INTERNATIONAL MONETARY FUND AND
INTERNATIONAL DEVELOPMENT ASSOCIATION

KINGDOM OF LESOTHO

Joint World Bank/IMF Debt Sustainability Analysis

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The International Development Association

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This debt sustainability analysis for low-income countries (LIC DSA) updates the one completed and presented to the IMF Board, on February 22, 2010, together with the 2009 Article IV Staff Report (SM/10/31, SUP. 1)*. A key revision is the incorporation of a new nonconcessional external loan for construction of the Metolong dam. As a result, Lesotho's risk of debt distress has risen, but the PV of debt to GDP ratio is still projected to return to a manageable level over the medium term as the fiscal position improves. If the significant amount of remittances to Lesotho is taken into account, the modified debt ratios decline significantly and the risk of debt distress is substantially reduced to moderate. Lesotho remains vulnerable to adverse shocks to the exchange rate or real GDP growth, as well as to a permanent decline in the level of SACU receipts. These results underscore the need to curtail additional nonconcessional borrowing, realign spending with its sustainable long-run level of SACU revenues, and accelerate structural reforms to boost productivity and competitiveness in order to accelerate medium-term growth.*

I. INTRODUCTION

1. **This updated DSA has been prepared by the IMF staff as an annex to the request for a three-year ECF arrangement.** The DSA comprises external and domestic debt, and is based on the framework for low-income countries approved by the respective Executive Boards. Given the importance of remittances in enhancing Lesotho's capacity to repay debt, the DSA uses the remittance-modified debt indicators to assess the risk of debt distress.[1] The framework takes into account indicative thresholds for debt burden indicators determined by the quality of the country's policies and institutions,[2] and comprises baseline and alternative scenarios.

2. **Lesotho's nominal public sector debt declined from 52 percent of GDP at end-2008 to 40 percent at end-2009, mainly because of a significant (21 percent) appreciation of the loti/dollar exchange rate.** Of the total public sector debt, US$664 million was owed to external creditors, almost entirely to multilaterals (US$611 million), mainly IDA and the African Development Fund. Public domestic debt (held by residents) amounted to US$72 million at the end of 2009; at present, domestic debt is limited to Treasury bills issued for liquidity management and is not used for budget financing.

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[1] See "Applying the Debt Sustainability Framework for Low-Income Countries Post Debt Relief," (IDA/SecM2006-0564 and SM/07/131) and "Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework for Low-Income Countries," (SM/10/16).

[2] The World Bank Country Policy and Institutional Assessment has ranked Lesotho using the three-year moving average as a "medium performer" in terms of policy and institutions with a rating of 3.53. The applicable indicative thresholds for debt sustainability (DSF), proposed under the framework for low-income countries are: (i) 40 percent for the NPV of debt-to-GDP ratio, (ii) 150 percent for NPV of debt-to-exports ratio; (iii) 250 percent for the NPV of debt-to-fiscal revenues ratio; (iv) 20 percent for the debt service to exports ratio; and (v) 30 percent for the debt service to revenue ratio.

Lesotho: Public Debt Outstanding at end-2009

	In Millions of USD	In Percent of GDP
Total public debt	736.5	40.2
Domestic debt	72.2	3.9
External debt	664.3	36.3
Multilateral	611.1	33.4
World Bank Group	317.7	17.0
African Development Fund	215.9	11.6
EU	25.7	1.6
IMF	23.6	1.5
Others	28.2	1.7
Bilateral	45.7	2.4
Commercial	7.5	0.4

Source: Ministry of Finance and Development Planning

3. **The large decline in SACU revenues projected for 2010/11 remains the key driver of fiscal and external outlook as well as future debt dynamics.** The resulting increase in public debt will depend on the extent to which the authorities are able to implement offsetting expenditure measures and mobilize financing from donors on concessional terms. While the level of SACU revenues is expected to increase as South Africa's economy recovers, it is unlikely to return to the very high levels recorded in recent years. In addition, there is considerable uncertainty regarding the level of SACU revenues over the longer term, with the possibility of revisions to the revenue-sharing formula that would lower the share of the Common Revenue Pool (CRP) allocated to the BLNS countries.

II. Macroeconomic Assumptions

4. **The underlying macroeconomic assumptions for this DSA differ from those of the February 2010 DSA in the following respects:** The fiscal and external account deficits are wider, but the average real GDP growth rate (2010–15) and debt outstanding are higher as a result of debt-financed spending for the Metolong dam project and the proposed Fund disbursements.

- Output growth is now expected to average 5.7 percent annually during 2010–15, boosted by construction of the Metolong dam (starting in 2010/11), as against 5.3 percent previously. Initial construction of the LHWPII is expected to begin in 2012, with the largest expenditures taking place during 2015–19. Growth in 2015 is projected to reach 12.1 percent due to the impact of the LHWPII.

- Inflation (as measured by the implicit GDP deflator) is assumed to move from an average of 7.7 percent over 2000–09 (elevated in part by the food and energy price shocks in 2007–08) to 3 percent over the longer term, in line with projected consumer price inflation in South Africa.

- The average fiscal deficit has widen by 3.5 percent of GDP to an annual average deficit of 14.6 percent of GDP during 2010/11–2012/13, owing to higher debt-finance capital spending related to the Metolong dam project.

- The profile of SACU repayments has been revised to reflect two repayments in 2010/11 and 2011/12 rather than the previous assumption of three payments stretching to 2012/13. The fiscal position is projected to return to a surplus of 1.3 percent of GDP in 2015/16 compared with a balanced position in the previous DSA, in line with a sharper reduction in expenditure. Like in the previous DSA, this one assumes that the deficits will be financed by combination of drawing down government deposit with the CBL, donors' budget support and new borrowings, including domestic debt issuance.

- The DSA prepared for the Article IV assumed new bilateral borrowing of US$120 million during 2011–12 to offset the SACU shortfall, at an interest rate of 6 percent and maturity of 10 years. The current DSA does not make such an assumption. Instead, the authorities intend to use their deposits to cover the revenue shortfall.

- The current account balance (including official transfers) which broadly reflects changes in the fiscal position has widened by 5 percent of GDP to an average of 21 percent of GDP during 2010–12, reflecting projected higher imports related to the Metolong dam. However, by 2014 the external current deficit narrows to about the same level as in the previous DSA.

