INTERNATIONAL DEVELOPMENT ASSOCIATION
INTERNATIONAL MONETARY FUND

KINGDOM OF LESOTHO

Joint Bank-Fund Debt Sustainability Analysis for Low-Income Countries

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January 28, 2010

This debt sustainability analysis for low-income countries (LIC DSA) is based on end-2008 data for external and public debt provided by the Lesotho authorities, and World Bank and IMF staff estimates for debt outstanding to multilateral creditors. The overall staff assessment is that Lesotho remains at moderate risk of debt distress. The risk has increased relative to last year's analysis, reflecting large fiscal and external deficits likely over the next several years as a result of the sharp fall in Southern African Customs Union (SACU) revenues, but debt ratios are projected to remain manageable over the medium-term as the fiscal position returns to balance. 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 realign spending with its sustainable level based on the long-run level of SACU revenues, and for the authorities to move forward with structural reforms to boost productivity and competitiveness in order to accelerate medium-term growth.

I. Introduction

1. **This DSA has been prepared jointly by World Bank and IMF staff.** It comprises external and domestic debt, and is based on the framework for low-income countries approved by the respective Executive Boards.[1] The framework takes into account indicative

[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).

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 has seen a significant decline since 2002 falling from 99 percent of GDP to 52.5 percent of GDP (US$738 million) at the end of 2008**. Much of the decline is attributed to the authorities' early repayment of non concessional loans and limits on new borrowing. Of the total public sector debt, US$669 million was owed to external creditors, almost entirely to multilaterals (US$612 million), mainly IDA and the African Development Fund. Public domestic debt (held by residents) amounted to US$70 million at the end of 2008; at present, domestic debt is limited to Treasury bills issued for monetary policy operations and is not used for budget financing.

Lesotho: External and Domestic Nominal Debt Outstanding at end-2008

	In Millions of USD	In Percent of GDP
Total public debt	738.1	52.5
Domestic debt	69.6	5.0
External debt	668.5	47.6
Multilateral	611.6	43.5
World Bank Group	301.1	21.4
African Development Fund	209.9	14.9
EU	30.0	2.1
IMF	29.7	2.1
Others	41.1	2.9
Bilateral	49.1	3.5
Commercial	7.8	0.6

Source: Ministry of Finance and Development Planning

3. **The large decline in SACU revenues projected for 2010/11, as well as repayments owed on excess disbursements in previous years, will have a significant impact on Lesotho's external and fiscal positions.** The resulting increase in public debt will depend on the extent to which the authorities are able to implement offsetting

[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, 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.

expenditure measures and mobilize financing from donors on concessional terms. While the level of SACU transfers is expected to increase as the South African 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 pool allocated to the BLNS countries.

II. Macroeconomic Assumptions

4. **The baseline scenario is based on the macroeconomic assumptions described below.** The key difference relative to the DSA performed for the 2008 Article IV consultation is the large fiscal and current account deficits projected from 2010/11 to 2012/13 as a result of the sharp fall in SACU revenues. In addition, this year's DSA incorporates the second phase of the Lesotho Highlands Water Project (LHWP)[3], with construction projected to begin in 2012 and be completed in 2019. During the construction phase, the project is expected to have a significant impact on real GDP growth and the current account balance (due to imports associated with the project), in addition to the debt incurred to finance the project.

- Real GDP growth is projected to slow from 4.5 percent in 2008 to 1.4 percent in 2009, reflecting a decline in demand for diamonds and textiles due to the global financial crisis, as well as a fall in the earnings of migrant workers employed in South Africa. The earnings of these workers, primarily employed in the mining sector, are significant; net labor income was estimated at 23 percent of GDP in 2009, providing significant support for foreign reserves. Output growth is expected to pick up to 3 percent in 2010-11, and accelerate further to an average annual growth rate of 6.5 percent during 2012-2015, boosted by construction on the second phase of the LHWP[4], together with the recovery in the global economy. Earnings from migrant workers are expected to rise in line with the projected recovery in South Africa, with an average annual increase of 5 percent in dollar terms during 2010-2015. Medium-term growth is projected at 4.5 percent

[3] The Lesotho Highlands Water Project involves the construction of a system of dams to supply water to South Africa, as well as a hydroelectric power station that would generate electricity for domestic consumption in Lesotho. The first phase of the project was completed in 2002; the DSA assumes that construction of the second phase would take place from 2012-2019 at a total cost of roughly $950 million. The project would be jointly financed by Lesotho and South Africa; Lesotho's share of the costs is estimated at $400 million. The DSA assumes a mix of concessional and market financing for LHWP, with an average interest rate of 6 percent and maturity of 20 years.

[4] Initial construction on LHWP2 is expected to begin in 2012, with the largest expenditures taking place during 2015-2019. As a result, the project contributes to an elevated real GDP growth rate in 2012, when preliminary work starts, and again in 2015, when the major construction phase begins.

compared with average annual growth of 3 percent during 1999-2007, reflecting efforts to advance structural reforms needed to boost productivity and competitiveness. In addition, grants provided by the Millennium Challenge Corporation (MCC) will support significant investment in the health sector, in the provision of water for industrial and domestic use and in private sector development. The projected medium-term growth rate is little changed from the medium-term growth assumption of 4.3 percent in the 2008 DSA.

