INTERNATIONAL MONETARY FUND AND
INTERNATIONAL DEVELOPMENT ASSOCIATION

KINGDOM OF LESOTHO

Joint World Bank/IMF Debt Sustainability Analysis

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

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Lesotho remains at moderate risk of debt distress. The remittance modified indicators remains below indicative targets under the baseline. Debt ratios are projected to remain manageable over the medium-term as Southern African Customs Union (SACU) revenues recover and the fiscal position improves.[1] *As a small open economy, Lesotho remains vulnerable to adverse global or regional shocks affecting the exchange rate or real GDP growth as well as export growth and nondebt creating flows. The risks appear manageable over the medium-term if the authorities are able to move forward with the planned fiscal adjustment in coming years. The results of this analysis underscore the critical need to realign spending with its sustainable level based on the expected long-run level of SACU revenues, while moving 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 IMF and World Bank staff.** It comprises external and domestic debt, and is based on the framework for low-income countries approved by the respective Executive Boards.[2] The framework takes into account indicative thresholds for debt burden indicators determined by the quality of the country's policies and institutions,[3] and comprises baseline and alternative scenarios. Given the importance of

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[1] The analysis has been carried out on fiscal rather than calendar year basis. The fiscal year (FY) starts on April 1st. The analysis does not include state owned enterprise debt.

[2] See "Applying the Debt Sustainability Framework for Low-Income Countries Post Debt Relief," (IDA/SecM2006-0564 and http://www.imf.org/external/np/pp/eng/2006/110606.pdf and "Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework for Low-Income Countries" http://www.imf.org/external/np/pp/eng/2010/012210.pdf.

[3] 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 3.4. 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.

remittances[4] in enhancing Lesotho's capacity to repay debt, the DSA also uses the remittance-modified debt indicators to assess the risk of debt distress.[5]

2. **Lesotho's public sector debt declined from 50.6 percent of GDP in 2008/09 to 35.2 percent at end-2010/11, driven mainly by significant appreciation of the Loti/Dollar exchange rate for 2009 and 2010**. Of the total public sector debt, US$730 million was owed to external creditors, almost entirely to multilaterals (US$655 million), mainly IDA and the African Development Fund. Public domestic debt (held by residents) amounted to US$116 million at the end of 2010/11. At present, domestic debt is composed of Treasury Bills and Treasury Bonds.

Lesotho: Public debt outstanding at end-2010/11

	In millions of Maloti	In millions of USD	In percent of GDP
Total public debt	5,744	846	35.2
Domestic debt	786	116	4.8
External debt	4,958	730	30.4
Multilateral	4,446	655	27.3
IDA	2,273	335	13.9
African Development Fund	1,422	209	8.7
IMF	174	26	1.1
Others	577	85	3.5
Export credit	228	34	1.4
Bilateral	216	32	1.3
Commercial	68	10	0.4

Source: Ministry of Finance and Development Planning

3. **The large decline in SACU revenues in 2010/11 (equivalent to about 17 percent of GDP) had a significant impact on Lesotho's external and fiscal positions.** 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 (relative to GDP) 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.

4 The definition of remittances has been revised based on a more detailed BOP framework compared to the one that was used for the previous DSA in May 2010. The revision resulted in lower values both for past years and the projections.

5 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," http://www.imf.org/external/np/pp/eng/2010/012210.pdf. The last DSA prepared in May 2010 also used remittance-modified debt indicators.

4. **The impact of the decline in SACU revenues on gross debt has been mitigated by fiscal adjustment and the withdrawal of government deposits at the Central Bank of Lesotho (CBL).** Adjustment policies are being implemented under an ECF arrangement as a means of dealing with the decline in SACU revenues (see staff report of the 2nd review of the ECF arrangement). Having run a fiscal surplus until 2008/09, the government accumulated deposits in the magnitude of 4.5 billion Maloti at the CBL by 2008/09. The government deposits have since been partly withdrawn, reaching 3.4 billion Maloti by September 2011. The government is expected to begin accumulating deposits again by the second quarter of 2012 on the basis of the implementation of the planned fiscal adjustment.

II. MACROECONOMIC ASSUMPTIONS

5. The baseline scenario below is based on the following macroeconomic projections and assumptions. Compared with the May 2010 DSA, this DSA assumes weaker recovery after the global crisis and higher inflation pressures due to rising international commodity prices. Moreover, the DSA takes into account the strong appreciation of the Loti during the second half of 2010 which lowered the value of foreign denominated debt.

- Output growth reached 3.6 percent in 2009/10, 5.7 percent in 2010/11, and is projected to reach 4.2 percent in 2011/12. Between 2011/12 and 2016/17, growth is expected to average about 4.5 percent of GDP, before increasing to 5 percent between 2017/18 to 2031/32, boosted by the construction of the Metolong dam and the impact of the Lesotho Highlands Water Project, Phase II (LHWP2). The prospect for medium-term growth is favorable, given prospective mining sector investment and assuming that the construction of the Metolong Dam and LHWP2 will allow Lesotho to become an important exporter of water and electricity in the region and put the country in an improved position for attracting FDI.

- Inflation (as measured by the implicit GDP deflator) is assumed to move from an average of 7.4 percent over the last ten years (elevated in part by the food and energy price shocks in 2007–08) to 6.4 percent between 2011/12 and 2016/17, in line with projected consumer price inflation in South Africa. In the longer term, inflation in both Lesotho and South Africa is projected to average 5 percent.