- The DSA assumes Fund access amounting to 120 percent of quota which is equivalent to 3.4 percent of GDP (2010). The proposed access would raise the PV of debt to GDP by an average of about 2 percent of GDP during the period 2010–15. The debt service ratios would remain broadly the same (averaging 4.6 percent during 2010–15) in the scenario with or without Fund disbursement. Given the concessional nature of Fund lending, the proposed access is consistent with Lesotho's debt sustainability.

III. External debt sustainability

Baseline

5. **Lesotho's PV of external debt stood at 28.3 percent of GDP in 2010 (Table 1a)** and is projected to rise to 42.2 percent by 2015, above the 40 percent indicative threshold, mainly because of the new nonconcessional borrowing for the Metolong dam. This breach of the threshold lasts for 9 years, before declining to 15.3 percent by 2030. The PV of debt

relative to exports and to revenues would also rise through 2020, but remain well below the indicative thresholds. There would also be a modest increase in the ratio of debt service to exports (from 4.2 to 7.3 percent) and debt service to revenues (from 4.4 to 7.2 percent), but debt service ratios would remain well below the thresholds due to the highly concessional nature of existing debt.

6. **Lesotho's debt ratios fall considerably if remittances (mainly from Basotho working in South Africa) are also included in the assessment (Figures 3-4).** Specifically, the PV of external debt to the sum of GDP and remittances would reach about 34 percent by 2015, slightly lower than the modified threshold of 36 percent, and fall thereafter to 12.3 percent by 2030. Similarly, the PV of external debt to exports and gross remittances peaks at 61.3 percent in 2015, well below the modified threshold of 135 percent.[3]

Alternative scenarios and stress tests

7. **Sensitivity tests show that Lesotho's debt burden would increase, but still fall below the indicative threshold for PV of debt to GDP by 2030, in the event of less favorable public sector borrowing terms (Table 1b and Figure 1).** In a scenario in which the interest rate on new public sector loans is 2 percentage points higher than the baseline assumption (scenario A2), the PV of debt-to-GDP ratio reaches 47 percent in 2020, but falls to 19 percent by 2030. In a scenario in which the key variables are set at their average of the past 10 years, Lesotho's debt ratios would be well below the baseline, reflecting the large fiscal surpluses over this period relative to the projected significant deterioration in the fiscal position.

8. **The bound tests reveal that Lesotho would face the most distress if there were to be a significant terms of trade shock (scenario B3) or a large nominal depreciation (scenario B6)**. In a scenario with terms of trade shock in 2010–11, the PV of debt-to-GDP ratio would increase to 54 percent by 2020 and then ease to 19 percent by 2030. In the event of a one-time 30 percent depreciation of the nominal exchange rate (B6), the PV of debt-to-GDP ratio would similarly increase to 60 percent by 2020, but then fall to 21 percent by 2030.

Country-specific scenario

9. **The increase in debt levels from 2010 and beyond is largely attributable to the increase in borrowing to finance the Metolong dam and the second phase of the**

[3] For a country facing a DSF threshold of 150 percent of exports for its PV of debt, the remittance modified debt indicator should not exceed 135 percent. Similarly, where the DSF threshold is 40 percent of GDP, the remittance modified indicator should not exceed 36 percent of GDP.

LHWP.[4] With construction of the Metolong dam underway, an alternative scenario was performed assuming that the LHWPII does not go forward as planned. In this scenario (scenario A3), the PV of debt to GDP ratio would rise to 40 percent in 2013, but would then decline to 5 percent by 2030.

IV. Public Sector Debt Sustainability

Baseline

10. **Domestic debt remained relatively low at the end of 2009, leaving public debt indicators very closely aligned to those of public external debt (Table 2a).** Domestic debt is currently limited to Treasury bills issued by the Central Bank of Lesotho for liquidity management, and is not used for budget financing. Longer-term domestic debt issuance as a source of budget finance is expected to begin in 2010/11 and to increase over the medium term, as the government taps institutional investors that currently place almost all of their assets abroad due to the lack of domestic investment options. Borrowing rates are projected to follow interest rates in South Africa, but will depend on investors' perceptions of relative creditworthiness. Domestic debt is projected to increase to 8.2 percent of GDP by 2030, reflecting a gradual expansion of the domestic debt market as a source of budget finance.

Alternative scenarios and stress tests

11. **In the standard sensitivity tests, public sector debt ratios are most sensitive to slower than projected growth (Table 2b and Figure 2)**. Lower long-run real GDP growth results in the PV of debt to GDP ratio rising steadily from 33 percent in 2010 to 63 percent in 2020 and 71 percent by 2030, compared with 23 percent in the baseline scenario in 2030. This scenario illustrates the vulnerability of the debt trajectory in the event that the ongoing program of infrastructure investment and structural reforms fails to generate sufficient improvement in productivity and competitiveness needed to support the higher real GDP growth rates projected over the medium term.

Country-specific scenario

12. **In a customized scenario featuring a permanent decline in SACU revenues, the ratio of public sector debt to GDP also rises.** The baseline scenario already incorporates the projected decline in SACU transfers to Lesotho in 2010/11 and 2011/12 as a result of the economic downturn in South Africa and repayments owed on excess disbursements in previous years. However, the extent of the medium-term recovery in SACU transfers remains unclear, given the possibility of an adjustment to the revenue-sharing formula that could

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[4] The staff's baseline scenario assumes disbursements related to construction of Metolong dam on the order of US$66 million (equivalent to 3.3 percent of GDP) per year during 2011–13. In the case of LHWPII the disbursements average US$53 million (equivalent to 2.2 percent of GDP) per year during 2013–19.

reduce distributions to the BLNS or further reductions in the common external tariff that would also lower collections of the CRP. The baseline scenario assumes that Lesotho's SACU revenues recover to 20.5 percent of GDP by 2012/13 and subsequently stabilize at about 19.4 percent of GDP; the sensitivity scenario assumes that SACU revenues plateau at 15 percent of GDP, with the lower revenues only partly offset by a decline in expenditures, resulting in additional borrowing to finance the larger fiscal deficits that result. In a scenario in which SACU transfers are held at this lower level (Table 2b; scenario A4), the PV of debt to GDP ratio reaches 54 percent by 2020, and declines to 30 percent by 2030.