- Inflation (as measured by the implicit GDP deflator) is assumed to move from an average of 9 percent over the last ten years (elevated in part by the food and energy price shocks in 2007-08) to 4.5 percent over the longer term, in line with projected consumer price inflation in South Africa.

- The fiscal deficit is expected to rise sharply due to the decline in net SACU transfers beginning in 2010/11, combined with the run-up in public spending over the past three years. An average annual fiscal deficit of 11 percent of GDP is projected for the 2010/11 – 2012/13 fiscal years, which would be financed by a combination of drawing down government deposits and mostly bilateral borrowing. Large fiscal surpluses over the past five years has resulted in the accumulation of significant fiscal savings, with foreign exchange reserves equal to $1.1 billion, or 7.4 months' imports of goods and services, at the end of 2009. In addition, the DSA assumes that the drop in SACU receipts would be offset through new borrowing from bilateral lenders and increased domestic debt issuance.[5]

- The fiscal position is projected to return to balance by 2015/16, reflecting a spending adjustment that would reduce expenditure to 50 percent of GDP from 70 percent of GDP in 2009/10, as well as some recovery in SACU revenues. SACU transfers are projected to stabilize at 20 percent of GDP over the medium-term, broadly in line with their level prior to 2004/05, as the temporary factors that contributed to the sharp increase in the common revenue pool in recent years recede[6]. Public expenditures are projected to stabilize at 50 percent of GDP after

[5] The drawdown of fiscal savings is constrained by the need to retain sufficient reserves to ensure the stability of the exchange rate peg to the rand. The DSA assumes new bilateral borrowing of $120 million during 2011-12 to offset the SACU shortfall, at an assumed interest rate of 6 percent and maturity of 10 years. The remainder of Lesotho's external debt is primarily multilateral debt on concessional terms. An interest rate of 8 percent is assumed on domestic borrowing.

[6] The level of SACU transfers to Lesotho increased sharply during the period from 2004/05 to 2009/10, reflecting sharp increases in South Africa's imports of capital and consumer durables that boosted the size of the common revenue pool distributed to the members of the customs union. In addition, the revenue sharing formula was changed in 2005 to treat customs and excise revenues as two separate components, and provided for the establishment of the development component, which enhanced the receipts of the smaller economies. As

(continued)

2015/16, resulting in a fiscal balance over the remainder of the projection period. This compares to a projected medium-term fiscal surplus of 5 percent of GDP in the 2008 DSA, reflecting a higher level of projected SACU transfers (previously assumed to remain close to 30 percent of GDP).

- Exports of goods and services are expected to contract by 10 percent in 2009 (in U.S. dollar terms) after increasing by an annual average of 19 percent over the last 10 years. Export growth is projected to strengthen to 7 percent during 2010-2014, boosted by the global economic recovery and several ongoing mining projects, before stabilizing at 5 percent over the longer term. Stronger growth rates over the past 10 years reflect the rapid growth of the textiles and mining sectors, which is not expected to continue at that pace. Import growth is assumed at an annual average of 8 percent during 2010-2015, with the expected reduction in fiscal spending offset in part by the jump in imports associated with the second phase of the LHWP, before stabilizing at 4 percent over the longer term, broadly in line with growth in real GDP.

- The current account balance (including official transfers) largely reflects the changes in the fiscal position, declining from a 10 percent of GDP surplus in 2008 to a small deficit in 2009 and then average deficits of 16 percent in 2010-12 as SACU transfers decline significantly. Imports of goods and services associated with LHWP construction would contribute to an elevated current account deficit through 2019, after which the deficit is projected to stabilize at close to 2 percent of GDP.

- Domestic debt is projected to increase from 4 percent of GDP in 2008 to 9 percent by 2029, reflecting the authorities' plans for development of the domestic debt market and demand for longer-dated domestic debt from institutional investors.

- Using the Atlas method, Lesotho's GNI per capita stood at US$1,080 in 2008 compared with the IDA cut-off of $1,135. In the baseline scenario, Lesotho starts facing "IDA-hardened" terms after 2013 and becomes an "IDA-blend" country after 2020 as a result of the growth in its GNI per capita to above the IDA threshold.

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a result, the Lesotho's SACU receipts rose from 19.4 percent of GDP in 2003/04 to 35.3 percent of GDP in 2009/10.

III. EXTERNAL DEBT SUSTAINABILITY

Baseline

5. **At end-2008, the PV of external debt stood at 33 percent of GDP (Table 1a).** Under the baseline scenario, Lesotho's PV of debt to GDP ratio is projected to fall to 26 percent in 2009, reflecting the appreciation of the loti[7], and then increase to 35 percent by 2012 as a result of debt incurred to finance the projected fiscal deficits. The PV of debt-to-GDP ratio is projected to rise further to 43 percent by 2019, above the 40 percent indicative threshold, although this is almost entirely due to borrowing related to the second phase of the LHWP. This marginal breach of the threshold lasts for only five years. The ratio is expected to decline to 21 percent by 2029 as the fiscal primary balance shifts into surplus beginning in 2014. The PV of debt relative to exports and to revenues would also rise through 2019, but remain well below the indicative thresholds. There would also be a modest increase in the ratio of debt service to exports (from 4 to 5 percent) and debt service to revenues (from 3 to 6 percent), but debt service would remain well below the thresholds due to the highly concessional nature of existing debt.[8] Lesotho's debt ratios fall considerably if transfers from migrant workers are also included in the assessment; the PV of external debt to the sum of GDP and worker's earnings would reach 29 percent by 2012 and 35 percent by 2019, remaining below the indicative thresholds. [9]

Alternative scenarios and stress tests

6. **Sensitivity tests show that Lesotho's debt burden would increase, but still fall below the indicative threshold for PV of debt to GDP by 2029 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 40 percent in 2014 and 49 percent by 2019, but falls to 28 percent by 2029. In a scenario in which the key variables are set at their average of the past 10 years, Lesotho's debt ratios actually fall relative to the baseline, reflecting the average fiscal surplus over this period relative to the significant deterioration in the fiscal position in the projection.