- Fiscal performance in 2010/11 was stronger than envisaged under the original program, reflecting strong revenue performance, boosted by windfall revenues[6] and a large dividend payment by the CBL as well as containment of expenditure. SACU payments are expected to recover to 29 percent of GDP in 2012/13, before

[6] Notwithstanding the large decline in annual SACU payments equivalent to 19.5 percent of GDP in 2011/12, Lesotho received M466.6 million in SACU revenue after tribunal settlement at the Hague of a dispute between South Africa and BLNS over costs incurred in 2006/07–2007/08.

stabilizing around 20 percent of GDP in the medium term. The fiscal deficit reached 5 percent of GDP in 2010/11 and is projected at 10.5 percent of GDP for 2011/12. The deficit is expected to diminish gradually with the government achieving a surplus of 4.3 percent in 2016/17. In the longer term, staff expects zero net domestic borrowing (constant roll-over of existing debt, as the government envisages a fiscal balance in the medium to long-term) and net external borrowing in the magnitude of 1 percent of GDP per year (excluding borrowing for LHWP2 amounting to about 5 percent of GDP between 2017/18 and 2019/20).[7]

- The external current account position deteriorated to an estimated deficit of 14.8 percent of GDP in 2010/11, due to the sharp drop in SACU revenues and a widening of the trade balance deficit. The deficit is expected to increase to 16.6 percent in 2011/12 and then narrow over the medium term, supported by strong export performance in the mining sector and slow import growth as a result of fiscal adjustment. The current account is expected to be about balanced by 2016/17 and to be close to balance in the longer term. Reserve coverage is projected to stabilize at about 6 months of imports of goods and services in the long run.

III. EXTERNAL DEBT SUSTAINABILITY

Baseline

6. **Lesotho's PV of external debt stood at 32.2 percent of GDP at end-2010/11 and is projected to rise to 39 percent by 2020/21 (Table 1a).** This increase is driven predominantly by nonconcessional borrowing for the Metolong dam and LHWP2. The PV of external debt is thus projected to remain below the 40 percent indicative threshold, and to decline thereafter to 25.9 percent in 2031/32. The significant decline in the PV of external debt after 2021/22 is driven partly by the large swing in the grant element of external debt after the amortization of project loans for LHWP2 and Metolong, both of which are assumed to be on commercial terms.

7. **The PV of external debt relative to exports and to revenues would also rise through 2020/21, but remain well below the respective indicative thresholds of 150 and 250 percent.** The ratio of debt service to exports is expected to remain stable around 3-4 percent of GDP between 2010/11 and 2031/32; the ratio of debt service to revenues

[7] The construction of both the Metolong Dam and LHWP2 are expected to result in higher tax and export revenues.

increases from 3.6 to 5.7 percent of GDP in 2031/32. Both ratios would remain well below the thresholds due to the highly concessional nature of existing debt.[8]

Alternative scenarios and stress tests

8. **Sensitivity tests show that Lesotho's debt burden would increase in the event of less favorable public sector borrowing terms (Table 1b).** 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 43 percent in 2021/22 and falls to 35 percent by 2031/32. The stress tests result in a large and sustained breach of the debt-to-GDP threshold. 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. However, given the structural break, the historical scenario could be considered less relevant for the analysis.

9. **Bound tests reveal that Lesotho would face most distress in the event of a nominal exchange rate depreciation or if net nondebt creating flows turned out lower than the historical average**. In a scenario with net nondebt creating flows[9] one standard deviation lower than the historical average, the PV of debt-to-GDP ratio would increase to 56 percent by 2021/22 and then ease to 31 percent in 2031/32. 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 51 percent by 2021/22, but then fall to 35 percent by 2031/32. The indicative threshold of 40 percent would also temporarily be breached in case that the US dollar GDP deflator or export value growth turned out lower than the historical average. The same holds for a combined shock including lower GDP growth and lower nondebt creating flows compared to the historical average.

IV. Public Sector Debt Sustainability

Baseline

10. **Domestic debt remained relatively low at the end of 2010/11 (4.8 percent of GDP), leaving public debt indicators very closely aligned to those of public external debt (Table 2a).** Domestic debt currently comprises Treasury bonds (since 2010/11) and Treasury bills. Domestic debt is projected to fall to 4.2 percent of GDP by 2016/17, and then to gradually fall to 1 percent of GDP in 2031/32. This fall reflects the assumption of zero net domestic borrowing after 2016/17.

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[8] Borrowing associated with LHWP2 is not assumed to be on concessional terms, resulting in a decline in the overall grant element of borrowing between 2013 and 2019.

[9] Nondebt creating flows include official and private transfers as well as FDI.

Alternative scenarios and stress tests

11. **In the standard sensitivity tests, public sector debt ratios are most sensitive to an unchanged primary balance from 2011/12 (Table 2b and Figure 2b)**. This scenario assumes an unchanged primary balance from 2011/12 onwards, the year in which the country is projected to incur a fiscal deficit of 10.5 percent of GDP and a current account deficit of 16.6 percent of GDP. The scenario results in the PV of debt to GDP rising to 127 percent in 2021/22 and 164 percent in 2031/32. Lower long-run real GDP growth results in the PV of debt to GDP ratio rising to 46 percent in 2021/22 and 47 percent by 2031/32, compared with 27 percent in the baseline scenario in 2031/32. The latter 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.

