

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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This debt sustainability analysis (DSA) is based on end-2007 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 similar to last year's DSA, Lesotho is at a moderate risk of debt distress and remains vulnerable to adverse shocks to the exchange rate, Southern African Customs Union (SACU) revenues and the GDP growth rate, although debt appears manageable in a baseline scenario.

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. The framework takes into account indicative thresholds for debt burden indicators determined by the quality of the country's policies and institutions,¹ and comprises baseline and alternative scenarios.

2. **Lesotho's nominal public sector debt has shown a significant decline since 2002 falling from 92 percent of GDP to 43 percent of GDP (US\$742.1 million) at the end of 2007.** Much of the decline is attributed to the authorities' early repayment of non concessional loans, limit on new borrowing, and a significant exchange rate appreciation from 2003 to 2006. Of the total public sector debt, US\$625.7 million was externally owed,

¹ 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 3.5. 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.

with about 92 percent of the total (US\$575.8 million) owed to multilateral creditors, mainly IDA and the African Development Fund.² Government also has domestic debt held by residents in the amount of US\$116.4 million. For private sector debt, only obligations toward countries outside the Common Monetary Area are recorded. At end 2007, these obligations were estimated at US\$2.9 million.

**Lesotho: External and Domestic Nominal Debt Outstanding
at end-2007**

	In Millions of U.S. Dollars	In Percent of GDP
Total debt	745.0	43.1
Domestic and external ppg debt	742.1	42.9
Domestic debt	116.4	6.7
External public ppg debt	625.7	36.2
Multilateral sources	575.8	33.1
World Bank Group	275.7	15.9
African Development Fund	189.4	10.9
EU	27.6	1.6
IMF	32.2	1.9
Others	50.9	2.9
Bilateral sources	35.4	2.0
Commercial sources	14.5	0.8
Total private external debt	2.9	0.2
Memorandum item:		
NPV of total external debt	389.5	21.9

3. **The global financial crisis and economic downturn will adversely affect Lesotho's economy.** Lesotho's economy is affected by economic developments in its major trading partners, South Africa and the United States which account for 69 percent and 19 percent of its total trade, respectively. The main transmission channels include: (i) **SACU revenues:** A slower growth in South Africa's economy reduces import demand, hence, customs duties and excise revenues (the major sources of SACU revenues); SACU revenues have already been revised down by 6 percent of GDP in 2009; (ii) **textiles:** With the slow-down in the U.S. economy (Lesotho's main export market for garments), exports from Lesotho have declined by 15 percent during the first 10-months of 2008 and Lesotho has been losing market share in the U.S. textile market. In addition, as most of the textile

² The nominal public debt data does not include debt issued by the Lesotho Highlands Development Authority (LHDA). Under the terms of the agreement with South Africa, the liabilities of the LHDA, which are equal to about 10 percent of GDP, are not included since LHDA obtains financing to cover its debt service obligations from South Africa.

factories in Lesotho are owned by firms in Asia, some of them are facing difficulties obtaining trade credit for input financing from their Asian banks, which have been affected by the global credit crunch; (iii) **mining**: weak prices for diamond and the global credit crunch have already affected mining production and weakened prospects in the near term; and (iv) **worker remittances** (20 percent of GDP)—mainly from South Africa—are likely to decline amid the slowdown in South Africa’s mines which employ many Basothos.

4. **Overall, real GDP growth is projected to slow down from 5.1 percent in 2007 to 3.9 percent and 2.1 percent in 2008 and 2009, respectively.** Much of the slowdown in 2009 is attributable to falling mining and textile production, which are each projected to fall by 6 percent. However, as the global economy recovers, growth is expected to increase to a range of 4–5 percent in the medium term.

II. ASSUMPTIONS

5. **The baseline scenario is premised on a number of macroeconomic projections and reflects the global financial crisis and economic downturn in the near term (Box 1).** Compared to last year’s DSA, the 2008 DSA assumes a slightly lower rate of real GDP growth and a current account that is projected to be in deficit. Real GDP growth is now projected to average 4.1 percent up to 2013 with long-term growth remaining at 4.3 percent, compared to average growth rates of 5.3 in the medium-term projected in the last DSA. Sizable grants (US\$362.5 million, equivalent to 22 percent of GDP) will be made available to the government during the next five years under the Millennium Challenge Compact (MCC), which will allow it to undertake significant capital investment in the development of the country’s health infrastructure, water supply, and private sector development. In particular, the construction of the Metolong dam is expected to increase the potential for the location of “wet industries” such as fabric production, which would allow Lesotho to take fuller advantage of the African Growth and Opportunity Act (AGOA) beyond 2012. Overall, this is expected to contribute around 1.5 percent to growth in the medium term. In addition, the recent approval by South Africa of the second phase of the LHDA water project scheduled to begin in 2012/13, will help in contributing to the slightly better medium-term growth performance than has been observed in the past. However, the recent problems in the mining and manufacturing sectors are expected to adversely affect growth and as such the projections for this year’s DSA are somewhat lower than last year’s.