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[7] The 26 percent appreciation of the loti against the dollar (in nominal terms) had a significant effect on the debt-to-GDP ratio in 2009.

[8] The assumed bilateral loan to finance the shortfall in SACU revenues in 2011-12 and the borrowing associated with the second phase of the LHWP from 2012-2019 (both referred to above) are not assumed to be on concessional terms, resulting in a decline in the overall grant element of borrowing during this period.

[9] The indicative threshold for the ratio of PV of external debt to GDP adjusted to include remittances is 36 percent (compared with 40 percent if remittances are not included).

7. **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 a terms of trade shock in 2010-11, the PV of debt-to-GDP ratio would increase to 57 percent by 2019 and then ease to 28 percent in 2029. 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 58 percent by 2019, but then fall to 28 percent by 2029.

Country-specific scenario

8. **The increase in debt levels after 2014 is largely attributable to the substantial increase in borrowing that would be required to finance the second phase of the LHWP.** An alternative scenario was performed assuming that the project does not go forward as planned, with adjustments to reflect lower growth in real GDP and imports during the construction phase of the project, as well as to exclude water royalties associated with the project following completion. In this scenario (scenario A3), the PV of debt to GDP ratio would rise to 34 percent in 2012, but would then decline to 11 percent by 2029 and remain below the indicative threshold throughout the projection. Similarly, in this scenario Lesotho would continue to face increased vulnerability in the event of a large nominal depreciation or deterioration in borrowing terms, but the sensitivity to these shocks is greatly diminished (see Figures 3 and 4).

IV. Public Sector Debt Sustainability

Baseline

9. **Domestic debt remained relatively low at the end of 2008, 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 monetary purposes, 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 will look to tap 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 9 percent of GDP by 2029, reflecting a gradual expansion of the domestic debt market as a source of budget finance.

Alternative scenarios and stress tests

10. **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 from 29 percent in 2009 to 63 percent in 2019 and 78 percent by 2029, as opposed to 30 percent in the baseline scenario in 2029. 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

11. **In a customized scenario featuring a permanent decline in SACU revenues, the ratio of public sector debt to GDP also rises sharply.** The baseline scenario already incorporates the projected decline in SACU transfers to Lesotho in 2010/11, 2011/12 and 2012/13 as a result of the 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-formula that could reduce distributions to the BLNS or further reductions in the common external tariff that would also lower collections of the Common Revenue Pool. The baseline scenario assumes that Lesotho's SACU revenues return to 20 percent of GDP by 2013/14 and stabilize at this level; 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 59 percent by 2019, and remains above 50 percent through 2029.

V. Conclusion

12. **Lesotho remains at moderate risk of debt distress, although the risk has increased relative to last year's analysis.** The increase in borrowing necessary to smooth the adjustment to the sizable external shock that Lesotho will experience from the drop in net SACU revenues over the next several years will increase the ratio of PV of debt to GDP close to the indicative threshold by 2012. The ratio is projected to temporarily exceed the threshold from 2016 to 2020 as a result of borrowing to finance the LHWP, but would decline steadily as the fiscal position remains in balance over the medium-term and be well below the indicative thresholds by the end of the projection period. The risk of debt distress is magnified in the event of adverse shocks to economic growth, a large exchange rate depreciation, or a lower long-run level of SACU revenues. The risks appear manageable over the medium-term if the authorities are able to move forward with the planned adjustment of fiscal expenditures. Hence, these results underscore the critical need to realign spending with its sustainable level based on the long-run level of SACU revenues, while moving forward with structural reforms to boost productivity and competitiveness in order to accelerate medium-term growth.

13. **The significant level of transfers from migrant works received by Lesotho, like remittances in other cases, is substantial and further mitigates debt vulnerabilities.** The PV of external debt to the sum of GDP and worker's earnings would be 20 percent in 2009,

compared with a PV of debt to GDP ratio of 26 percent. In addition, the PV of external debt to GDP and worker's earnings would be 29 percent in 2012 and 35 percent in 2019, compared with ratios of 35 percent and 43 percent excluding these transfers. Although these transfers have not been formally included in the DSA calculations for Lesotho, debt indicators adjusted for these transfers would be much lower and leave Lesotho close to the indicative thresholds even in the case of adverse shocks to growth, terms of trade or the exchange rate.