V. CONCLUSION

12. **Lesotho remains at moderate risk of debt distress.** The PV of public debt as a ratio to GDP is projected to remain just below the indicative threshold of 40 percent in the baseline scenario. The ratio is projected to decline thereafter as the fiscal remains stable at a small deficit after 2016/17. The ratio also lies below the indicative threshold by the end of the projection period in 2031/32. However, the risk of debt distress is magnified as stress tests result in a protracted breach of indicative thresholds. It increases significantly in the event of adverse shocks to economic growth, significant exchange rate depreciation, or a fiscal balance significantly worse than expected. The risks appear manageable over the medium-term if the authorities are able to move forward with the planned fiscal adjustment in coming years. The results of this analysis underscore the critical need to realign spending with its sustainable level based on the expected 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 authorities broadly agreed with the assessment of moderate risk of debt distress.** The authorities appreciated that the PV of external debt ratio comes close to breaching the indicative threshold temporarily in 2020/21, partly due to the construction of the Metolong dam and the impact of the LHWP2. They agreed that the risk of debt distress increases significantly in the event of adverse shocks as well as with the need to realign spending with its sustainable level based on the expected long-run level of SACU revenues, while moving forward with structural reforms to boost productivity and competitiveness in order to accelerate medium-term growth.

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

	Actual			Historical Average 6/	Standard Deviation 6/	Projections									
	2008	2009	2010			2011	2012	2013	2014	2015	2016	2011-2016 Average	2021	2031	2017-2031 Average
External debt (nominal) 1/	**45.7**	**34.7**	**30.4**			**33.7**	**35.9**	**39.1**	**36.5**	**34.9**	**35.0**		**42.0**	**28.8**	
o/w public and publicly guaranteed (PPG)	45.7	34.7	30.4			33.7	35.9	39.1	36.5	34.9	35.0		42.0	28.8	
Change in external debt	45.7	-11.0	-4.3			3.3	2.2	3.2	-2.6	-1.6	0.1		-1.9	-1.0	
Identified net debt-creating flows	...	-11.2	3.9			7.2	-3.0	-5.1	-7.6	-8.9	-7.6		-5.8	-7.2	
Non-interest current account deficit	**-11.5**	**2.7**	**14.5**	**-4.3**	**8.5**	**16.4**	**11.0**	**14.8**	**5.2**	**-2.2**	**-2.0**		**0.7**	**-0.9**	-0.2
Deficit in balance of goods and services	64.4	72.0	68.7			64.3	67.7	65.7	45.3	30.5	28.0		27.2	22.0	
Exports	54.8	42.8	43.4			46.4	48.3	49.0	54.5	59.4	59.6		65.5	68.7	
Imports	119.2	114.7	112.1			110.7	116.0	114.7	99.7	90.0	87.7		92.7	90.6	
Net current transfers (negative = inflow)	-44.8	-41.9	-29.6	-39.1	6.0	-26.7	-40.5	-34.9	-29.9	-28.5	-26.9		-27.0	-26.9	-27.0
o/w official	-37.2	-34.3	-22.1			-19.6	-34.0	-28.5	-23.9	-22.8	-21.2		-21.3	-21.3	
Other current account flows (negative = net inflow)	-31.1	-27.3	-24.6			-21.2	-16.1	-15.9	-10.2	-4.2	-3.1		0.6	4.0	
Net FDI (negative = inflow)	**-6.7**	**-5.7**	**-5.3**	**-5.2**	**0.9**	**-8.2**	**-12.5**	**-19.8**	**-11.3**	**-5.3**	**-5.3**		**-5.3**	**-5.3**	-5.3
Endogenous debt dynamics 2/	**...**	**-8.3**	**-5.3**			**-1.0**	**-1.4**	**-0.2**	**-1.5**	**-1.4**	**-0.3**		**-1.3**	**-0.9**	
Contribution from nominal interest rate	...	0.5	0.3			0.2	0.2	0.6	0.6	0.7	0.7		0.8	0.5	
Contribution from real GDP growth	0.0	-1.3	-1.7			-1.2	-1.6	-0.8	-2.1	-2.1	-1.0		-2.1	-1.4	