6. **The 2008 DSA assumes the current account will return to deficit as the level of SACU transfers drop** to a lower level and the textile and mining sectors come under increasing pressure. After a few years of good performance the textile sector has begun to experience a decline. In addition, diamond exports and revenue from the SACU are projected to be lower and should adversely affect the current account in the medium term. Under the

Box 1. Main Assumptions Under the Baseline Scenario

- Real GDP growth is assumed to be supported by the implementation of projects under the MCC and the second phase of the LHDA water project. Growth should increase from 3.3 percent over the last ten years to about 4.1 percent in 2008–13 and then from 2014 to stabilize at 4.3 percent.
- Inflation (as measured by the implicit GDP deflator) is assumed to move from an average of about 7½ percent over the last ten years to about 6 percent over the medium term and falling to about 4 percent over the longer term. This is in line with anticipated inflation developments in South Africa.
- Despite lower SACU revenues, the overall fiscal balance is projected to be in surplus over the medium term (5 percent of GDP) consistent with a stable non-SACU deficit of 24–25 percent of GDP. Over the long term, the fiscal surplus is projected to narrow down to below 4 percent of GDP, with revenues growing in line with nominal GDP and primary spending constant in real terms.
- Growth in exports of goods and services (in U.S. dollar terms) after averaging 14 percent over the last 10 years is assumed to drop on average by 3 percent over the medium term before recovering to about 8 percent in the long term. Import growth is assumed at about 2 percent over the medium term before climbing to more than 8 percent in the longer term broadly in line with GDP growth.
- The current account balance (including official transfers) is determined by the above trends, declining from a 12.7 percent of GDP surplus in 2007 to subsequent deficits as SACU transfers, textile and diamond exports decline significantly. Net income is also assumed to decrease gradually over the long term as remittances from South Africa continue to become less important over time.
- Net external public sector financing rises gradually, peaking at 3 percent of GDP by 2015 and stabilizes at about 1½ percent of GDP over the long term. Foreign grants are assumed to increase to about 5 percent of GDP over the medium term, reflecting the MCC compact, and thereafter to decline to about 1½ percent of GDP. After 2012, it is assumed that borrowing from IDA would be at hardened terms. It is further assumed that new non-IDA borrowing would be contracted on highly concessional terms
- Domestic debt is projected to fall in nominal terms gradually over time. Private sector debt is projected to increase only marginally in terms of GDP, to 0.5 percent by 2028.

Atlas method, Lesotho's GNI per capita stood at US\$1,000 in 2007. Taking into account the lags included in this methodology and the assumptions about growth, Lesotho would no longer be able to borrow at standard IDA terms after 2010.³ In the baseline scenario, Lesotho starts facing "IDA-hardened" terms after 2012 as a result of the growth in its GNI per capita.

³ In the DSA, IDA-hardened terms are incorporated and substituted for standard IDA terms after 2012, and implies a charge of 0.75 percent, grace period of 10 years and a maturity period of 20 years (including the grace period), compared to the 40-year maturity of standard IDA terms.

Comparison of Key Variables in Debt Sustainability Analysis 2006–13

	Real GDP Growth				Noninterest Current Account (In Percent of GDP)			
	2006	2007	2008	Actual	2006	2007	2008	Actual
2006	2.5	...	...	8.1	-3.2	...	...	4.9
2007	1.4	4.9	...	5.1	1.8	2.1	...	16.7
2008	1.4	5.2	3.9	...	-1.4	1.2	-3.4	...
2009	2.6	5.4	2.1	...	-4.7	2.0	-8.1	...
2010	2.7	5.5	5.5	...	-6.1	1.1	-6.1	...
2011	2.7	5.6	4.5	...	-6.5	-0.8	-5.1	...
2012	2.8	5.1	4.3	...	-7.3	-1.7	-4.9	...
2013	3.0	5.2	4.2	...	-8.1	-2.1	-4.5	...

III. EXTERNAL DEBT SUSTAINABILITY

Baseline

7. **At end-2007, the NPV of external debt stood at 21.9 percent of GDP (Table 1a).** Under the baseline scenarios, Lesotho's external debt indicators remain well below the thresholds throughout the projection period. The PV of debt-to-GDP ratio is expected to gradually decrease to 20 percent in 2018, below the policy-based indicative threshold (40 percent); and the PV of debt-to-export ratio would rise to 64 percent by 2018, although it would still be significantly below the 150 percent threshold. The highly concessional nature of the existing debt and new borrowing contributes to debt service ratios below the indicative threshold throughout the projection period. The government undertook to repay early a significant amount of non concessional debt resulting in lower scheduled interest payments and hence a declining effective interest on debt. Borrowing, however, is expected to still be on broadly concessional terms.⁴

Alternative scenarios and stress tests

8. **Sensitivity tests show that while Lesotho's debt burden would worsen in the event of an adverse macroeconomic shock or weaker economic performance compared to historical outcomes, it would remain below the indicative thresholds in most cases (Table 1b and Figure 1).** Real GDP growth in the 10-year period up to 2007 averaged 3.3 percent, less than that assumed in the projection period. The noninterest current account was also significantly weaker than that projected under the baseline scenario due to the lower level of SACU transfers. As a result, the evolution of debt would be adversely affected should the key macroeconomic variables during the projection period revert to their pre-2007 levels. Debt indicators in the historical scenario (scenario A1) tend to be more elevated than

⁴ The depreciation of the loti had a significant effect on the debt-to-GDP ratio in 2008.

under the baseline scenario, with some indicators (PV of debt to GDP and PV of debt to exports) crossing the debt thresholds by 2020, underscoring the need to become more competitive, boost export receipts and grow at a faster rate.