Table 1a. Lesotho: External Debt Sustainability Framework, Baseline Scenario, 2006-2029 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average	Standard Deviation	Projections									
	2006	2007	2008			2009	2010	2011	2012	2013	2014	2009-2014 Average	2019	2029	2015-2029 Average
External debt (nominal) 1/	**48.9**	**51.4**	**47.5**			**36.6**	**42.8**	**45.4**	**46.9**	**47.8**	**47.5**		**47.7**	**23.5**	
o/w public and publicly guaranteed (PPG)	48.9	51.4	47.5			36.6	42.8	45.4	46.9	47.8	47.5		47.7	23.5	
Change in external debt	2.3	2.5	-3.8			-10.9	6.1	2.6	1.5	1.0	-0.3		-0.7	-2.7	
Identified net debt-creating flows	-14.5	-25.3	-16.1			-4.2	14.0	9.9	5.9	1.2	-1.1		0.8	-3.7	
Non-interest current account deficit	**-5.3**	**-18.3**	**-9.9**	**5.4**	**13.9**	**1.1**	**19.3**	**15.3**	**12.1**	**6.0**	**4.6**		**6.1**	**1.1**	3.8
Deficit in balance of goods and services	49.6	53.3	54.3			60.8	62.9	54.7	50.1	47.8	47.1		46.7	40.5	
Exports	53.6	56.3	59.1			52.3	52.9	53.7	55.0	55.2	55.5		54.0	56.5	
Imports	103.2	109.6	113.4			113.2	115.7	108.5	105.2	103.0	102.5		100.8	97.0	
Net current transfers (negative = inflow)	-27.5	-40.2	-32.2	-23.7	7.4	-32.5	-17.7	-14.2	-14.0	-17.3	-18.2		-18.1	-17.9	-18.0
o/w official	-26.2	-40.1	-32.1			-32.4	-17.6	-14.1	-13.9	-17.2	-18.1		-18.0	-17.8	
Other current account flows (negative = net inflow)	-27.5	-31.4	-32.0			-27.2	-25.9	-25.3	-24.0	-24.6	-24.2		-22.5	-21.5	
Net FDI (negative = inflow)	**-6.5**	**-6.8**	**-5.8**	**-4.9**	**1.0**	**-5.1**	**-4.7**	**-4.6**	**-4.4**	**-4.4**	**-4.4**		**-4.4**	**-4.4**	-4.4
Endogenous debt dynamics 2/	**-2.7**	**-0.3**	**-0.4**			**-0.2**	**-0.6**	**-0.8**	**-1.8**	**-0.4**	**-1.4**		**-0.9**	**-0.4**	
Contribution from nominal interest rate	0.7	4.2	0.3			0.5	0.4	0.4	0.6	0.8	0.8		1.2	0.7	
Contribution from real GDP growth	-2.8	-1.1	-2.3			-0.7	-1.0	-1.2	-2.4	-1.2	-2.2		-2.1	-1.1	
Contribution from price and exchange rate changes	-0.5	-3.5	1.6			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**16.8**	**27.8**	**12.3**			**-6.7**	**-7.9**	**-7.2**	**-4.4**	**-0.2**	**0.8**		**-1.5**	**1.0**	
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/	...	...	33.2			25.5	29.3	32.5	34.9	35.6	35.9		42.9	21.0	
In percent of exports	...	...	56.2			48.7	55.5	60.5	63.5	64.4	64.7		79.3	37.2	
PV of PPG external debt	**...**	**...**	**33.2**			**25.5**	**29.3**	**32.5**	**34.9**	**35.6**	**35.9**		**42.9**	**21.0**	
In percent of exports	**...**	**...**	**56.2**			**48.7**	**55.5**	**60.5**	**63.5**	**64.4**	**64.7**		**79.3**	**37.2**	
In percent of government revenues	**...**	**...**	**52.9**			**39.2**	**61.4**	**73.7**	**80.2**	**74.5**	**73.1**		**89.3**	**43.7**	
Debt service-to-exports ratio (in percent)	**5.6**	**10.6**	**2.7**			**4.1**	**3.9**	**3.9**	**3.7**	**4.0**	**3.6**		**5.3**	**5.2**	
PPG debt service-to-exports ratio (in percent)	**5.6**	**10.6**	**2.7**			**4.1**	**3.9**	**3.9**	**3.7**	**4.0**	**3.6**		**5.3**	**5.2**	
PPG debt service-to-revenue ratio (in percent)	**4.8**	**9.5**	**2.5**			**3.3**	**4.3**	**4.7**	**4.7**	**4.6**	**4.0**		**6.0**	**6.1**	
Total gross financing need (Millions of U.S. dollars)	-124.9	-298.1	-224.5			-30.1	290.8	228.4	189.8	76.1	47.6		119.4	-10.8	
Non-interest current account deficit that stabilizes debt ratio	-7.6	-20.7	-6.1			12.0	13.2	12.6	10.6	5.0	5.0		6.7	3.8	
Key macroeconomic assumptions															
Real GDP growth (in percent)	6.5	2.4	4.5	3.5	1.9	1.4	3.0	2.8	5.8	2.7	4.8	3.4	4.5	4.5	5.0
GDP deflator in US dollar terms (change in percent)	1.2	7.7	-3.0	5.7	17.6	-0.3	5.8	0.3	1.9	0.2	0.9	1.5	-1.4	-1.4	-1.4
Effective interest rate (percent) 5/	1.5	9.6	0.6	3.9	4.9	1.1	1.1	1.0	1.4	1.7	1.8	1.3	2.7	2.8	2.6
Growth of exports of G&S (US dollar terms, in percent)	7.9	16.0	6.3	18.7	16.7	-10.4	10.0	4.9	10.5	3.2	6.2	4.1	5.9	3.4	3.6
Growth of imports of G&S (US dollar terms, in percent)	3.6	17.2	4.8	9.8	14.2	0.9	11.4	-3.3	4.6	0.8	5.2	3.3	2.8	3.2	3.2
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	47.1	43.2	10.8	9.6	33.0	16.6	26.7	-16.1	36.8	19.6
Government revenues (excluding grants, in percent of GDP)	61.6	62.5	62.7			65.0	47.8	44.2	43.6	47.8	49.1		48.0	48.0	48.0
Aid flows (in Millions of US dollars) 7/	16.6	22.3	25.4			103.0	187.7	163.8	153.9	115.4	89.3		58.8	83.1	
o/w Grants	16.6	22.3	25.4			70.5	108.2	121.6	105.2	54.7	42.7		51.8	70.3	
o/w Concessional loans	0.0	0.0	0.0			32.4	79.5	42.2	48.7	60.7	46.6		7.0	12.9	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			5.4	8.2	7.4	6.0	3.9	2.6		1.6	2.1	1.9
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			83.3	75.9	59.1	51.9	61.7	48.0		36.1	90.2	68.3
Memorandum items:															
Nominal GDP (Millions of US dollars)	1416.7	1562.9	1583.9			1601.8	1744.4	1800.2	1941.4	1998.2	2112.8		2618.3	3549.4	
Nominal dollar GDP growth	7.8	10.3	1.3			1.1	8.9	3.2	7.8	2.9	5.7	5.0	3.1	3.1	3.5
PV of PPG external debt (in Millions of US dollars)			467.2			468.8	497.2	571.6	662.7	694.5	739.3		1096.4	728.2	
(PVt-PVt-1)/GDPt-1 (in percent)						0.1	1.8	4.3	5.1	1.6	2.2	2.5	1.6	-1.9	0.2