Contribution from price and exchange rate changes	0.0	-7.4	-3.9			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**...**	**0.3**	**-8.2**			**-4.0**	**5.2**	**8.4**	**5.0**	**7.3**	**7.7**		**3.9**	**6.2**	
o/w exceptional financing	...	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/	...	...	32.2			34.7	36.0	35.6	32.6	29.6	29.0		37.3	25.9	
In percent of exports	...	...	74.1			74.8	74.5	72.7	59.9	49.9	48.7		57.0	37.6	
PV of PPG external debt	**...**	**...**	**32.2**			**34.7**	**36.0**	**35.6**	**32.6**	**29.6**	**29.0**		**37.3**	**25.9**	
In percent of exports	**...**	**...**	**74.1**			**74.8**	**74.5**	**72.7**	**59.9**	**49.9**	**48.7**		**57.0**	**37.6**	
In percent of government revenues	**...**	**...**	**71.3**			**80.5**	**63.6**	**66.9**	**66.5**	**61.1**	**60.6**		**77.9**	**54.0**	
Debt service-to-exports ratio (in percent)	**3.8**	**5.3**	**3.8**			**2.5**	**2.7**	**3.7**	**3.1**	**2.5**	**2.5**		**3.4**	**4.0**	
PPG debt service-to-exports ratio (in percent)	**3.8**	**5.3**	**3.8**			**2.5**	**2.7**	**3.7**	**3.1**	**2.5**	**2.5**		**3.4**	**4.0**	
PPG debt service-to-revenue ratio (in percent)	**3.3**	**3.8**	**3.6**			**2.7**	**2.3**	**3.4**	**3.4**	**3.1**	**3.1**		**4.6**	**5.7**	
Total gross financing need (Millions of U.S. dollars)	-247.7	-14.1	245.8			230.2	-6.4	-83.8	-130.8	-196.1	-198.9		-112.5	-334.9	
Non-interest current account deficit that stabilizes debt ratio	-57.2	13.7	18.8			13.1	8.8	11.6	7.8	-0.6	-2.1		2.6	0.0	
Key macroeconomic assumptions															
Real GDP growth (in percent)	4.7	3.6	5.7	3.8	1.2	4.2	5.2	2.2	5.9	6.3	3.1	4.5	5.0	5.0	5.0
GDP deflator in US dollar terms (change in percent)	-11.3	19.3	12.8	9.0	19.0	3.9	2.6	-0.4	3.4	4.2	1.4	2.5	2.0	2.0	2.0
Effective interest rate (percent) 5/	...	1.2	1.1	1.2	0.1	0.6	0.6	1.6	1.8	2.0	2.1	1.4	1.9	1.6	1.8
Growth of exports of G&S (US dollar terms, in percent)	-3.4	-3.6	21.1	14.1	15.6	15.6	12.3	3.2	21.8	20.8	4.9	13.1	8.0	7.3	8.1
Growth of imports of G&S (US dollar terms, in percent)	-3.0	18.9	16.5	10.5	16.1	6.8	13.0	0.7	-4.8	-0.1	1.8	2.9	4.0	7.2	7.4
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	20.0	18.1	37.5	30.2	28.9	6.4	23.5	10.7	10.7	9.1
Government revenues (excluding grants, in percent of GDP)	62.8	59.8	45.1			43.1	56.5	53.2	49.1	48.5	47.9		47.9	47.9	47.9
Aid flows (in Millions of US dollars) 7/	32.5	56.9	166.8			209.5	237.8	146.1	81.1	111.8	103.8		146.3	290.4	
o/w Grants	32.5	56.9	166.8			209.5	237.8	146.1	81.1	111.8	103.8		146.3	290.4	
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/	...	...	...			9.0	9.7	5.8	3.0	3.6	3.1		3.3	3.3	3.3
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			83.3	74.5	90.6	83.7	89.1	71.8		61.6	59.5	54.9
Memorandum items:															
Nominal GDP (Millions of US dollars)	1538.4	1900.9	2267.0			2453.2	2647.8	2695.2	2950.6	3267.6	3415.2		4812.5	9555.7	
Nominal dollar GDP growth	-7.1	23.6	19.3			8.2	7.9	1.8	9.5	10.7	4.5	7.1	7.1	7.1	7.1
PV of PPG external debt (in Millions of US dollars)			772.9			830.7	931.5	941.1	946.2	948.4	967.8		1751.8	2411.5	
(PVt-PVt-1)/GDPt-1 (in percent)						2.6	4.1	0.4	0.2	0.1	0.6	1.3	1.1	0.9	2.0
Gross workers' remittances (Millions of US dollars)	245.7	299.8	365.0			356.5	349.5	337.8	338.0	346.0	351.5		304.1	111.7	
PV of PPG external debt (in percent of GDP + remittances)	...	...	27.7			30.3	31.8	31.6	29.3	26.8	26.3		35.1	25.6	
PV of PPG external debt (in percent of exports + remittances)	...	...	54.1			57.0	58.5	57.9	49.5	42.3	41.5		51.9	37.0	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	2.8			1.9	2.1	3.0	2.5	2.1	2.1		3.1	3.9	

