INTERNATIONAL MONETARY FUND AND
INTERNATIONAL DEVELOPMENT ASSOCIATION

CAMEROON

Joint Fund-Bank Debt Sustainability Analysis[1]

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

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The joint IMF-World Bank low-income country debt sustainability analysis (LIC DSA) indicates that Cameroon's risk of debt distress remains classified as low. All external debt ratios remain well below the policy-dependent thresholds under the baseline scenario and the stress tests; public debt indicators also remain at comfortable levels. Strengthening debt management practices, enhancing nonoil revenue mobilization, and widening the export base remains advisable in light of the anticipated long-run decline of oil revenues.

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[1] Prepared by IMF and IDA staffs in collaboration with the Cameroonian authorities. The preliminary results were presented by IMF staff during a seminar organized by the Cameroonian authorities in Yaoundé on April 2, 2009. This DSA reflects comments from government officials and follows the IMF and World Bank Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework for Low-Income Countries, October 9, 2008 (available at http://www.imf.org/external/pp/longres.aspx?id=4297 and http://go.worldbank.org/JBKAT4BH40). The analysis updates the 2008 DSA (IMF Country Report for Cameroon 08/279, available at http://www.imf.org/external/pubs/cat/longres.cfm?sk=22260.0). This DSA is conservatively undertaken on gross (as opposed to net) basis as no data on Cameroon's claim are available.

I. BACKGROUND

1.   **This report updates the debt sustainability analysis (DSA) prepared in 2008 (IMF Country Report No. 08/279).** The baseline scenario reflects the latest IMF Article IV discussions with the authorities (March-April 2009). Since the 2008 DSA, Cameroon has been adversely affected by the global crisis through lower world demand and a drop in prices for commodities. Reduced export for timber, rubber, cotton, and aluminum products and lower oil production and prices have adversely affected GDP growth, with a sizable effect on both, the balance of payments and the fiscal accounts. As a result, the Cameroonian authorities have requested Fund assistance under the Rapid Access Component of the Exogenous Shocks Facility (ESF-RAC) in an amount equivalent to 50 percent of quota (0.6 percent of GDP). This DSA reflects these developments.

2.   **The DSA is based on data provided by Cameroon's main multilateral creditors and by the authorities on the remaining creditors.** The debt data coverage continues to improve. It currently covers central government external debt, public-guaranteed debt, and an annual estimate of domestic debt. Despite efforts to improve debt statistics, the coverage of public enterprises' liabilities, contingent liabilities of financial institutions, and overdue claims of public enterprise and parastatal entities of the government remain uneven.

3.   **Debt relief agreements with bilateral and most commercial creditors have been finalized.** To date, all bilateral agreements with Paris Club and non-Paris Club creditors have been signed. Agreements were also finalized with most London Club commercial creditors, whereby the stock of debt was reduced to US$1.4 million in 2008 compared to US$91.2 million in 2007. Agreements have yet to be finalized with one bank (US$0.5 million) and three nonbank corporations (US$0.9 million). The authorities are making every effort to settle the outstanding debt (0.06 percent of GDP), but are experiencing difficulties in engaging with some creditors either because of a lack of response from them, or because they no longer exist as ongoing commercial entities.

4.   **Cameroon's debt situation has sharply improved in recent years.** Its public debt-to-GDP ratio declined from 51.8 percent in 2005 to 9.8 percent in 2008 (US$2.28 billion), thanks to HIPC and MDRI relief in 2006 and prudent borrowing policies since then (Text Table 1).[2] Since the HIPC Initiative and MDRI debt relief, further decline in external debt has reflected the following: (i) a reduction in net borrowing by public enterprises; (ii) the settlement of most London Club commercial creditors; and (iii) valuation effects due to

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[2] Debt data, after the HIPC and MDRI, exclude the debt service to France under the Debt Settlement and Development Contract (C2D).
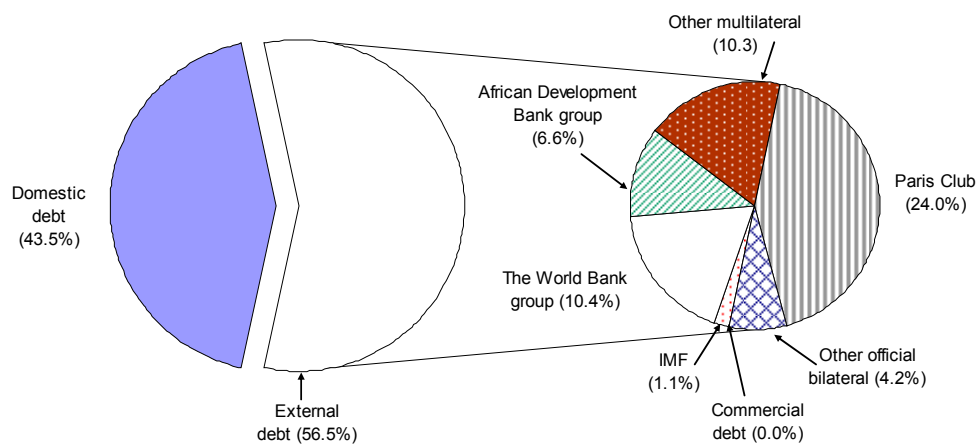
changes in the exchange rate. On domestic debt, substantial repayments were also made possible due to the use of windfall gains from higher-than-expected oil prices in 2008.[3]