9. **A shock to SACU transfers could be sizable.** In October 2008, SACU revenue projection for Lesotho was revised down by about 6 percent of GDP relative to the previous projection for 2009/10. The baseline scenario already incorporates this downward revision. The sensitivity scenario of reducing SACU transfers thus assumes a permanent decline of the same magnitude (6 percent of GDP) relative to the baseline for the entire projection period starting in 2009. The same sensitivity exercise is also conducted for public debt DSA; see below. SACU transfers represent more than 50 percent of export receipts. When SACU transfers are reduced permanently relative to the baseline by about 6 percent of GDP, (Table 1b; scenario A3), all debt indicators worsen. More importantly, two debt indicators (PV of debt to GDP and PV of debt to exports) cross their thresholds as early as 2014 and 2016, respectively, underscoring the importance of these transfers to sustainability of the current account.

10. **The bound tests reveal that Lesotho would face the most distress if there were to be a much lower level of non debt creating flows (scenario B1).** Under this scenario, the PV of debt-to-GDP ratio first increases to 40 percent of GDP in 2010 before falling to 33 percent of GDP in 2018. There are also underlying vulnerabilities with respect to the combined impact of lower GDP, export growth and nondebt creating flows. Such a shock would lead to higher PV of debt-to-GDP and PV of debt-to- exports ratios compared to the baseline scenario.

IV. PUBLIC SECTOR DEBT SUSTAINABILITY

Baseline

11. **At end-2007 domestic debt contributed only marginally to the baseline scenarios for Lesotho's public debt ratios (Table 2a).** Lesotho has a low level of domestic debt, and so public debt indicators are very closely aligned to those of public external debt. Domestic debt, which was at 6.7 percent of GDP at the end of 2007, is expected to be gradually reduced by 2018 to 3 percent of GDP. Domestic debt has been issued by government mostly to provide an impetus to the formation of a money market. The proceeds from the sale of T-bills are held in deposits at the Central Bank of Lesotho; therefore these bills have not represented additions to net debt.

12. **The trajectory of gross debt understates somewhat the decline in Lesotho's net indebtedness** especially in the next few years. This trajectory takes into account the disbursement of loans in the pipeline even in periods when fiscal surpluses would permit a net reduction of debt. It is also assumed that the authorities will stick to the original schedule for the repayment of the highly concessional debt. This implies that the public sector will

accumulate some assets over the medium term, as indicated by large residuals in tables 1a and 2a. Alternatively, the analysis could be assumed to show that there is margin for lower primary surpluses that would remain consistent with the reduction in gross debt shown in Figure 2. However, because of limited implementation capacity, the authorities are not expected to significantly increase their level of capital investment making it more likely that they will accumulate assets rather than significantly increase their investment levels.

Alternative scenarios and stress tests

13. **In the standard sensitivity tests public sector debt to GDP ratios will deteriorate (Table 2b and Figure 2).** The indicators are most sensitive to a permanent decline in SACU revenues and deviations from the baseline growth path. In the scenario with variables at historical averages, ratios initially rise but eventually decline. The most extreme shock is linked to a permanent decline in SACU revenues further reinforcing the need to guard fiscal sustainability.

14. **A permanent adverse shock to SACU revenues could lead to a rising public debt profile.** A shock of the same magnitude as in the external DSA (sustained reduction in SACU revenue) would increase the PV of public debt to GDP ratio from 31 percent in 2009 to 40 percent in 2013, a sizable increase over only five years. By 2028, the ratio would stand at 68 percent, twice the ratio in 2008.

V. CONCLUSION

15. **Lesotho faces a moderate risk of debt distress although in the baseline scenario key debt ratios are below the indicative thresholds for a country with Lesotho's performance rating.** The risk would materialize if key variables such as economic growth and the current account deficit were to revert to their historical levels or if Lesotho were to face a sizable adverse shock to SACU revenues. These results therefore underscore the need for the authorities to enhance non-SACU revenues, contain overall spending, ensure adequate levels of reserves, and accelerate growth, through increased competitiveness while continuing to seek grants and highly concessional loans.

Table 1a. Lesotho: External Debt Sustainability Framework, Baseline Scenario, 2005–2028 1/

(In percent of GDP; unless otherwise indicated)