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - \rho(1+g)]/(1+g+\rho+g\rho)$ 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, 2009-2029
(In percent)

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029
PV of debt-to GDP ratio								
Baseline	25	29	33	35	36	36	43	21
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	25	15	7	2	-1	-2	-20	-10
A2. New public sector loans on less favorable terms in 2009-2029 2/	25	30	33	37	39	40	49	28
A3. Alternative Scenario : No LHWP2	25	29	32	34	34	34	30	11
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	25	29	33	35	36	36	43	21
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	25	32	39	41	42	42	48	23
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	25	34	44	47	48	48	57	28
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	25	30	33	35	36	36	42	20
B5. Combination of B1-B4 using one-half standard deviation shocks	25	31	31	34	35	35	43	21
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	25	40	44	48	49	49	58	28
PV of debt-to-exports ratio								
Baseline	49	55	61	63	64	65	79	37
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	49	28	12	3	-2	-4	-37	-18
A2. New public sector loans on less favorable terms in 2009-2029 2/	49	56	61	67	71	72	90	50
A3. Alternative Scenario : No LHWP2	49	54	59	61	61	59	50	17
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	49	54	59	62	63	63	77	36
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	49	65	81	83	84	84	99	45
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	49	54	59	62	63	63	77	36
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	49	58	61	64	64	65	78	36
B5. Combination of B1-B4 using one-half standard deviation shocks	49	54	48	51	52	53	66	31
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	49	54	59	62	63	63	77	36
PV of debt-to-revenue ratio								
Baseline	39	61	74	80	75	73	89	44
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	39	31	15	4	-2	-4	-42	-21
A2. New public sector loans on less favorable terms in 2009-2029 2/	39	62	74	84	82	81	102	59
A3. Alternative Scenario : No LHWP2	39	60	72	78	71	69	61	22
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	39	61	74	80	75	73	89	43
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	39	66	89	95	88	86	101	47
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	39	72	99	107	100	98	119	58
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	39	64	74	80	75	73	88	43
B5. Combination of B1-B4 using one-half standard deviation shocks	39	65	70	78	73	71	89	44
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	39	83	100	109	102	100	121	59

Table 1b.Lesotho: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2009-2029 (continued)
(In percent)

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029
Debt service-to-exports ratio								
Baseline	4	4	4	4	4	4	5	5
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	4	4	3	2	2	2	0	-2
A2. New public sector loans on less favorable terms in 2009-2029 2/	4	4	4	4	4	4	6	7
A3. Alternative Scenario : No LHWP2	4	4	4	4	4	4	5	3
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	4	4	4	4	4	4	5	5
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	4	4	4	5	5	4	7	7
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	4	4	4	4	4	4	5	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	4	4	4	4	4	4	6	5
B5. Combination of B1-B4 using one-half standard deviation shocks	4	4	4	3	4	3	5	4
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	4	4	4	4	4	4	5	5
Debt service-to-revenue ratio								
Baseline	3	4	5	5	5	4	6	6
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	3	4	4	3	2	2	0	-2
A2. New public sector loans on less favorable terms in 2009-2029 2/	3	4	5	5	5	5	7	8
A3. Alternative Scenario : No LHWP2	3	4	5	5	5	4	6	4
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	3	4	5	5	5	4	6	6
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	3	4	5	5	5	4	7	7
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	3	5	6	6	6	6	8	8
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	3	4	5	5	5	4	6	6
B5. Combination of B1-B4 using one-half standard deviation shocks	3	5	5	5	5	4	7	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	3	6	7	7	6	6	8	9
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	19	19	19	19	19	19	19	19