Text Table 1. Cameroon: Stock of Public Debt, 2007–08

	Million of US $		Percent of total		Percent of GDP	
	2007	2008	2007	2008	2007	2008
Total	2,450.2	2,281.4	100.0	100.0	11.8	9.8
External	1,173.6	1,290.0	47.9	56.5	5.7	5.6
Domestic	1,276.6	991.4	52.1	43.5	6.2	4.3

Sources: Cameroonian authorities; and Bank-Fund staff estimates.

Figure 1. Cameroon: Public- and Publicly-Guaranteed Debt Structure, End-2008

Other multilateral (10.3)

African Development Bank group (6.6%)

Paris Club (24.0%)

Domestic debt (43.5%)

The World Bank group (10.4%)

IMF (1.1%)

Other official bilateral (4.2%)

Commercial debt (0.0%)

External debt (56.5%)

Sources: Cameroonian authorities; and Bank-Fund staff estimates.

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[3] Domestic debt represents pre-end 2004 domestic arrears that were audited and rescheduled in 2005.

5. **The composition of external public debt is currently skewed toward bilateral debt**. Following HIPC and MDRI debt relief in 2006, the share of bilateral debt increased to 52 percent in 2008 from 47 percent in 2005. As a result, between 2006 and 2008, the concessionality has been slightly lowered (from 41 percent to 39 percent), and the average interest rate has increased (from 1.1 percent to 1.4 percent).

Figure 2. Cameroon: Stock of public debt, 2004–2008
(Percent of GDP)

Sources: Cameroonian authorities; and IMF staff estimates.
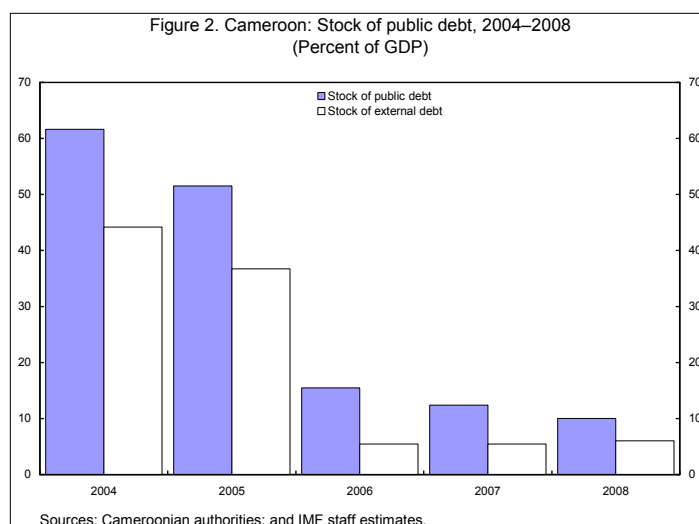
II.   THE DSA BASELINE SCENARIO

6. **The medium- and long-term macroeconomic framework remains broadly unchanged relative to the previous DSA:**

➤ The *international financial crisis and global slowdown* affected adversely several macroeconomic variables, reflecting lower global demand and prices for key exports.

➤ However, *the medium- and long-term macroeconomic framework remains broadly unchanged relative to the previous DSA*. More specifically, real GDP growth is expected to pick up over the medium term, reflecting increased investment and structural reform implementation. The current account deficit is projected to deteriorate over the medium term, but then gradually improve over the longer term. Fiscal policy would be supportive of economic growth and poverty reduction. Over the medium term the nonoil primary balance is expected to deteriorate, reflecting the need to address considerable social and infrastructure needs. New public borrowing is assumed to increase gradually over the medium term to help finance infrastructure investments.

Text Table 2. Cameroon: Key Macroeconomic Assumptions, 2009–29 (updated vs. previous DSA)[1]		
	2009–10	2011–29
Real GDP growth (percent)		
Updated	2.5	5.0
Previous	4.7	5.3
Fiscal revenue (percent of GDP)		
Updated	18.7	17.6
Previous	22.0	18.5
Exports (percent of GDP)		
Updated	22.7	23.6
Previous	26.2	16.1
Oil price (U.S. dollars per barrel)		
Updated	64.5	70.1
Previous	105.1	102.5

Sources: Cameroonian authorities; and
  IMF and World Bank staffs estimates.
[1] Previous DSA covers the period 2008-28.