	Actual			Historical Average	Standard Deviation	Projections					2008–2013		2014–2028	
	2005	2006	2007			2008	2009	2010	2011	2012	2013	Average	2018	2028	Average
External debt (nominal) 1/	45.4	42.3	36.3			46.9	38.5	35.5	33.4	32.4	31.9		31.6	24.9
Of which: Public and publicly guaranteed (PPG)	45.2	42.1	36.2			46.7	38.3	35.3	33.2	32.1	31.6		31.4	24.4
Change in external debt	-3.0	-3.1	-6.0			10.6	-8.5	-2.9	-2.1	-1.0	-0.5		-0.3	-0.2
Identified net debt-creating flows	0.2	-14.6	-22.9			-3.1	3.8	0.0	-1.2	-1.9	-2.2		-1.6	-1.8
Noninterest current account deficit	6.5	-4.9	-16.7	8.1	12.7	3.4	8.1	6.1	5.1	4.9	4.5		5.4	6.0
Deficit in balance of goods and services	51.4	46.4	49.8			63.4	57.8	53.7	53.4	52.6	51.8		44.5	41.6
Exports	51.1	50.0	52.7			47.3	41.6	38.7	36.5	34.4	32.6		31.0	31.3
Imports	102.5	96.4	102.5			110.8	99.4	92.4	90.0	86.9	84.4		75.5	72.9
Net current transfers (negative = inflow)	-21.8	-25.7	-37.6	-21.2	6.3	-33.8	-28.5	-27.8	-29.3	-29.1	-28.9		-21.2	-10.3
Of which: Official	-21.1	-24.5	-37.5			-33.7	-28.4	-27.8	-29.2	-29.1	-28.9		-27.8	-29.0
Other current account flows (negative = net inflow)	-23.1	-25.7	-29.0			-26.2	-21.2	-19.8	-19.0	-18.6	-18.4		-17.9	-25.2
Net FDI (negative = inflow)	-4.2	-6.1	-6.3	-4.4	1.0	-5.4	-3.9	-4.6	-5.3	-5.9	-5.9		-6.3	-7.3
Endogenous debt dynamics 2/	-2.1	-3.6	0.2			-1.2	-0.4	-1.5	-1.0	-0.9	-0.8		-0.8	-0.6
Contribution from nominal interest rate	0.9	0.6	4.1			0.3	0.5	0.4	0.5	0.5	0.5		0.5	0.4
Contribution from real GDP growth	-0.3	-3.3	-1.9			-1.5	-0.9	-1.9	-1.5	-1.4	-1.3		-1.3	-1.0
Contribution from price and exchange rate changes	-2.7	-0.9	-2.0			...	...	...	...	...	...		...	...
Residual (3-4) 3/	-3.2	11.5	16.9			13.7	-12.2	-3.0	-0.9	0.9	1.7		1.4	1.6
Of which: 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/	...	...	21.9			23.3	22.8	21.4	20.3	19.8	19.6		19.8	16.5
In percent of exports	...	...	41.5			49.2	55.0	55.2	55.6	57.7	60.2		64.0	52.7
PV of PPG external debt	...	...	21.7			23.1	22.7	21.2	20.1	19.6	19.4		19.7	16.0
In percent of exports	...	...	41.2			48.8	54.5	54.6	55.0	57.0	59.5		63.5	51.1
In percent of government revenues	...	...	34.2			38.0	41.9	40.3	37.2	36.2	35.8		36.7	29.8
Debt service-to-exports ratio (in percent)	11.6	5.4	11.5			2.8	4.5	4.5	4.9	4.8	5.0		4.4	4.7
PPG debt service-to-exports ratio (in percent)	11.6	5.4	11.5			2.8	4.5	4.5	4.9	4.8	5.0		4.4	4.7
PPG debt service-to-revenue ratio (in percent)	11.7	4.7	9.5			2.2	3.5	3.3	3.3	3.0	3.0		2.5	2.7
Total gross financing need (billions of U.S. dollars)	0.1	-0.1	-0.3			0.0	0.1	0.1	0.0	0.0	0.0		0.0	0.0
Noninterest current account deficit that stabilizes debt ratio	9.5	-1.8	-10.8			-7.1	16.6	9.0	7.2	5.9	5.0		5.7	6.2
Key macroeconomic assumptions														
Real GDP growth (in percent)	0.7	8.1	5.1	3.3	2.4	3.9	2.1	5.5	4.5	4.3	4.2	4.1	4.3	4.3
GDP deflator in US dollar terms (change in percent)	6.0	2.0	4.9	4.0	17.2	-6.7	3.2	4.3	1.8	1.8	1.3	1.0	4.0	4.0
Effective interest rate (percent) 5/	2.0	1.4	10.7	3.1	2.7	0.8	1.2	1.3	1.4	1.4	1.5	1.3	1.6	1.8
Growth of exports of G&S (US dollar terms, in percent)	-9.2	7.9	16.0	14.0	20.1	-12.8	-7.4	2.6	0.3	0.0	0.1	-2.9	8.6	8.2
Growth of imports of G&S (US dollar terms, in percent)	1.5	3.6	17.2	5.7	16.6	4.9	-5.4	2.4	3.6	2.7	2.5	1.8	7.8	8.3
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	22.2	34.0	30.6	31.1	35.9	34.1	31.3	37.2	29.7
Government revenues (excluding grants, in percent of GDP)	50.4	57.6	63.5			60.7	54.0	52.5	53.9	54.1	54.2		53.7	53.7
Aid flows (in Billions of US dollars) 7/	0.0	0.0	0.0			0.0	0.1	0.1	0.1	0.1	0.1		0.0	0.1
Of which: Grants	0.0	0.0	0.0			0.0	0.1	0.1	0.1	0.1	0.1		0.0	0.1
Of which: 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/	...	...	...			2.3	4.5	5.4	6.2	5.7	3.7		2.4	2.0
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			72.7	74.5	80.5	86.6	80.4	70.8		55.8	54.1
Memorandum items:														
Nominal GDP (billions of U.S. dollars)	1.4	1.5	1.7			1.6	1.7	1.9	2.0	2.1	2.2		3.4	7.6
Nominal dollar GDP growth	6.7	10.2	10.2			-3.0	5.4	10.1	6.4	6.2	5.6	5.1	8.5	8.5
PV of PPG external debt (in billions of U.S. dollars)			0.4			0.4	0.4	0.4	0.4	0.4	0.4		0.7	1.2
(Pvt-Pvt-1)/GDPT-1 (in percent)						0.7	0.8	0.6	0.2	0.7	0.9	0.7	1.6	1.1

Source: Staff simulations.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - r(1+g)] / (1+g+r+gr)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and r = 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).

