37.2	40.9	44.3	47.4	49.3	49.6		46.9	39.6	
o/w foreign-currency denominated	38.0	36.5	32.5			35.2	38.7	41.6	44.2	45.8	45.8		42.3	34.9	
Change in public sector debt	0.2	-2.5	-4.4			1.9	3.7	3.4	3.0	2.0	0.3		-0.9	-0.7	
Identified debt-creating flows	-5.2	3.9	2.8			0.8	2.6	2.3	2.2	1.4	0.4		-0.8	-0.5	
Primary deficit	-1.6	4.9	2.9	2.6	1.8	5.5	5.8	5.5	4.8	4.2	4.1	5.0	2.8	2.3	2.8
Revenue and grants	25.3	26.7	27.7			27.6	27.7	28.1	28.3	28.4	28.5		28.0	29.2	
of which: grants	9.4	9.4	8.1			7.3	7.1	7.0	6.9	6.8	6.7		5.4	3.7	
Primary (noninterest) expenditure	23.8	31.7	30.6			33.0	33.5	33.5	33.1	32.6	32.5		30.8	31.5	
Automatic debt dynamics	-3.4	-0.8	0.0			-4.7	-3.2	-3.2	-2.6	-2.8	-3.6		-3.6	-2.8	
Contribution from interest rate/growth differential	-6.9	-0.5	1.3			-5.7	-3.0	-3.2	-3.0	-2.8	-3.2		-3.6	-2.8	
of which: contribution from average real interest rate	-4.3	2.0	3.8			-3.3	-0.4	-0.2	0.2	0.7	0.4		-0.4	0.0	
of which: contribution from real GDP growth	-2.7	-2.5	-2.5			-2.4	-2.6	-3.0	-3.2	-3.4	-3.6		-3.2	-2.8	
Contribution from real exchange rate depreciation	3.6	-0.3	-1.3			1.0	-0.2	0.0	0.4	0.0	-0.4		...	...	
Other identified debt-creating flows	-0.3	-0.3	-0.2			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	0.0	-0.2	-0.1			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)	-0.3	-0.1	-0.1			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	5.5	-6.4	-7.1			1.1	1.1	1.2	0.8	0.5	-0.1		0.0	-0.2	
Other Sustainability Indicators															
PV of public sector debt	...	...	23.0			25.3	28.7	31.7	34.1	35.4	35.4		32.7	27.7	
o/w foreign-currency denominated	...	...	20.2			23.3	26.5	29.0	30.9	31.9	31.6		28.0	23.0	
o/w external	...	...	20.2			23.3	26.5	29.0	30.9	31.9	31.6		28.0	23.0	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	-0.4	5.9	4.4			6.8	7.3	7.2	6.9	6.8	6.8		5.4	4.5	
PV of public sector debt-to-revenue and grants ratio (in percent)	…	…	83.1			91.8	103.6	112.8	120.4	125.0	124.4		116.8	94.7	
PV of public sector debt-to-revenue ratio (in percent)	…	…	117.3			125.1	139.2	150.0	158.9	164.3	162.5		144.4	108.5	
o/w external 3/	…	…	102.9			115.5	128.7	137.2	144.3	147.9	145.0		124.0	90.0	
Debt service-to-revenue and grants ratio (in percent) 4/	4.8	3.5	5.3			4.7	5.3	6.3	7.7	9.2	9.6		9.1	7.6	
Debt service-to-revenue ratio (in percent) 4/	7.6	5.4	7.5			6.4	7.1	8.4	10.1	12.0	12.5		11.3	8.7	
Primary deficit that stabilizes the debt-to-GDP ratio	-1.8	7.4	7.3			3.6	2.1	2.0	1.8	2.2	3.8		3.7	3.0	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	6.8	6.3	6.6	8.0	1.8	7.2	7.5	7.9	7.8	7.8	7.8	7.7	7.3	7.4	7.3
Average nominal interest rate on forex debt (in percent)	0.7	0.6	0.6	0.8	0.6	1.2	1.6	1.8	1.9	1.9	1.9	1.7	1.6	1.5	1.6
Average real interest rate on domestic debt (in percent)	1.5	2.7	7.8	12.2	16.2	14.2	16.9	9.9	8.9	8.9	8.5	11.2	8.5	11.4	9.3
Real exchange rate depreciation (in percent, + indicates depreciation)	11.4	-0.8	-3.4	-0.3	11.9	3.8	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	8.4	5.4	12.6	8.7	3.0	9.6	7.5	6.0	5.9	5.9	5.8	6.8	5.7	5.1	5.7
Growth of real primary spending (deflated by GDP deflator, in percent)	-0.1	0.4	0.0	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Grant element of new external borrowing (in percent)	...	...	...	…	…	24.8	24.6	26.2	28.2	30.4	33.5	28.0	36.2	34.3	...

Sources: Country authorities; and staff estimates and projections.

1/ Includes central government external PPG debt and net domestic debt. Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

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.

Table 2b.Mozambique: Sensitivity Analysis for Key Indicators of Public Debt 2011-2031

	Projections							
	2011	2012	2013	2014	2015	2016	2021	2031
PV of Debt-to-GDP Ratio								
Baseline	25	29	32	34	35	35	33	28
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	25	26	27	28	29	28	25	23
A2. Primary balance is unchanged from 2011	25	28	31	34	37	38	41	47
A3. Permanently lower GDP growth 1/	25	29	32	35	37	37	37	39
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	25	29	33	36	38	38	37	34
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	25	28	30	32	34	34	32	27
B3. Combination of B1-B2 using one half standard deviation shocks	25	27	29	32	33	34	32	29
B4. One-time 30 percent real depreciation in 2012	25	38	39	41	41	40	35	28
B5. 10 percent of GDP increase in other debt-creating flows in 2012	25	36	39	41	42	41	37	29
PV of Debt-to-Revenue Ratio 2/								
Baseline	92	104	113	120	125	124	117	95
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	92	95	97	100	101	98	88	81
A2. Primary balance is unchanged from 2011	92	103	112	121	129	132	148	162
A3. Permanently lower GDP growth 1/	92	104	114	123	128	129	130	133
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	92	105	117	127	133	133	131	115
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	92	100	106	114	119	119	113	93
B3. Combination of B1-B2 using one half standard deviation shocks	92	98	103	111	117	118	116	100
B4. One-time 30 percent real depreciation in 2012	92	136	139	143	145	142	124	97
B5. 10 percent of GDP increase in other debt-creating flows in 2012	92	130	137	143	147	145	131	101
Debt Service-to-Revenue Ratio 2/								
Baseline	5	5	6	8	9	10	9	8
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	5	5	6	7	9	9	8	6
A2. Primary balance is unchanged from 2011	5	5	6	8	9	10	10	10
A3. Permanently lower GDP growth 1/	5	5	6	8	9	10	10	9
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	5	5	6	8	9	10	10	8
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	5	5	6	7	9	9	9	7
B3. Combination of B1-B2 using one half standard deviation shocks	5	5	6	7	9	9	9	8
B4. One-time 30 percent real depreciation in 2012	5	6	9	11	13	13	13	11
B5. 10 percent of GDP increase in other debt-creating flows in 2012	5	5	7	9	10	10	10	8

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.