V. Conclusion

13. **Lesotho's risk of debt distress has increased since the analysis done in February 2010 for the 2009 Article IV consultation owing to a new nonconcessional loan for construction of the Metolong dam.** The risk of debt distress is magnified in the event of adverse shocks to economic growth, large exchange rate depreciation, or a lower long-run level of SACU revenues. The risks appear manageable over the medium term if the authorities implement the planned fiscal adjustments. Hence, these results underscore the critical need to realign spending with the sustainable level of SACU revenues, while accelerating structural reforms to boost productivity and competitiveness in order to accelerate medium-term growth.

14. **The significant level of gross remittances from migrant workers received by Lesotho mitigates debt vulnerabilities substantially.** When these remittances are taken into account, Lesotho remains at a moderate risk of debt distress. In particular, the PV of external debt to the sum of GDP and gross remittances would peak at 34.4 percent in 2020 (below the modified threshold of 36 percent), compared with a ratio of 43.1 percent excluding these transfers. Thus, using the remittance-modified debt indicators, Lesotho's debt ratios are well below the modified threshold.

Table 1a. External Debt Sustainability Framework, Baseline Scenario, 2007–2030 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical 0 Average 6/	0 Standard Deviation 6/	Projections									
	2007	2008	2009			2010	2011	2012	2013	2014	2015	2010-2015 Average	2020	2030	2016-2030 Average
External debt (nominal) 1/	**50.9**	**47.2**	**36.3**			**40.1**	**43.7**	**46.8**	**49.5**	**49.1**	**48.5**		**44.7**	**16.2**	
o/w public and publicly guaranteed (PPG)	50.9	47.2	36.3			40.1	43.7	46.8	49.5	49.1	48.5		44.7	16.2	
Change in external debt	2.0	-3.7	-10.9			3.8	3.6	3.1	2.7	-0.4	-0.6		-3.2	-2.9	
Identified net debt-creating flows	-25.6	-15.9	-4.4			17.6	18.8	14.5	5.4	1.0	0.2		-5.3	-5.4	
Non-interest current account deficit	**-18.1**	**-9.8**	**0.9**	**5.0**	**13.1**	**22.6**	**23.2**	**19.4**	**9.2**	**5.6**	**7.9**		**-1.2**	**-1.8**	0.5
Deficit in balance of goods and services	52.8	53.9	59.9			63.3	58.9	59.6	50.8	49.5	52.3		42.2	41.3	
Exports	55.8	58.6	49.7			47.4	47.9	46.8	48.9	46.8	43.6		45.8	47.8	
Imports	108.6	112.5	109.6			110.7	106.9	106.4	99.7	96.3	95.9		88.0	89.1	
Net current transfers (negative = inflow)	-39.8	-32.0	-32.1	-24.9	7.6	-17.1	-11.3	-16.9	-18.0	-17.9	-17.8		-17.7	-17.4	-17.6
o/w official	-23.6	-39.3	-31.4			-28.9	-16.4	-10.6	-16.1	-17.1	-16.1		-17.1	-16.8	
Other current account flows (negative = net inflow)	-31.1	-31.7	-26.9			-23.5	-24.4	-23.3	-23.6	-26.0	-26.6		-25.7	-25.6	
Net FDI (negative = inflow)	**-6.7**	**-5.8**	**-5.0**	**-5.0**	**1.0**	**-3.6**	**-3.6**	**-3.4**	**-3.4**	**-3.4**	**-3.4**		**-3.4**	**-3.4**	-3.4
Endogenous debt dynamics 2/	**-0.8**	**-0.3**	**-0.3**			**-1.5**	**-0.8**	**-1.5**	**-0.4**	**-1.3**	**-4.3**		**-0.7**	**-0.2**	
Contribution from nominal interest rate	4.2	0.3	0.5			0.4	0.4	0.7	0.9	1.1	1.1		1.6	0.7	
Contribution from real GDP growth	-1.1	-2.2	-0.4			-1.8	-1.3	-2.2	-1.3	-2.4	-5.4		-2.3	-0.9	
Contribution from price and exchange rate changes	-3.9	1.6	-0.4			…	…	…	…	…	…		…	…	
Residual (3-4) 3/	**27.6**	**12.2**	**-6.5**			**-13.8**	**-15.2**	**-11.4**	**-2.7**	**-1.4**	**-0.7**		**2.0**	**2.5**	
o/w exceptional financing	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	25.5			28.3	33.0	37.4	41.3	41.3	42.2		43.1	15.3	
In percent of exports	...	...	51.2			59.6	68.9	80.0	84.5	88.2	96.9		94.0	31.9	
PV of PPG external debt	**...**	**...**	**25.5**			**28.3**	**33.0**	**37.4**	**41.3**	**41.3**	**42.2**		**43.1**	**15.3**	
In percent of exports	**...**	**...**	**51.2**			**59.6**	**68.9**	**80.0**	**84.5**	**88.2**	**96.9**		**94.0**	**31.9**	
In percent of government revenues	**...**	**...**	**40.2**			**62.0**	**84.0**	**82.0**	**87.9**	**87.3**	**91.6**		**93.4**	**33.1**	
Debt service-to-exports ratio (in percent)	**10.6**	**2.7**	**4.2**			**4.2**	**4.2**	**4.5**	**4.6**	**4.8**	**5.2**		**7.3**	**6.3**	
PPG debt service-to-exports ratio (in percent)	**10.6**	**2.7**	**4.2**			**4.2**	**4.2**	**4.5**	**4.6**	**4.8**	**5.2**		**7.3**	**6.3**	
PPG debt service-to-revenue ratio (in percent)	**9.5**	**2.5**	**3.3**			**4.4**	**5.1**	**4.6**	**4.8**	**4.8**	**4.9**		**7.2**	**6.6**	
Total gross financing need (Millions of U.S. dollars)	-298.1	-224.5	-33.1			378.8	404.4	357.6	166.7	96.8	160.8		-34.3	-82.2	
Non-interest current account deficit that stabilizes debt ratio	-20.1	-6.1	11.8			18.8	19.6	16.3	6.5	6.1	8.4		2.1	1.2	
Key macroeconomic assumptions															
Real GDP growth (in percent)	2.4	4.5	0.9	3.3	2.0	5.6	3.3	5.3	3.0	5.0	12.1	5.7	5.0	5.0	5.0
GDP deflator in US dollar terms (change in percent)	8.7	-3.1	0.9	5.3	16.7	4.9	0.4	0.5	1.6	-0.4	-1.3	1.0	-1.8	-1.8	-1.8
Effective interest rate (percent) 5/	9.6	0.6	1.1	2.9	3.7	1.1	1.1	1.6	2.0	2.3	2.4	1.8	3.5	3.9	3.5
Growth of exports of G&S (US dollar terms, in percent)	16.0	6.3	-13.7	15.5	18.8	5.6	5.0	3.3	9.3	0.3	2.9	4.4	3.7	3.4	3.7
Growth of imports of G&S (US dollar terms, in percent)	17.2	4.8	-0.9	8.7	13.8	11.9	0.2	5.3	-2.0	1.1	10.1	4.4	-1.6	3.2	2.6
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	31.6	-0.2	-2.0	-3.8	14.6	-5.3	5.8	291.8	121.9	44.6
Government revenues (excluding grants, in percent of GDP)	61.9	62.3	63.4			45.6	39.3	45.6	47.0	47.3	46.1		46.1	46.1	46.1
Aid flows (in Millions of US dollars) 7/	22.3	25.4	61.9			123.0	189.4	173.6	123.9	86.0	82.7		96.3	130.6	
o/w Grants	22.3	25.4	61.9			123.0	189.4	173.6	123.9	86.0	82.7		96.3	130.6	
o/w Concessional loans	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			7.8	10.1	8.6	5.8	4.4	3.2		3.5	3.5	3.3
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			79.5	60.0	55.4	48.0	64.6	36.2		100.0	100.0	85.6
Memorandum items:															
Nominal GDP (Millions of US dollars)	1577.1	1596.0	1623.4			1799.3	1866.9	1975.8	2066.2	2162.1	2391.8		2784.8	3775.0	
Nominal dollar GDP growth	11.3	1.2	1.7			10.8	3.8	5.8	4.6	4.6	10.6	6.7	3.1	3.1	3.1
PV of PPG external debt (in Millions of US dollars)			474.6			493.9	601.9	722.1	833.9	870.7	986.0		1171.0	562.3	
(PVt-PVt-1)/GDPt-1 (in percent)						1.2	**6.0**	**6.4**	**5.7**	1.8	**5.3**	4.4	-1.6	-2.4	-0.7
Gross remittances (Millions of US dollars)	437.4	426.0	381.4			383.2	428.6	441.8	463.8	530.1	605.3		696.2	925.3	
PV of PPG external debt (in percent of GDP + remittances)	...	...	20.6			23.3	26.9	30.6	33.7	33.2	33.7		34.4	12.3	
PV of PPG external debt (in percent of exports + remittances)	...	...	34.8			41.1	46.6	54.1	57.9	57.9	61.3		60.8	21.1	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	2.9			2.9	2.8	3.0	3.2	3.2	3.3		4.7	4.2	