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Table 1b. Lesotho: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2008–2028

(Projections; in percent)

	2008	2009	2010	2011	2012	2013	2018	2028
PV of debt-to GDP ratio								
Baseline	23	23	21	20	20	19	20	16
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2008-2028 1/	23	21	21	22	24	27	39	51
A2. New public sector loans on less favorable terms in 2008-2028 2/	23	23	22	21	21	21	22	20
A3. Permanent decline in SACU transfers by 6 percent of GDP starting in 2009	23	27	29	32	36	39	54	63
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2009-2010	23	23	22	21	20	20	21	17
B2. Export value growth at historical average minus one standard deviation in 2009-2010 3/	23	21	19	18	18	18	18	16
B3. US dollar GDP deflator at historical average minus one standard deviation in 2009-2010	23	26	29	28	27	27	27	22
B4. Net non-debt creating flows at historical average minus one standard deviation in 2009-2010 4/	23	32	40	39	38	37	33	20
B5. Combination of B1-B4 using one-half standard deviation shocks	23	28	33	32	31	30	29	20
B6. One-time 30 percent nominal depreciation relative to the baseline in 2009 5/	23	32	30	28	28	27	28	22
PV of debt-to-exports ratio								
Baseline	49	55	55	55	57	60	63	51
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2008-2028 1/	49	51	55	61	71	82	126	164
A2. New public sector loans on less favorable terms in 2008-2028 2/	49	56	57	58	61	64	72	64
A3. Permanent decline in SACU transfers by 6 percent of GDP starting in 2009	49	64	76	88	104	121	174	200
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2009-2010	49	54	54	55	57	59	63	51
B2. Export value growth at historical average minus one standard deviation in 2009-2010 3/	49	48	50	50	52	54	59	50
B3. US dollar GDP deflator at historical average minus one standard deviation in 2009-2010	49	54	54	55	57	59	63	51
B4. Net non-debt creating flows at historical average minus one standard deviation in 2009-2010 4/	49	78	103	106	110	114	106	63
B5. Combination of B1-B4 using one-half standard deviation shocks	49	54	60	60	63	65	65	46
B6. One-time 30 percent nominal depreciation relative to the baseline in 2009 5/	49	54	54	55	57	59	63	51
PV of debt-to-revenue ratio								
Baseline	38	42	40	37	36	36	37	30
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2008-2028 1/	38	39	41	41	45	49	73	96
A2. New public sector loans on less favorable terms in 2008-2028 2/	38	43	42	39	39	39	42	37
A3. Permanent decline in SACU transfers by 6 percent of GDP starting in 2009	38	50	56	60	66	73	100	117
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2009-2010	38	42	42	39	38	37	38	31
B2. Export value growth at historical average minus one standard deviation in 2009-2010 3/	38	39	37	34	33	33	34	29
B3. US dollar GDP deflator at historical average minus one standard deviation in 2009-2010	38	49	56	52	50	50	51	41
B4. Net non-debt creating flows at historical average minus one standard deviation in 2009-2010 4/	38	60	76	71	70	69	61	37
B5. Combination of B1-B4 using one-half standard deviation shocks	38	51	63	58	57	56	54	38
B6. One-time 30 percent nominal depreciation relative to the baseline in 2009 5/	38	59	57	52	51	50	51	42

Table 1b. Lesotho: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2008–2028

(Projections; in percent)

	2008	2009	2010	2011	2012	2013	2018	2028
Debt service-to-exports ratio								
Baseline	3	5	5	5	5	5	4	5
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2008-2028 1/	3	4	4	5	5	5	6	10
A2. New public sector loans on less favorable terms in 2008-2028 2/	3	5	5	5	5	5	5	4
A3. Permanent decline in SACU transfers by 6 percent of GDP starting in 2009	3	5	5	6	6	6	8	14
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2009-2010	3	5	5	5	5	5	4	5
B2. Export value growth at historical average minus one standard deviation in 2009-2010 3/	3	4	4	5	5	5	4	5
B3. US dollar GDP deflator at historical average minus one standard deviation in 2009-2010	3	5	5	5	5	5	4	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2009-2010 4/	3	5	5	6	6	7	8	7
B5. Combination of B1-B4 using one-half standard deviation shocks	3	4	4	4	4	5	5	4
B6. One-time 30 percent nominal depreciation relative to the baseline in 2009 5/	3	5	5	5	5	5	4	5
Debt service-to-revenue ratio								
Baseline	2	3	3	3	3	3	3	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2008-2028 1/	2	3	3	3	3	3	3	6
A2. New public sector loans on less favorable terms in 2008-2028 2/	2	3	3	3	3	3	3	2
A3. Permanent decline in SACU transfers by 6 percent of GDP starting in 2009	2	3	4	4	4	4	5	8
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2009-2010	2	3	4	3	3	3	3	3
B2. Export value growth at historical average minus one standard deviation in 2009-2010 3/	2	3	3	3	3	3	2	3
B3. US dollar GDP deflator at historical average minus one standard deviation in 2009-2010	2	4	5	5	4	4	3	4
B4. Net non-debt creating flows at historical average minus one standard deviation in 2009-2010 4/	2	3	4	4	4	4	5	4
B5. Combination of B1-B4 using one-half standard deviation shocks	2	4	4	4	4	4	4	4
B6. One-time 30 percent nominal depreciation relative to the baseline in 2009 5/	2	5	5	5	4	4	4	4
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	30	30	30	30	30	30	30	30

Source: Staff projections and simulations.