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. The historical current account position has been adjusted to remove transitory factors related to construction on the first phase of the LHWP.
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, 2006-2029
(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2006	2007	2008	Average	Standard Deviation	2009	2010	2011	2012	2013	2014	2009-14 Average	2019	2029	2015-29 Average
Public sector debt 1/	56.2	57.2	52.5			40.6	47.3	50.8	53.6	54.6	53.6		55.1	32.4	
o/w foreign-currency denominated	48.9	51.4	47.5			36.6	42.8	45.4	46.9	47.8	47.5		47.7	23.5	
Change in public sector debt	1.8	1.0	-4.7			-11.9	6.8	3.5	2.8	1.0	-1.0		-0.3	-2.7	
Identified debt-creating flows	-16.5	-20.6	1.1			-11.7	15.7	9.5	3.7	1.2	-2.6		-1.7	-1.2	
Primary deficit	-14.3	-16.4	-6.1	-2.4	9.5	-1.1	12.2	10.7	6.7	1.7	-0.7	4.9	-1.4	-1.1	-1.3
Revenue and grants	62.8	63.9	64.3			69.4	54.0	50.9	49.0	50.5	51.1		50.0	50.0	
of which: grants	1.2	1.4	1.6			4.4	6.2	6.8	5.4	2.7	2.0		2.0	2.0	
Primary (noninterest) expenditure	48.5	47.5	58.3			68.3	66.2	61.6	55.7	52.2	50.4		48.6	48.9	
Automatic debt dynamics	-2.2	-4.2	7.1			-10.6	3.5	-1.2	-3.0	-0.5	-1.9		-0.2	-0.1	
Contribution from interest rate/growth differential	-6.3	-3.2	-8.7			-1.3	-3.4	-3.0	-4.4	-2.5	-3.6		-3.0	-1.6	
of which: contribution from average real interest rate	-3.0	-1.9	-6.3			-0.6	-2.2	-1.7	-1.6	-1.1	-1.1		-0.6	-0.1	
of which: contribution from real GDP growth	-3.3	-1.3	-2.4			-0.7	-1.2	-1.3	-2.8	-1.4	-2.5		-2.4	-1.5	
Contribution from real exchange rate depreciation	4.2	-1.0	15.9			-9.3	6.9	1.9	1.4	1.9	1.7		...	...	
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	18.3	21.7	-5.8			-0.2	-8.9	-6.1	-0.9	-0.2	1.6		1.4	-1.6	
Other Sustainability Indicators															
PV of public sector debt	7.3	5.9	38.2			29.4	33.9	37.9	41.7	42.3	42.0		50.2	29.9	
o/w foreign-currency denominated	0.0	0.0	33.2			25.5	29.3	32.5	34.9	35.6	35.9		42.9	21.0	
o/w external	...	...	33.2			25.5	29.3	32.5	34.9	35.6	35.9		42.9	21.0	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	-11.3	-10.4	-4.5			1.4	14.5	13.1	9.1	4.4	1.8		1.9	2.5	
PV of public sector debt-to-revenue and grants ratio (in percent)	11.6	9.2	59.3			42.4	62.8	74.5	85.1	83.8	82.2		100.5	59.8	
PV of public sector debt-to-revenue ratio (in percent)	11.8	9.4	60.8			45.3	70.9	85.9	95.7	88.6	85.6		104.6	62.3	
o/w external 3/	...	...	52.9			39.2	61.4	73.7	80.2	74.5	73.1		89.3	43.7	
Debt service-to-revenue and grants ratio (in percent) 4/	4.7	9.3	2.5			3.6	4.3	4.7	5.0	5.3	4.8		6.8	7.2	
Debt service-to-revenue ratio (in percent) 4/	4.8	9.5	2.5			3.9	4.9	5.4	5.6	5.6	5.0		7.1	7.5	
Primary deficit that stabilizes the debt-to-GDP ratio	-16.1	-17.4	-1.3			10.8	5.4	7.2	3.9	0.8	0.3		-1.2	1.6	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	6.5	2.4	4.5	3.5	1.9	1.4	3.0	2.8	5.8	2.7	4.8	3.4	4.5	4.5	5.0
Average nominal interest rate on forex debt (in percent)	1.5	9.6	0.6	3.9	4.9	1.1	1.1	1.0	1.4	1.7	1.8	1.3	2.7	2.8	2.6
Average real interest rate on domestic debt (in percent)	...	...	...	...	...	5.6	1.1	1.7	1.0	2.9	2.2	2.4	4.4	4.4	4.4
Real exchange rate depreciation (in percent, + indicates depreciation)	10.1	-2.1	36.5	6.3	30.5	-20.1	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	7.7	12.1	13.8	8.1	4.3	2.3	6.8	6.2	6.9	5.0	5.7	5.5	3.5	3.5	3.4
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	0.0	0.3	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	47.1	43.2	10.8	9.6	33.0	16.6	26.7	-16.1	36.8	19.6

Sources: Country authorities; and staff estimates and projections.