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)]/(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., 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/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.
7/ Defined as grants, concessional loans, and debt relief.
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 1b. Lesotho: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2010–2030
(In percent)

	Projections							
	2010	2011	2012	2013	2014	2015	**2020**	2030
PV of debt-to GDP ratio								
Baseline	28	33	37	41	41	42	**43**	15
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	28	15	7	6	4	4	**0**	14
A2. New public sector loans on less favorable terms in 2010-2030 2	28	31	37	42	43	44	**47**	19
A3. Alternative Scenario :No LHWP2	28	33	37	40	38	35	23	5
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	28	33	39	43	43	44	**44**	15
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	28	35	45	48	48	48	**49**	20
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	28	37	47	52	52	53	**54**	19
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	28	27	31	35	35	36	**36**	11
B5. Combination of B1-B4 using one-half standard deviation shocks	28	25	28	33	33	34	**35**	7
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	28	46	52	57	57	59	**60**	21
PV of debt-to-exports ratio								
Baseline	60	69	80	85	88	97	**94**	32
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	60	32	15	12	9	9	**0**	29
A2. New public sector loans on less favorable terms in 2010-2030 2	60	66	79	85	91	100	**102**	40
A3. Alternative Scenario :No LHWP2	60	69	78	81	82	80	51	11
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	60	67	78	82	86	94	**91**	30
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	60	80	111	115	119	129	**125**	49
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	60	67	78	82	86	94	**91**	30
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	60	57	66	71	74	82	**80**	22
B5. Combination of B1-B4 using one-half standard deviation shocks	60	50	52	57	60	68	**66**	14
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	60	67	78	82	86	94	**91**	30
PV of debt-to-revenue ratio								
Baseline	62	84	82	88	87	92	**93**	33
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	62	39	15	13	9	9	**0**	30
A2. New public sector loans on less favorable terms in 2010-2030 2	62	80	81	89	90	95	**102**	41
A3. Alternative Scenario :No LHWP2	62	84	80	85	81	76	51	12
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	62	84	85	91	90	95	**96**	33
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	62	90	98	103	102	105	**107**	44
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	62	93	103	111	110	115	**117**	40
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	62	69	67	74	73	78	**79**	23
B5. Combination of B1-B4 using one-half standard deviation shocks	62	65	62	69	69	75	**76**	16
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	62	117	114	122	121	127	**129**	45

Table 1b. Lesotho: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2010–2030 (concluded)
(In percent)