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, 2005–2028

(In percent of GDP, unless otherwise indicated)

	Actual			Average	Standard Deviation	Projections									
	2005	2006	2007			2008–13					2014–28				
						2008	2009	2010	2011	2012	2013	Average	2018	2028	Average
Public sector debt 1/	54.5	50.3	42.9			52.4	43.1	39.6	37.3	36.1	35.5		34.7	26.7	
<i>Of which:</i> Foreign-currency denominated	45.2	42.1	36.2			46.7	38.3	35.3	33.2	32.1	31.6		31.4	24.4	
Change in public sector debt	-2.9	-4.3	-7.4			9.4	-9.3	-3.4	-2.3	-1.2	-0.6		-0.4	-0.6	
Identified debt-creating flows	-2.1	-16.9	-24.0			0.8	-13.3	-8.0	-8.3	-8.3	-7.8		-6.4	-5.8	
Primary deficit	-6.6	-13.8	-20.9	-4.0	9.2	-9.6	-4.2	-4.6	-6.4	-6.6	-6.4	-6.3	-4.3	-4.2	-4.2
Revenue and grants	52.6	58.7	64.8			62.8	57.7	57.3	59.7	59.0	57.1		55.0	55.0	
<i>Of which:</i> Grants	2.2	1.1	1.3			2.0	3.7	4.8	5.8	4.9	2.9		1.3	1.3	
Primary (noninterest) expenditure	46.0	44.9	43.9			53.2	53.6	52.8	53.4	52.5	50.7		50.7	50.8	
Automatic debt dynamics	4.5	-3.1	-3.0			10.4	-9.1	-3.4	-1.9	-1.8	-1.3		-2.1	-1.6	
Contribution from interest rate/growth differential	-0.8	-5.0	0.5			-2.0	-1.5	-2.6	-1.8	-1.7	-1.6		-1.5	-1.2	
<i>Of which:</i> Contribution from average real interest rate	-0.4	-1.0	3.0			-0.4	-0.4	-0.3	-0.1	-0.1	-0.1		-0.1	0.0	
<i>Of which:</i> Contribution from real GDP growth	-0.4	-4.1	-2.4			-1.6	-1.1	-2.3	-1.7	-1.5	-1.5		-1.4	-1.1	
Contribution from real exchange rate depreciation	5.3	1.9	-3.6			12.5	-7.6	-0.9	-0.1	-0.1	0.2	...	...	...
Residual, including asset changes	-0.8	12.6	16.6			8.6	4.0	4.6	6.0	7.1	7.2		6.1	5.2	
Other sustainability indicators															
PV of public sector debt	41.2	38.1	27.7			33.5	27.9	25.8	24.5	23.8	23.5		23.2	18.6	
<i>Of which:</i> Foreign-currency denominated	32.0	30.0	21.0			27.9	23.1	21.5	20.4	19.8	19.7		19.9	16.2	
<i>Of which:</i> External	32.0	30.0	21.0			27.9	23.1	21.5	20.4	19.8	19.7		19.9	16.2	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 2/	-0.1	-10.6	-14.5			-7.9	-1.9	-2.6	-4.4	-4.7	-4.7		-2.8	-2.6	
PV of public sector debt-to-revenue and grants ratio (in percent)	78.4	65.0	42.8			53.4	48.3	45.1	41.0	40.3	41.1		42.2	33.8	
PV of public sector debt-to-revenue ratio (in percent)	81.8	66.2	43.6			55.2	51.6	49.2	45.4	44.0	43.3		43.2	34.6	
<i>Of which:</i> External 3/	63.4	52.1	33.0			45.9	42.7	41.0	37.8	36.7	36.3		37.2	30.2	
Debt service-to-revenue and grants ratio (in percent) 4/	12.3	5.3	10.0			2.8	3.9	3.5	3.4	3.1	3.1		2.7	2.9	
Debt service-to-revenue ratio (in percent) 4/	12.9	5.4	10.2			2.9	4.1	3.9	3.7	3.4	3.3		2.8	2.9	
Primary deficit that stabilizes the debt-to-GDP ratio	-3.7	-9.5	-13.6			-19.1	5.1	-1.1	-4.1	-5.3	-5.8		-3.9	-3.5	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	0.7	8.1	5.1	3.3	2.4	3.9	2.1	5.5	4.5	4.3	4.2	4.1	4.3	4.3	4.3
Average nominal interest rate on forex debt (in percent)	2.0	1.4	10.8	3.1	2.7	0.8	1.2	1.3	1.4	1.5	1.5	1.3	1.6	1.8	1.6
Average real interest rate on domestic debt (in percent)	2.3	-3.1	-3.2	4.8	14.4	-1.9	-1.5	-1.6	0.4	0.1	0.5	-0.7	0.3	0.3	0.3
Real exchange rate depreciation (in percent, + indicates depreciation)	11.2	4.7	-8.2	0.0	27.4	36.1	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	4.3	8.6	9.2	7.4	3.1	9.6	8.7	8.2	5.4	5.0	3.8	6.8	4.0	4.0	4.0
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	0.1	0.0	0.0	0.1	0.3	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	22.2	34.0	30.6	31.1	35.9	34.1	31.3	37.2	29.7	...