1/ Covers gross debt of the general government.

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.

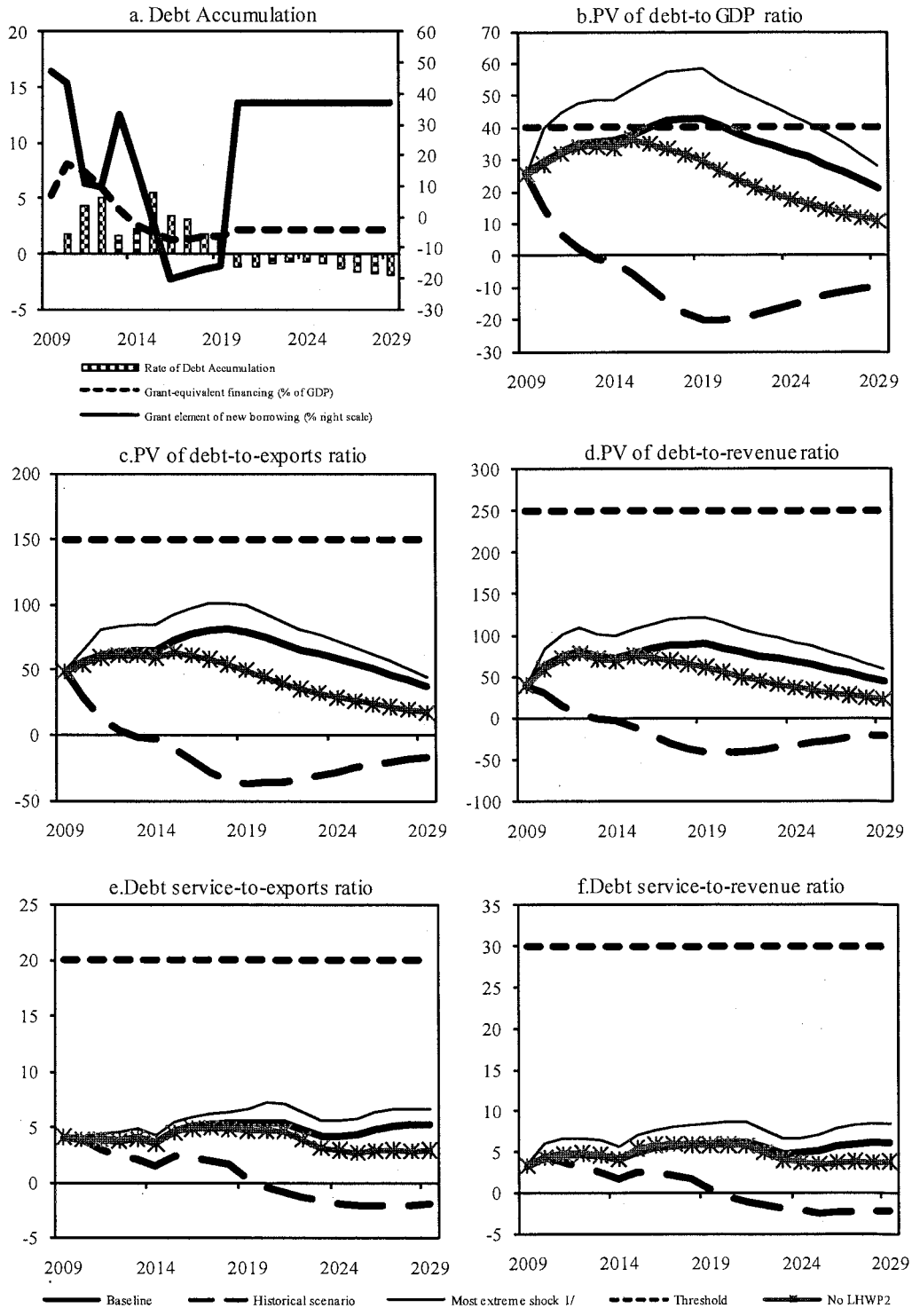
5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

Table 2b. Lesotho: Sensitivity Analysis for Key Indicators of Public Debt 2009-2029

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029
PV of Debt-to-GDP Ratio								
Baseline	29	34	38	42	42	42	50	30
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	29	19	10	6	2	0	5	-35
A2. Primary balance is unchanged from 2009	29	21	13	9	7	6	16	-6
A3. Permanently lower GDP growth 1/	29	34	39	43	45	46	63	78
A4. Alternative Scenario : Permanent decline in SACU revenues	29	34	38	42	44	45	59	52
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	29	35	41	46	48	48	63	57
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	29	29	29	33	34	34	42	21
B3. Combination of B1-B2 using one half standard deviation shocks	29	24	20	24	25	25	35	16
B4. One-time 30 percent real depreciation in 2010	29	49	53	56	57	57	72	63
B5. 10 percent of GDP increase in other debt-creating flows in 2010	29	44	48	52	52	52	60	41
PV of Debt-to-Revenue Ratio 2/								
Baseline	42	63	75	85	84	82	100	60
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	42	36	20	12	3	0	9	-70
A2. Primary balance is unchanged from 2009	42	38	25	19	13	13	31	-12
A3. Permanently lower GDP growth 1/	42	63	76	88	89	89	127	156
A4. Alternative Scenario : Permanent decline in SACU revenues	42	63	75	85	96	97	132	116
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	42	65	80	93	94	95	126	113
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	42	53	57	68	67	66	84	41
B3. Combination of B1-B2 using one half standard deviation shocks	42	45	39	50	50	49	70	33
B4. One-time 30 percent real depreciation in 2010	42	91	104	115	113	111	144	126
B5. 10 percent of GDP increase in other debt-creating flows in 2010	42	81	94	105	104	102	120	82
Debt Service-to-Revenue Ratio 2/								
Baseline	4	4	5	5	5	5	7	7
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	4	4	3	3	2	2	4	-5
A2. Primary balance is unchanged from 2009	4	4	4	3	3	2	4	-1
A3. Permanently lower GDP growth 1/	4	4	5	5	6	5	8	12
A4. Alternative Scenario : Permanent decline in SACU revenues	4	4	5	5	6	5	8	10
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	4	4	5	5	6	5	8	11
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	4	4	4	4	5	4	6	5
B3. Combination of B1-B2 using one half standard deviation shocks	4	4	4	3	4	4	6	4
B4. One-time 30 percent real depreciation in 2010	4	5	7	7	8	7	11	14
B5. 10 percent of GDP increase in other debt-creating flows in 2010	4	4	6	6	6	6	8	10