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, 2011-2031
(In percent)

	Projections							
	2011	2012	2013	2014	2015	2016	**2021**	2031
PV of debt-to GDP ratio								
Baseline	35	36	36	33	30	29	**37**	26
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	35	29	24	20	17	16	**9**	1
A2. New public sector loans on less favorable terms in 2011-2031 2	35	36	36	33	30	30	**43**	35
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	35	36	36	33	30	29	**37**	26
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	35	40	47	44	40	39	**44**	27
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	35	40	44	41	37	36	**46**	32
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	35	51	68	63	58	57	**56**	31
B5. Combination of B1-B4 using one-half standard deviation shocks	35	54	71	67	61	60	**59**	32
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	35	50	49	45	41	40	**51**	35
PV of debt-to-exports ratio								
Baseline	75	75	73	60	50	49	**57**	38
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	75	59	48	36	29	26	**13**	1
A2. New public sector loans on less favorable terms in 2011-2031 2	75	74	73	61	51	50	**65**	50
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	75	73	71	59	49	47	**55**	37
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	75	95	115	96	80	78	**80**	47
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	75	73	71	59	49	47	**55**	37
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	75	105	139	116	98	96	**86**	45
B5. Combination of B1-B4 using one-half standard deviation shocks	75	113	143	120	101	99	**89**	46
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	75	73	71	59	49	47	**55**	37
PV of debt-to-revenue ratio								
Baseline	81	64	67	66	61	61	**78**	54
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	81	50	44	40	36	33	**18**	1
A2. New public sector loans on less favorable terms in 2011-2031 2	81	63	67	67	62	62	**89**	72
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	81	64	67	67	61	60	**77**	54
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	81	71	89	89	82	82	**91**	57
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	81	71	83	82	76	75	**96**	66
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	81	90	128	129	120	120	**118**	64
B5. Combination of B1-B4 using one-half standard deviation shocks	81	96	134	135	126	126	**123**	67
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	81	88	93	92	84	83	**107**	74
Debt service-to-exports ratio								
Baseline	2	3	4	3	3	2	**3**	4
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	2	2	3	2	0	1	**1**	0
A2. New public sector loans on less favorable terms in 2011-2031 2	2	2	3	3	1	1	**4**	5
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	2	2	3	3	0	1	**4**	3
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	2	2	4	5	1	2	**6**	5
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	2	2	3	3	0	1	**4**	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	2	2	4	5	2	3	**7**	5
B5. Combination of B1-B4 using one-half standard deviation shocks	2	2	5	5	2	3	**7**	5
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	2	2	3	3	0	1	**4**	3
Debt service-to-revenue ratio								
Baseline	3	2	3	3	3	3	**5**	6
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	3	1	2	3	0	1	**2**	0
A2. New public sector loans on less favorable terms in 2011-2031 2	3	1	3	4	1	2	**6**	7
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	3	1	3	4	1	2	**5**	5
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	3	1	3	4	1	2	**7**	6
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	3	2	4	5	1	2	**7**	6
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	3	1	4	6	2	4	**9**	7
B5. Combination of B1-B4 using one-half standard deviation shocks	3	1	4	6	3	4	**10**	7
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	3	2	4	5	1	3	**7**	7
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	12	12	12	12	12	12	**12**	12

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, 2008-2031
(In percent of GDP, unless otherwise indicated)

	Actual			Average 5/	Standard Deviation 5/	Estimate	Projections								
	2008	2009	2010			2011	2012	2013	2014	2015	2016	2011-16 Average	2021	2031	2017-31 Average
Public sector debt 1/	50.6	38.2	35.2			39.6	42.2	45.0	41.7	39.4	39.2		44.6	29.8	
o/w foreign-currency denominated	45.7	34.7	30.4			33.7	35.9	39.1	36.5	34.9	35.0		42.0	28.8	
Change in public sector debt	50.6	-12.4	-3.0			4.4	2.5	2.9	-3.3	-2.3	-0.2		-2.2	-1.1	
Identified debt-creating flows	...	-9.6	-0.7			9.8	-3.9	-2.0	-6.4	-8.3	-5.8		-3.1	-2.0	
Primary deficit	-9.5	3.1	4.5	-5.2	7.2	9.6	-1.3	-1.9	-3.3	-5.2	-5.1	-1.2	-0.8	-0.4	-0.6
Revenue and grants	64.9	62.8	52.5			51.6	65.5	58.6	51.9	52.0	50.9		50.9	50.9	
of which: grants	2.1	3.0	7.4			8.5	9.0	5.4	2.7	3.4	3.0		3.0	3.0	
Primary (noninterest) expenditure	55.4	65.9	56.9			61.3	64.2	56.7	48.5	46.8	45.9		50.1	50.5	
Automatic debt dynamics	...	-12.8	-5.1			0.1	-2.6	-0.1	-3.1	-3.1	-0.7		-2.2	-1.5	
Contribution from interest rate/growth differential	...	-1.3	-2.0			-1.9	-2.0	-0.4	-2.4	-2.3	-1.0		-2.2	-1.5	
of which: contribution from average real interest rate	...	0.5	0.0			-0.4	0.0	0.5	0.1	0.1	0.2		0.0	-0.1	
of which: contribution from real GDP growth	0.0	-1.7	-2.1			-1.4	-2.0	-0.9	-2.5	-2.5	-1.2		-2.2	-1.5	
Contribution from real exchange rate depreciation	...	-11.5	-3.1			2.0	-0.7	0.3	-0.7	-0.8	0.3		...	...	
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	...	-2.8	-2.3			-5.3	6.5	4.8	3.1	6.0	5.6		0.9	0.9	
Other Sustainability Indicators															
PV of public sector debt	...	...	37.0			40.7	42.2	41.5	37.8	34.2	33.2		39.9	26.8	
o/w foreign-currency denominated	...	...	32.2			34.7	36.0	35.6	32.6	29.6	29.0		37.3	25.9	
o/w external	...	...	32.2			34.7	36.0	35.6	32.6	29.6	29.0		37.3	25.9	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	-6.4	6.2	6.9			11.9	1.5	1.1	-0.7	-3.1	-3.2		1.8	2.6	
PV of public sector debt-to-revenue and grants ratio (in percent)	…	…	70.5			78.8	64.5	70.8	72.9	65.7	65.2		78.2	52.7	
PV of public sector debt-to-revenue ratio (in percent)	…	…	82.0			94.4	74.7	78.0	77.0	70.4	69.3		83.2	56.0	
o/w external 3/	…	…	71.3			80.5	63.6	66.9	66.5	61.1	60.6		77.9	54.0	
Debt service-to-revenue and grants ratio (in percent) 4/	4.7	5.0	4.7			4.5	4.3	5.1	5.1	3.9	3.6		5.2	6.0	
Debt service-to-revenue ratio (in percent) 4/	4.9	5.2	5.5			5.4	4.9	5.6	5.4	4.2	3.9		5.6	6.3	
Primary deficit that stabilizes the debt-to-GDP ratio	-60.1	15.6	7.4			5.2	-3.8	-4.7	0.0	-2.9	-4.9		1.3	0.6	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	4.7	3.6	5.7	3.8	1.2	4.2	5.2	2.2	5.9	6.3	3.1	4.5	5.0	5.0	5.0
Average nominal interest rate on forex debt (in percent)	...	1.2	1.1	1.2	0.1	0.6	0.6	1.6	1.8	2.0	2.1	1.4	1.9	1.6	1.8
Average real interest rate on domestic debt (in percent)	...	3.6	4.5	4.1	0.7	1.0	0.0	3.5	0.5	0.1	2.8	1.3	2.7	2.7	2.7
Real exchange rate depreciation (in percent, + indicates depreciation)	8.0	-25.9	-9.5	-4.5	19.7	7.0	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	10.9	4.8	3.8	7.4	3.2	6.7	7.8	4.2	7.4	7.7	4.8	6.4	5.0	5.0	5.0
Growth of real primary spending (deflated by GDP deflator, in percent)	0.2	0.2	-0.1	0.1	0.1	0.1	0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.1	0.1
Grant element of new external borrowing (in percent)	...	...	...	…	…	20.0	18.1	37.5	30.2	28.9	6.4	23.5	10.7	10.7	...