Sources: Lesotho authorities; and Fund 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, Projections 2008–2028

	2008	2009	2010	2011	2012	2013	2018	2028
PV of Debt-to-GDP Ratio								
Baseline	34	28	26	24	24	23	23	19
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	34	28	26	27	29	31	33	31
A2. Primary balance is unchanged from 2008	34	23	17	13	9	6	...	...
A3. Permanently lower GDP growth 1/	34	28	27	26	27	28	36	62
A4. Permanent decline in SACU revenues by 6 percent of GDP starting in 2009 2/	34	31	32	34	37	40	53	68
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2009-2010	34	28	30	31	32	34	43	53
B2. Primary balance is at historical average minus one standard deviations in 2009-2010	34	36	42	41	40	39	36	27
B3. Combination of B1-B2 using one half standard deviation shocks	34	32	35	35	35	36	40	40
B4. One-time 30 percent real depreciation in 2009	34	36	34	32	31	30	28	22
B5. 10 percent of GDP increase in other debt-creating flows in 2009	34	37	34	33	32	32	30	23
PV of Debt-to-Revenue Ratio 3/								
Baseline	53	48	45	41	40	41	42	34
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	53	48	46	46	49	55	59	56
A2. Primary balance is unchanged from 2008	53	40	29	21	16	11	...	...
A3. Permanently lower GDP growth 1/	53	49	47	44	45	48	66	113
A4. Permanent decline in SACU revenues by 6 percent of GDP starting in 2009 2/	53	60	63	64	70	78	108	138
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2009-2010	53	49	52	51	54	60	79	95
B2. Primary balance is at historical average minus one standard deviations in 2009-2010	53	63	74	68	67	69	66	49
B3. Combination of B1-B2 using one half standard deviation shocks	53	55	61	58	60	63	72	73
B4. One-time 30 percent real depreciation in 2009	53	63	58	53	52	53	50	40
B5. 10 percent of GDP increase in other debt-creating flows in 2009	53	64	60	55	54	55	54	41
Debt Service-to-Revenue Ratio 3/								
Baseline	3	4	4	3	3	3	3	3
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	3	4	4	3	3	4	3	5
A2. Primary balance is unchanged from 2008	3	4	3	3	2	2	...	...
A3. Permanently lower GDP growth 1/	3	4	4	3	3	3	4	7
A4. Permanent decline in SACU revenues by 6 percent of GDP starting in 2009 2/	3	4	4	4	4	4	4	6
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2009-2010	3	4	4	4	4	4	4	7
B2. Primary balance is at historical average minus one standard deviations in 2009-2010	3	4	4	5	4	4	4	5
B3. Combination of B1-B2 using one half standard deviation shocks	3	4	4	4	4	4	4	6
B4. One-time 30 percent real depreciation in 2009	3	5	5	5	4	4	4	5
B5. 10 percent of GDP increase in other debt-creating flows in 2009	3	4	4	4	4	4	3	4

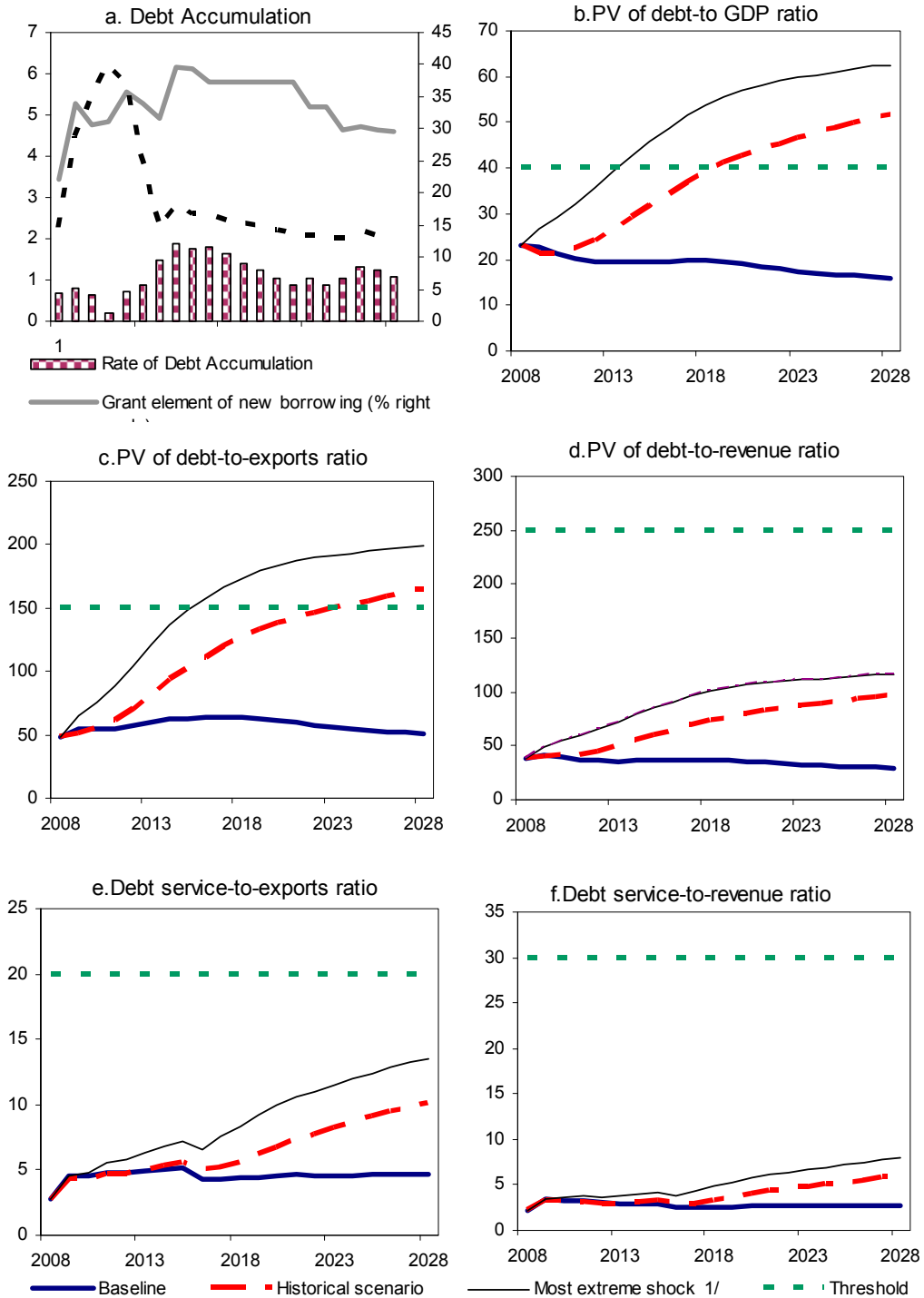
Sources: Lesotho authorities; and Fund staff estimates and projections.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the length of the projection period.