	Debt service-to-exports ratio							
Baseline	4	4	5	5	5	5	**7**	6
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	4	4	3	2	2	2	**3**	1
A2. New public sector loans on less favorable terms in 2010-2030 2	4	4	4	5	5	6	**9**	6
A3. Alternative Scenario :No LHWP2	4	4	5	5	5	5	5	3
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	4	4	5	5	5	5	**7**	6
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	4	5	5	6	6	7	**9**	8
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	4	4	5	5	5	5	**7**	6
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	4	4	4	4	4	5	**7**	6
B5. Combination of B1-B4 using one-half standard deviation shocks	4	4	4	4	4	4	**6**	5
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	4	4	5	5	5	5	**7**	6
	Debt service-to-revenue ratio							
Baseline	4	5	5	5	5	5	**7**	7
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	4	5	3	3	2	2	**3**	2
A2. New public sector loans on less favorable terms in 2010-2030 2	4	5	4	5	5	5	**9**	6
A3. Alternative Scenario :No LHWP2	4	5	5	5	5	5	5	3
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	4	5	5	5	5	5	**8**	7
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	4	5	5	5	5	5	**8**	7
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	4	6	6	6	6	6	**9**	8
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	4	5	4	4	4	5	**7**	6
B5. Combination of B1-B4 using one-half standard deviation shocks	4	5	5	5	5	5	**7**	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	4	7	7	7	7	7	**10**	9
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	21	21	21	21	21	21	**21**	21

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 are 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.
6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

Table 2a. Lesotho: Public Sector Debt Sustainability Framework, Baseline Scenario, 2007–2030
(In percent of GDP, unless otherwise indicated)

	Actual			Average	Standard Deviation	Estimate	Projections								
	2007	2008	2009			2010	2011	2012	2013	2014	2015	2010-15 Average	2020	2030	2016-30 Average
Public sector debt 1/	56.7	52.1	40.2			45.2	49.8	53.1	55.3	54.4	52.4		51.3	24.4	
o/w foreign-currency denominated	50.9	47.2	36.3			40.1	43.7	46.8	49.5	49.1	48.5		44.7	16.2	
Change in public sector debt	0.5	-4.6	-11.9			5.0	4.6	3.3	2.2	-0.9	-1.9		-2.9	-2.9	
Identified debt-creating flows	-19.3	3.7	-10.1			17.2	16.2	6.3	0.8	-1.4	-6.3		-2.5	-1.8	
Primary deficit	-14.6	-3.5	1.1	-3.4	7.0	14.5	17.6	8.4	2.1	-0.3	-2.2	6.7	-2.6	-1.9	-2.3
Revenue and grants	63.3	63.9	67.2			52.4	49.5	54.4	53.0	51.3	49.6		49.6	49.6	
of which: grants	1.4	1.6	3.8			6.8	10.1	8.8	6.0	4.0	3.5		3.5	3.5	
Primary (noninterest) expenditure	48.8	60.4	68.2			66.9	67.1	62.8	55.1	51.0	47.3		47.0	47.7	
Automatic debt dynamics	-4.7	7.2	-11.1			2.8	-1.4	-2.0	-1.3	-1.1	-4.1		0.1	0.1	
Contribution from interest rate/growth differential	-3.7	-8.6	-3.3			-3.7	-3.3	-4.1	-2.8	-3.6	-6.8		-3.0	-1.2	
of which: contribution from average real interest rate	-2.4	-6.2	-2.8			-1.5	-1.8	-1.6	-1.3	-1.0	-0.9		-0.4	0.1	
of which: contribution from real GDP growth	-1.3	-2.4	-0.4			-2.1	-1.4	-2.5	-1.5	-2.6	-5.9		-2.6	-1.3	
Contribution from real exchange rate depreciation	-1.0	15.8	-7.9			6.4	1.9	2.1	1.5	2.6	2.7		...	...	
Other identified debt-creating flows	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.0			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)	0.0	0.0	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	19.8	-8.3	-1.9			-12.2	-11.5	-3.0	1.3	0.5	4.4		-0.4	-1.2	
Other Sustainability Indicators															
PV of public sector debt	5.8	4.9	29.3			33.3	39.1	43.8	47.1	46.6	46.2		49.7	23.5	
o/w foreign-currency denominated	0.0	0.0	25.5			28.3	33.0	37.4	41.3	41.3	42.2		43.1	15.3	
o/w external	...	...	25.5			28.3	33.0	37.4	41.3	41.3	42.2		43.1	15.3	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	-8.7	-1.9	3.2			16.8	19.8	10.8	4.8	2.4	0.4		1.2	1.7	
PV of public sector debt-to-revenue and grants ratio (in percent)	9.2	7.7	43.7			63.6	79.1	80.5	89.0	90.9	93.1		100.3	47.4	
PV of public sector debt-to-revenue ratio (in percent)	9.4	7.9	46.3			73.1	99.5	95.9	100.3	98.6	100.1		107.8	51.0	
o/w external 3/	…	…	40.2			62.0	84.0	82.0	87.9	87.3	91.6		93.4	33.1	
Debt service-to-revenue and grants ratio (in percent) 4/	9.3	2.5	3.1			4.5	4.6	4.5	5.0	5.2	5.3		7.5	7.2	
Debt service-to-revenue ratio (in percent) 4/	9.5	2.5	3.3			5.1	5.8	5.3	5.6	5.7	5.7		8.1	7.8	
Primary deficit that stabilizes the debt-to-GDP ratio	-15.1	1.2	13.0			9.4	12.9	5.0	0.0	0.6	-0.3		0.3	1.1	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	2.4	4.5	0.9	3.3	2.0	5.6	3.3	5.3	3.0	5.0	12.1	5.7	5.0	5.0	5.0
Average nominal interest rate on forex debt (in percent)	9.6	0.6	1.1	2.9	3.7	1.1	1.1	1.6	2.0	2.3	2.4	1.8	3.5	3.9	3.5
Average real interest rate on domestic debt (in percent)	...	...	...	...	...	3.5	-0.8	0.7	0.5	3.5	4.2	1.9	3.8	4.2	4.1
Real exchange rate depreciation (in percent, + indicates depreciation)	-2.1	36.5	-17.8	6.4	29.3	19.7	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	13.1	13.6	3.4	7.7	4.5	6.0	6.3	5.4	6.4	4.3	3.7	5.3	3.0	3.0	3.0
Growth of real primary spending (deflated by GDP deflator, in percent)	0.0	0.3	0.1	0.0	0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.1	0.1
Grant element of new external borrowing (in percent)	...	...	...	…	…	31.6	-0.2	-2.0	-3.8	14.6	-5.3	5.8	291.8	121.9	...

Sources: Country authorities; and staff estimates and projections.

1/ [Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net or gross debt is used.]

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.