Sources: Country authorities; and staff estimates and projections.

1/ Gross debt is used. The public sector comprises the central government, the Central Bank of Lesotho and all enterprises with majority state ownership.

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 2011-2031

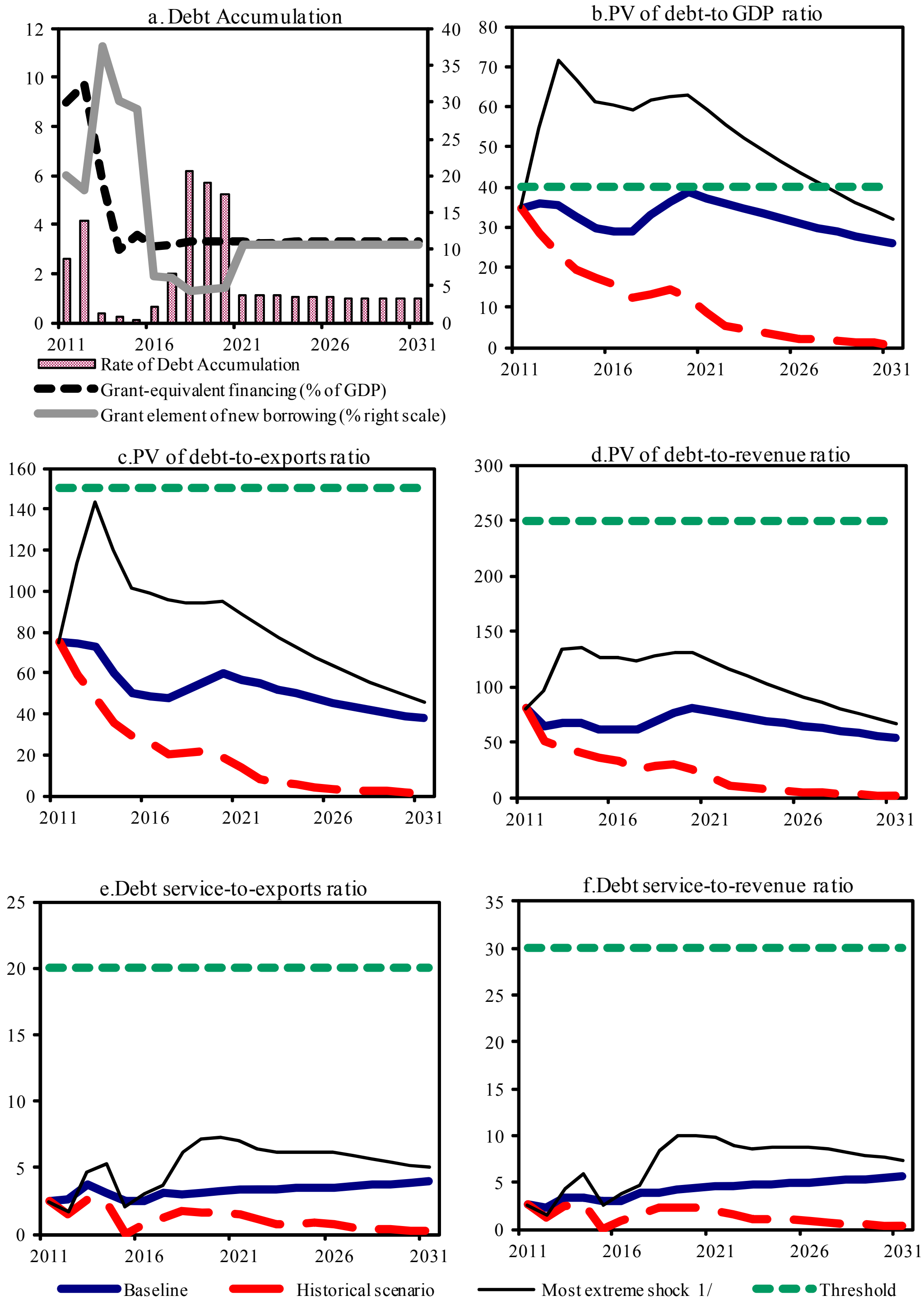
	Projections							
	2011	2012	2013	2014	2015	2016	2021	2031
PV of Debt-to-GDP Ratio								
Baseline	41	42	41	38	34	33	40	27
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	41	40	35	31	28	27	18	-22
A2. Primary balance is unchanged from 2011	41	52	61	68	75	87	127	164
A3. Permanently lower GDP growth 1/	41	43	42	39	36	35	46	47
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	41	45	45	42	39	39	49	41
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	41	45	48	44	40	39	44	30
B3. Combination of B1-B2 using one half standard deviation shocks	41	43	42	39	35	35	43	33
B4. One-time 30 percent real depreciation in 2012	41	57	54	49	44	43	49	37
B5. 10 percent of GDP increase in other debt-creating flows in 2012	41	51	50	46	42	41	46	31
PV of Debt-to-Revenue Ratio 2/								
Baseline	79	64	71	73	66	65	78	53
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	79	60	60	60	55	54	36	-43
A2. Primary balance is unchanged from 2011	79	79	105	131	145	171	249	321
A3. Permanently lower GDP growth 1/	79	65	72	75	68	69	91	93
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	79	68	76	81	74	76	96	81
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	79	69	82	85	77	76	87	59
B3. Combination of B1-B2 using one half standard deviation shocks	79	65	72	75	68	68	85	64
B4. One-time 30 percent real depreciation in 2012	79	87	93	95	85	84	96	73
B5. 10 percent of GDP increase in other debt-creating flows in 2012	79	78	86	89	81	80	91	61
Debt Service-to-Revenue Ratio 2/								
Baseline	4	4	5	5	4	4	5	6
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	4	4	5	4	4	4	4	1
A2. Primary balance is unchanged from 2011	4	3	5	6	6	7	12	22
A3. Permanently lower GDP growth 1/	4	3	5	5	4	4	6	8
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	4	4	5	5	4	4	6	8
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	4	3	5	5	5	4	6	7
B3. Combination of B1-B2 using one half standard deviation shocks	4	4	5	5	4	4	5	7
B4. One-time 30 percent real depreciation in 2012	4	4	6	6	6	6	8	10
B5. 10 percent of GDP increase in other debt-creating flows in 2012	4	3	5	6	5	5	6	7