2/ In October 2008, SACU revenue projection was revised down by about 6 percent of GDP which is incorporated in the baseline scenario. The alternative scenario assumes a permanent decline of the same magnitude relative to the baseline for the entire projection period starting in 2009.

3/ Revenues are defined inclusive of grants.

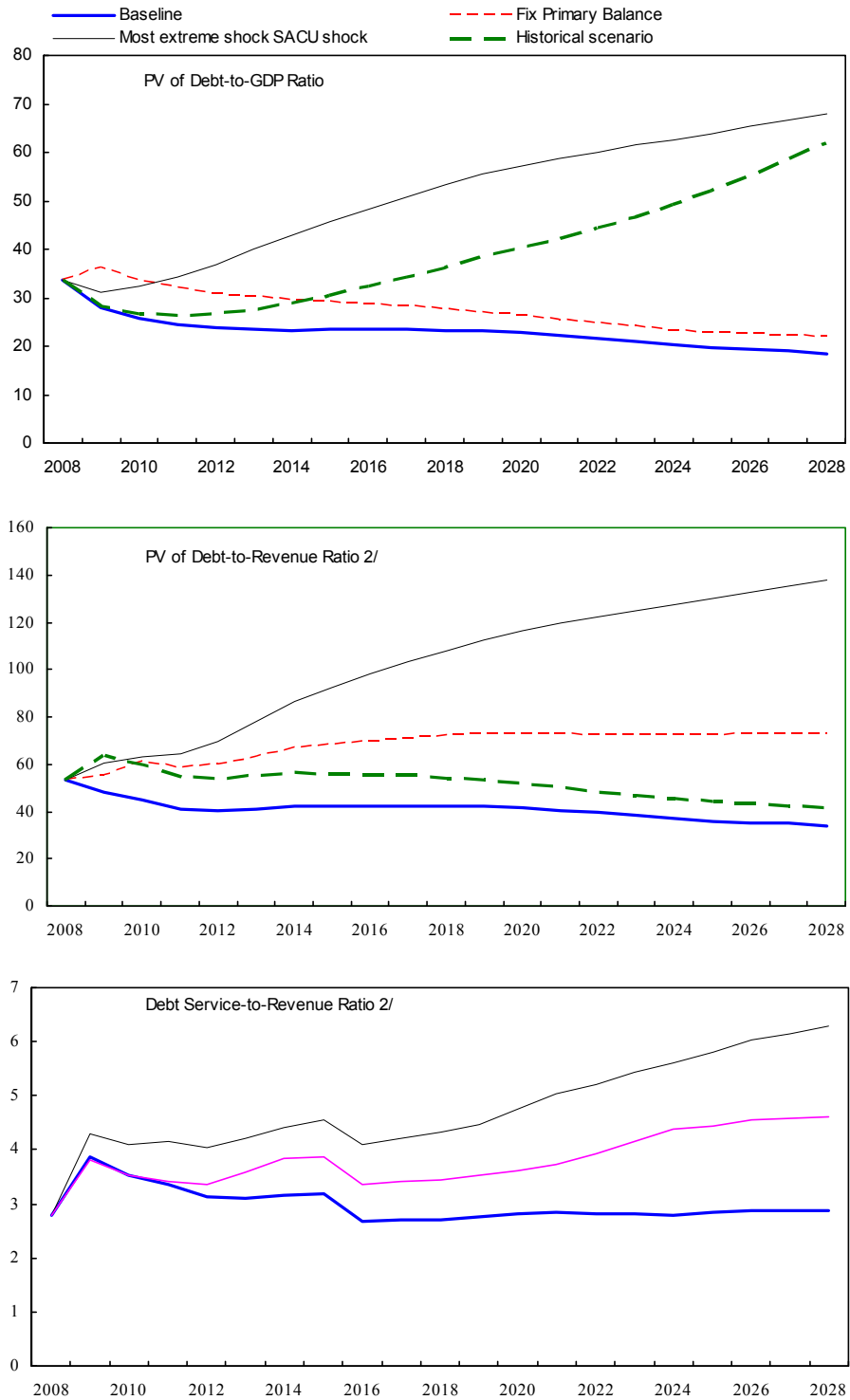
Figure 1. Lesotho: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2008–2028 1/



Source: Staff projections and simulations.

1/ The most extreme stress test is the test that yields the highest ratio in 2018. In all the panels it corresponds to a sustained reduction in SACU revenue.

Figure 2 Lesotho: Indicators of Public Debt Under Alternative Scenarios, 2008–2028 1/



Sources: Lesotho authorities; and Fund staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2018.

2/ Revenues are defined inclusive of grants.