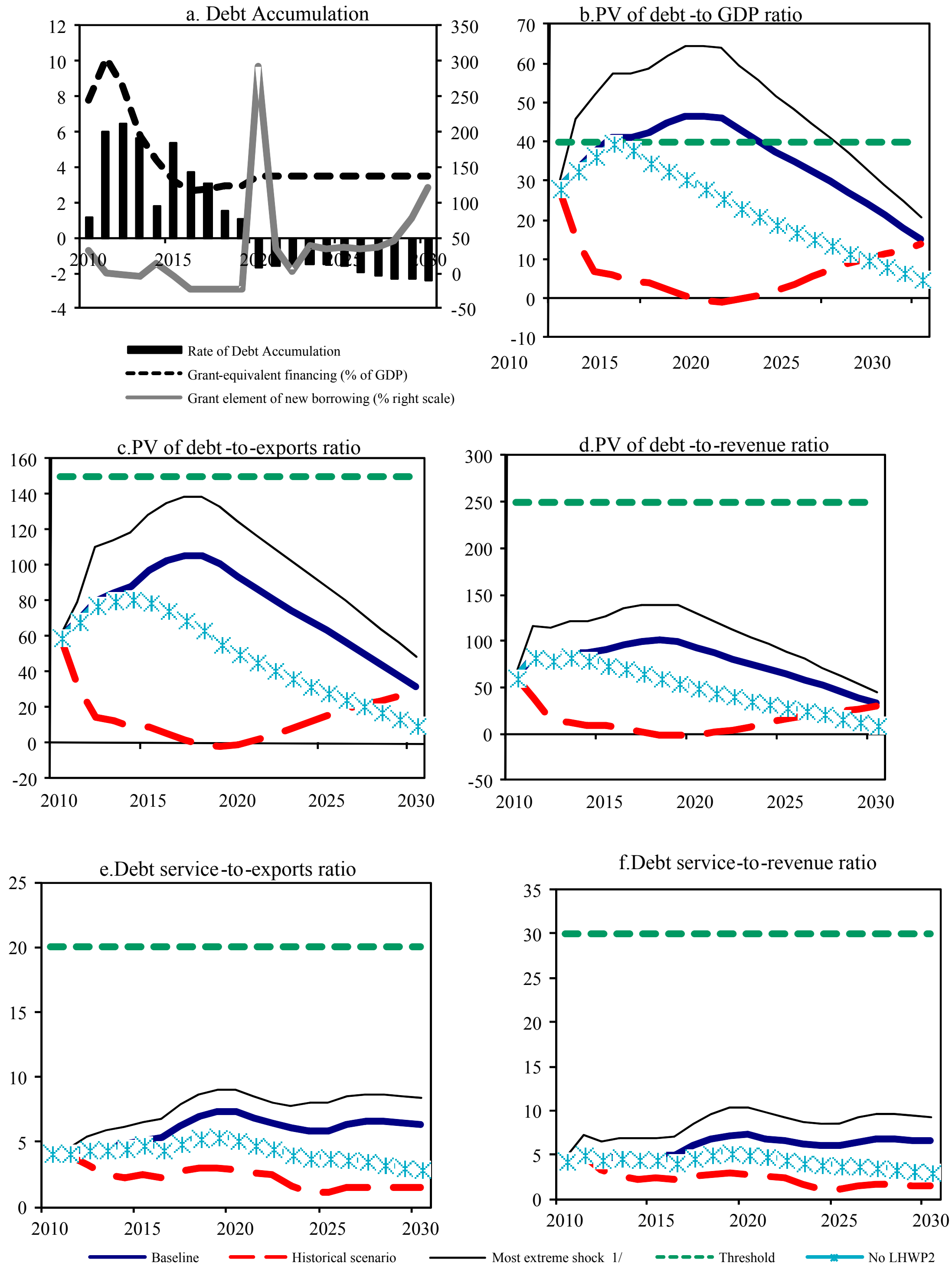
5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

Table 2b. Lesotho: Sensitivity Analysis for Key Indicators of Public Debt 2010–2030

	Projections							
	2010	2011	2012	2013	2014	2015	2020	2030
PV of Debt-to-GDP Ratio								
Baseline	33	39	44	47	47	46	50	23
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	33	18	12	10	6	8	8	-39
A2. Primary balance is unchanged from 2010	33	36	47	62	77	91	183	345
A3. Permanently lower GDP growth 1/	33	39	45	49	49	50	63	71
A4. Alternative Scenario : Permanent decline in SACU revenue	33	39	44	48	47	47	54	30
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	33	41	50	56	59	61	79	84
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	33	25	25	29	28	29	32	4
B3. Combination of B1-B2 using one half standard deviation shocks	33	22	19	25	26	29	41	32
B4. One-time 30 percent real depreciation in 2011	33	52	57	61	61	60	70	53
B5. 10 percent of GDP increase in other debt-creating flows in 2011	33	49	54	57	56	55	59	34
PV of Debt-to-Revenue Ratio 2/								
Baseline	64	79	80	89	91	93	100	47
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	64	37	22	18	12	17	15	-77
A2. Primary balance is unchanged from 2010	64	73	86	118	150	184	369	697
A3. Permanently lower GDP growth 1/	64	80	82	92	96	101	127	143
A4. Alternative Scenario : Permanent decline in SACU revenue	64	79	81	90	93	95	109	131
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	64	82	91	106	114	122	160	169
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	64	51	47	54	55	58	64	7
B3. Combination of B1-B2 using one half standard deviation shocks	64	44	35	46	51	58	82	65
B4. One-time 30 percent real depreciation in 2011	64	106	105	115	119	122	142	107
B5. 10 percent of GDP increase in other debt-creating flows in 2011	64	99	99	107	110	112	120	69
Debt Service-to-Revenue Ratio 2/								
Baseline	4	5	4	5	5	5	8	7
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	4	5	3	2	2	2	5	-4
A2. Primary balance is unchanged from 2010	4	5	4	5	6	8	17	48
A3. Permanently lower GDP growth 1/	4	5	5	5	5	6	9	12
A4. Alternative Scenario : Permanent decline in SACU revenue	4	5	4	5	5	5	7	15
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	4	5	5	6	6	6	10	15
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	4	5	3	3	4	4	6	3
B3. Combination of B1-B2 using one half standard deviation shocks	4	5	3	3	3	4	7	6
B4. One-time 30 percent real depreciation in 2011	4	6	6	7	7	8	11	14
B5. 10 percent of GDP increase in other debt-creating flows in 2011	4	5	5	6	6	6	8	9

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.