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.

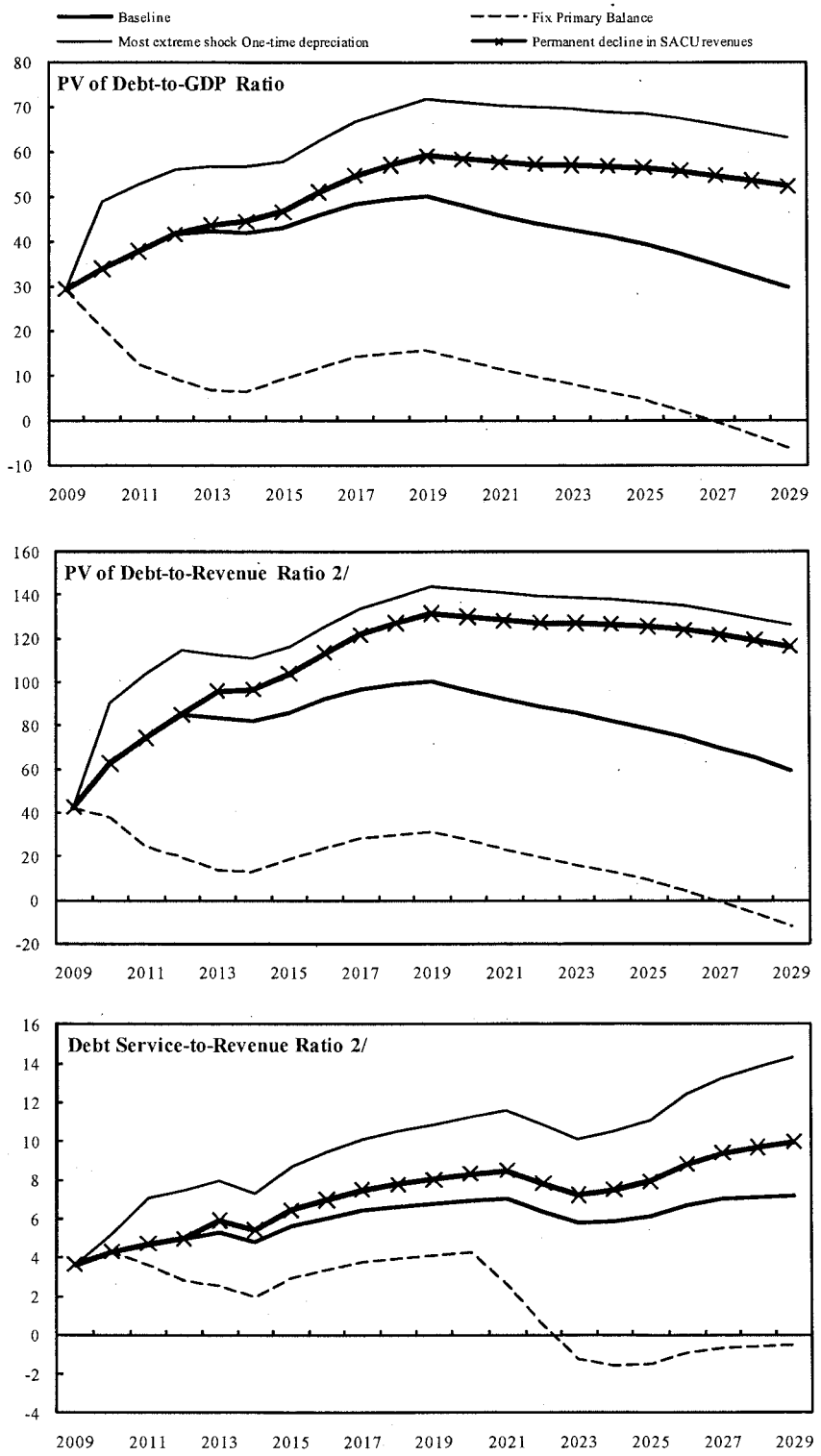
Figure 1. Lesotho: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2009-2029 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2019. 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, 2009-2029 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2019.

2/ Revenues are defined inclusive of grants.