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.

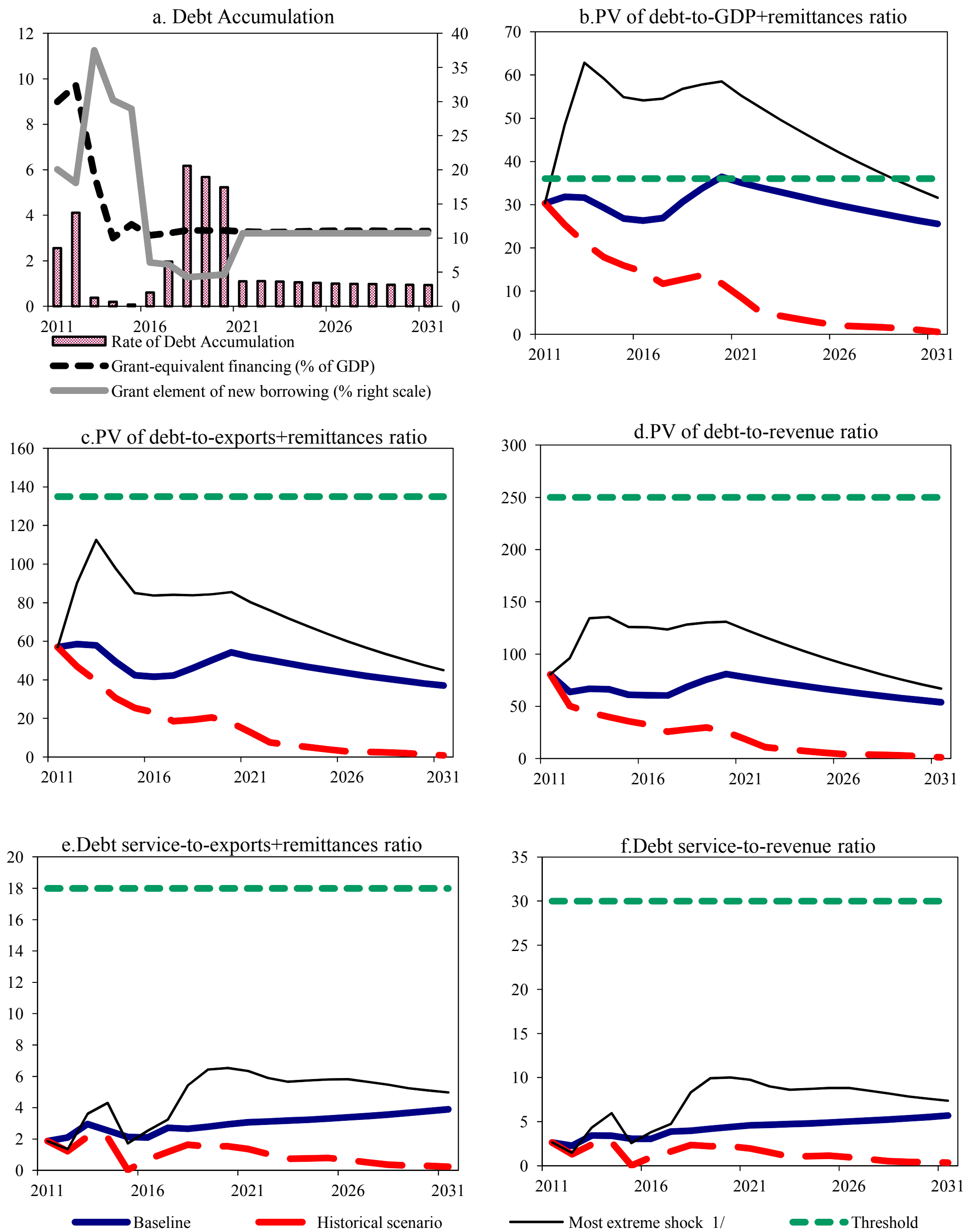
Figure 1. Lesotho: Indicators of Public and Publicly Guaranteed External Debt
under Alternatives Scenarios, 2011-2031 1/