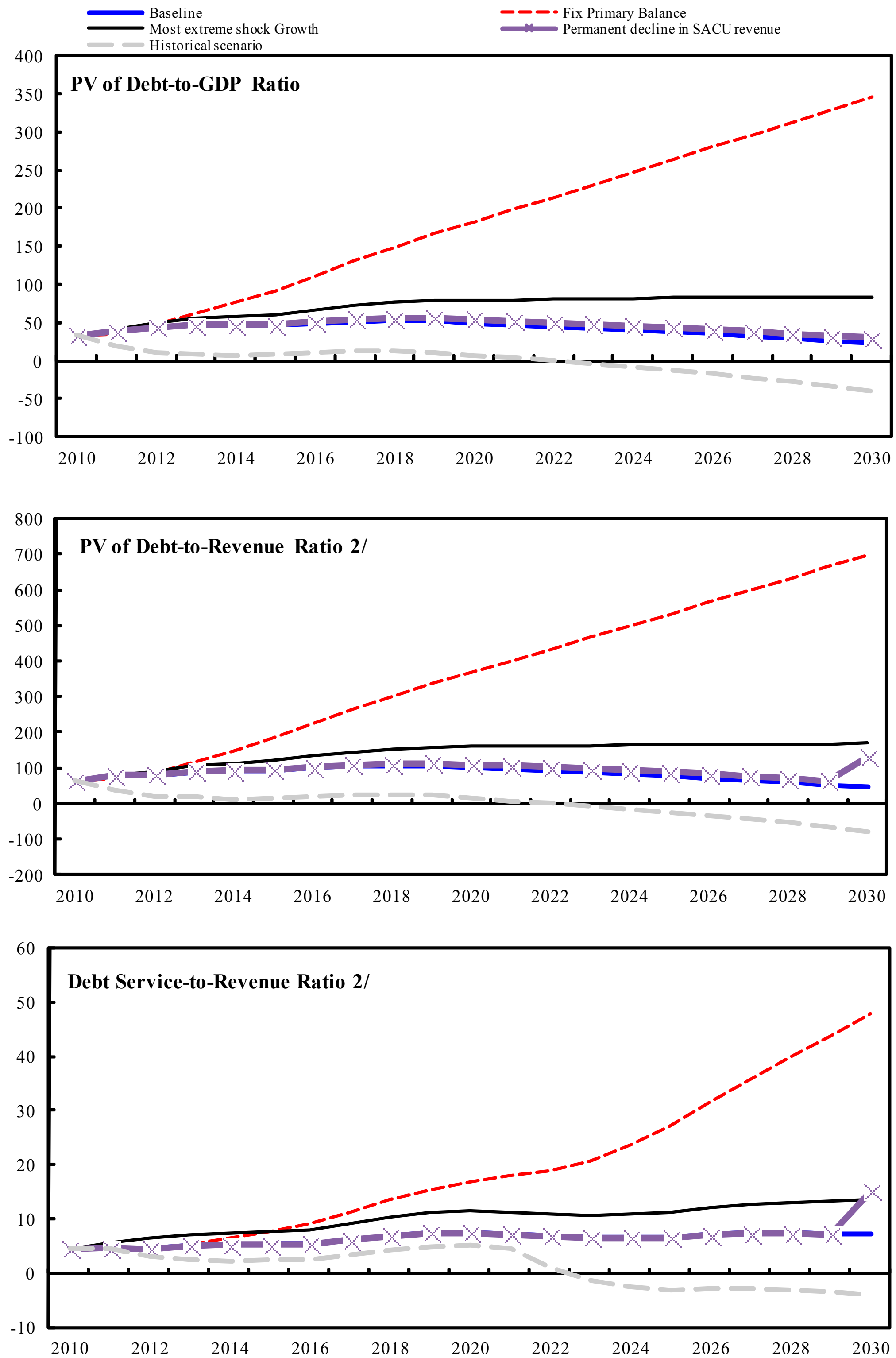
Figure 1. Lesotho: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2010-2030 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2020. 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

Figure 2. Lesotho: Indicators of Public Debt Under Alternative Scenarios, 2010-2030 1/