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 Combination shock; in c. to a Combination shock; in d. to a Combination shock; in e. to a Combination shock and in figure f. to a Combination shock

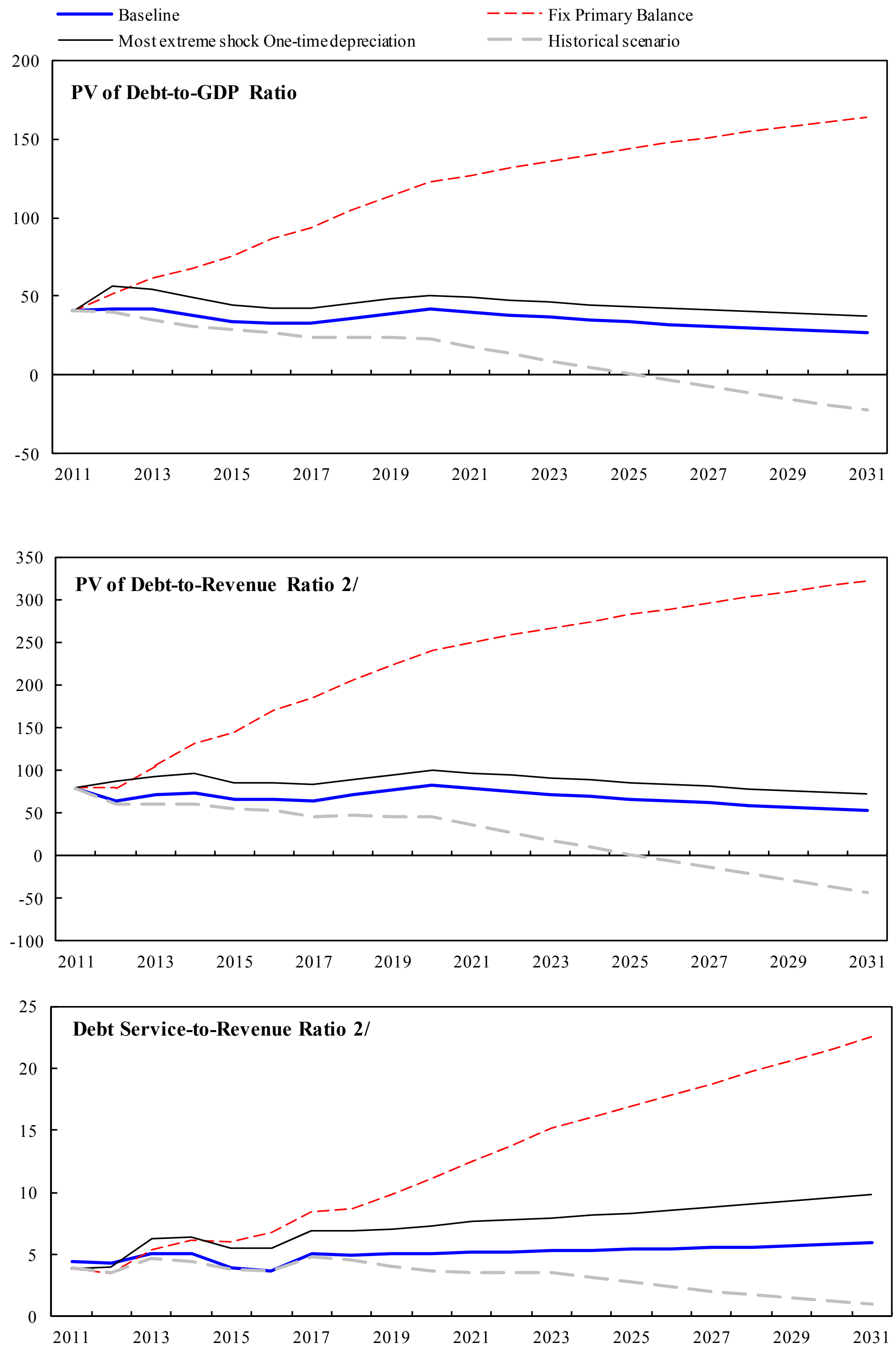
Figure 2a. Lesotho: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2011-2031 1/



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 Combination shock; in c. to a Combination shock; in d. to a Combination shock; in e. to a Combination shock and in figure f. to a Combination shock

Figure 2b. Lesotho: Indicators of Public and Publicly Guaranteed Debt
under Alternatives Scenarios, 2011-2031 1/



1/ The most extreme stress test is the test that yields the highest ratio in 2021.
2/ Revenues are defined inclusive of grants.