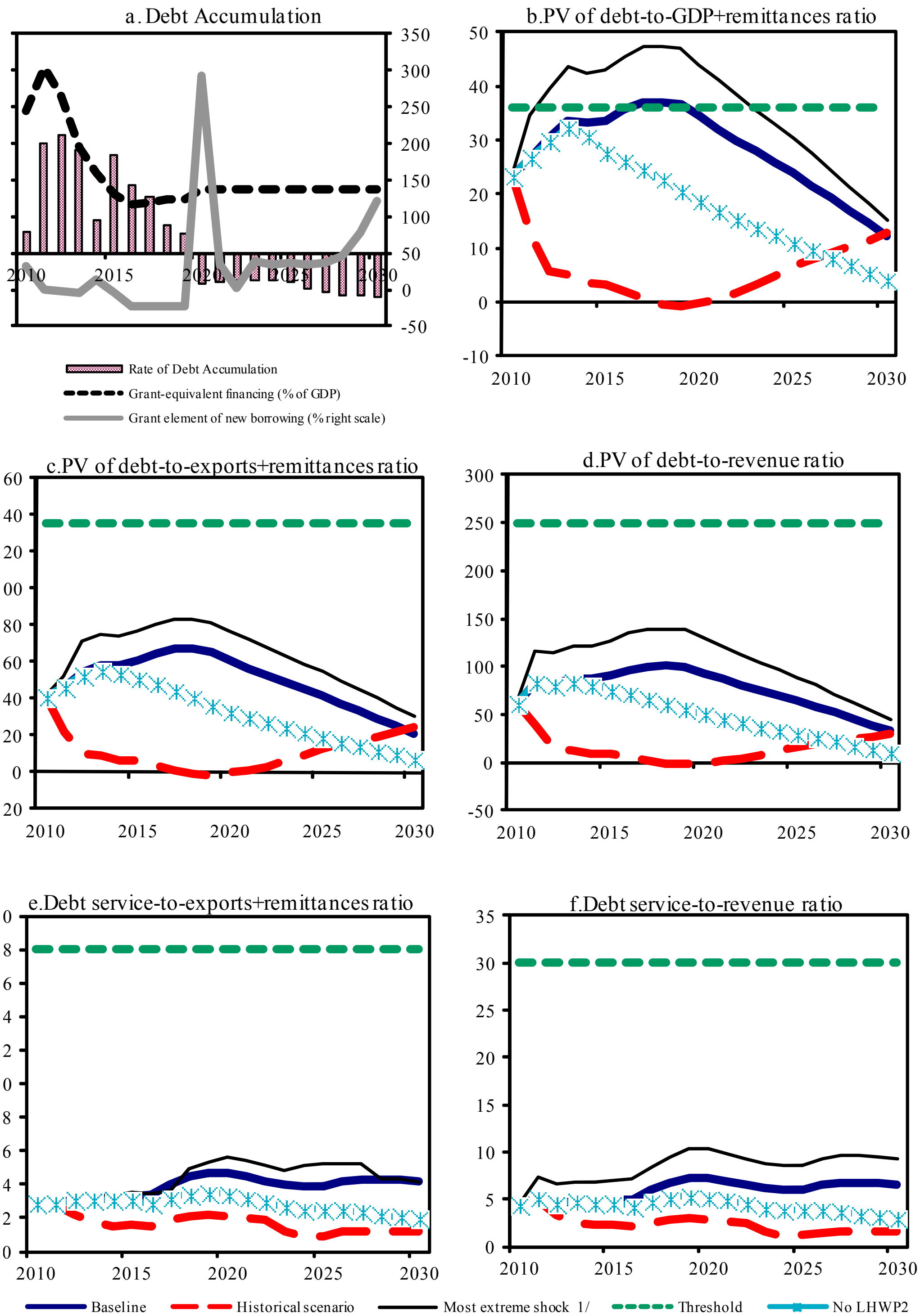


Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2020.

2/ Revenues are defined inclusive of grants.

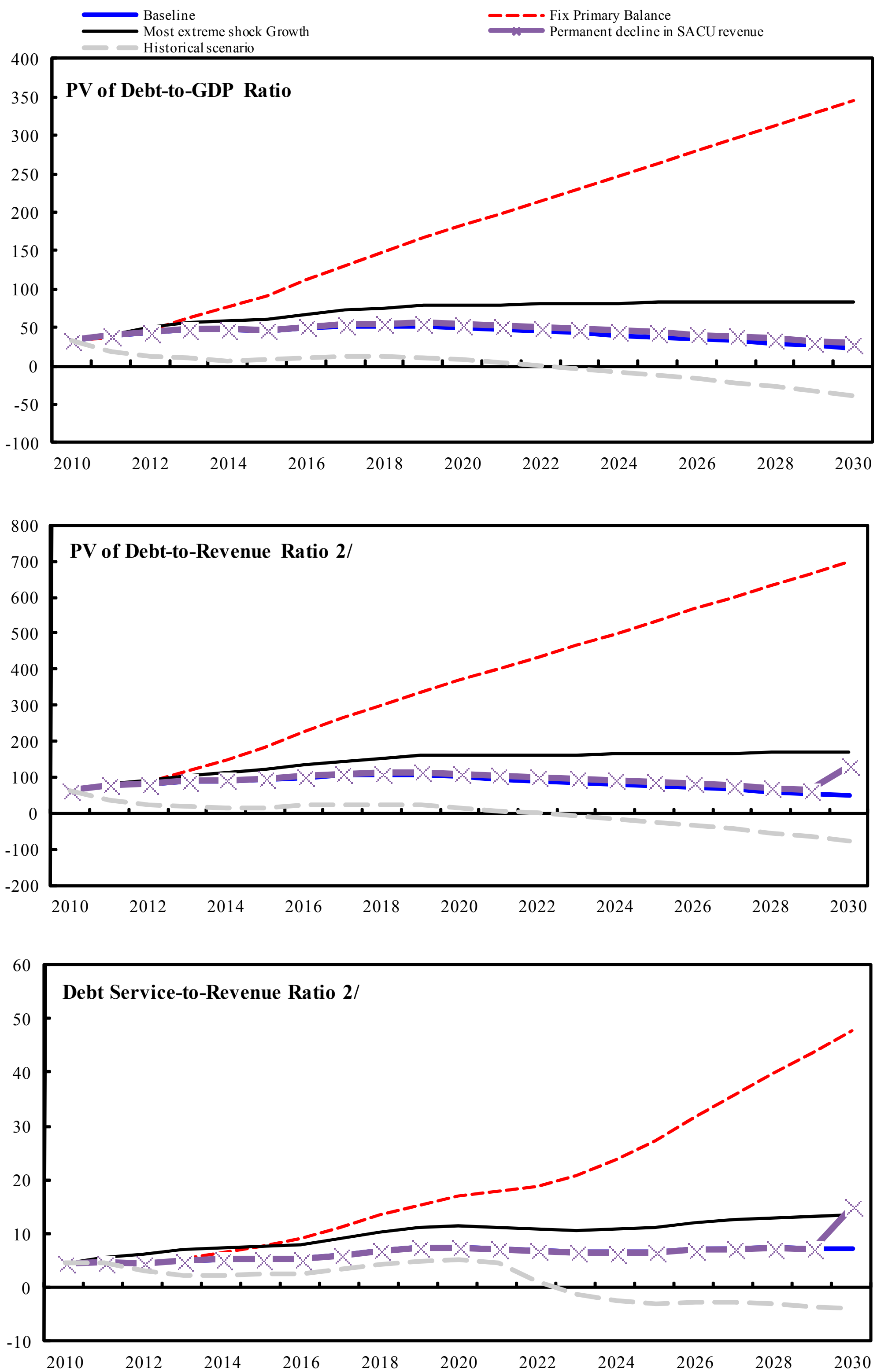
Figure 3. Lesotho: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2010-2030 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2020. 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 Terms shock and in figure f. to a One-time depreciation shock

Figure 4.Lesotho: Indicators of Public Debt Under Alternative Scenarios, 2010-2030 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2020.

2/ Revenues are defined inclusive of grants.