Box 1. Macroeconomic Assumptions for the Baseline Scenario[4]

Against the backdrop of steady decline in oil production, the baseline annual growth, which is expected to be driven by the nonoil sector, has been revised downward in 2009–10 to about 2½ percent (3.2 percent for the nonoil sector growth), and is expected to increase gradually to 4.2 percent by 2012 on assumptions of increased capital spending and structural reforms in the areas of business climate, provision of public goods and infrastructure, and more efficient public finance management. Longer-term growth is expected to average 5.2 percent for 2015-29, driven by the nonoil sectors (agriculture, mining, and service). Staff projections include several distinct growth episodes. After an initial period of low growth in 2009-10 due to the financial crisis impact on Cameroon, growth is expected to pick up to about 4 percent in 2011-12. Growth is then projected to accelerate further to 5½ to 6 percent in 2013-16 reflecting the impact of envisaged structural reforms over the next 2-3 years aimed at improving transparency, governance, access to financing and a more competitive business environment, as well as new investment in public infrastructure, especially in transportation (including ports) and energy sectors. After 2016, growth would decline gradually to a more moderate range of 4 to 4½ percent, reflecting declining oil production and the weakening growth impact of the initial round of structural reform and investments projected to take place during 2010-13. Domestic investments over the projection period are expected to be sustained by capital inflows.

With the 2008 food and fuel crisis gradually abating, the consumer price-based inflation is expected to ease in 2009 and hold steady at around 2 percent—assuming a slow adjustment from the 2008 peak of over 5 percent but below the CEMAC threshold—over the medium- and long-term, in line with recent historical trend, which is also consistent with the CEMAC convergence criteria.

Government revenues are projected to decline over time as a result of reduced oil proceeds. Non-oil revenues are expected to rise from about 12½ percent of GDP in 2008 to about 16 percent at the end of the projection period, reflecting sustained implementation of measures to strengthen tax and customs administrations. Government expenditures are expected to rise over the medium term to about 19 percent of GDP. This path is consistent with a gradual increase in capital expenditure over the medium term, control of current spending growth, and a rise in pro-poor spending. The latter is also assumed to be achieved by improvements in public financial management, including expenditure allocation in priority areas.

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[4] Estimates and projections are in CFA francs unless otherwise indicated. The baseline is consistent with the latest IMF *World Economic Outlook* assumptions and projections.

Box 1. (Concluded) Macroeconomic Assumptions for the Baseline Scenario

Current account deficit, including grants, is expected to rise in 2009-16 and narrow down gradually afterwards by 2019. Overall exports are expected to decline in 2009-10, reflecting lower external demand. The rate of growth of the nonoil export volume (rubber, cotton, cocoa, coffee, and timber) is projected to remain high (7.7 percent in 2011–29), offsetting petroleum exports gradual decline. Import volumes are projected to increase (by 5.4 percent overall and 5.1 percent for nonoil), as the acceleration of growth in 2011-16 would be associated with imports of equipment and intermediate goods. The current account deficit is expected to be financed through foreign direct investment and loans, a mixture of which will be from IDA and the rest from other creditors on less concessional terms.
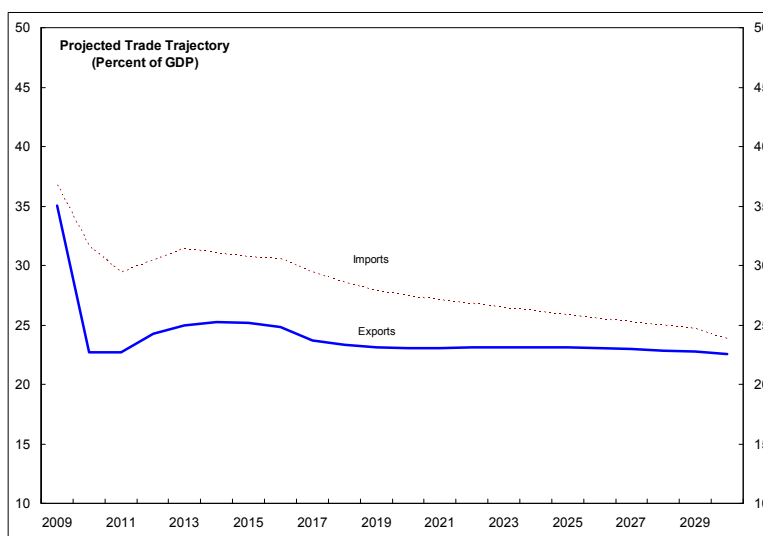
External borrowing is expected to rise gradually to about 1.1 percent of GDP in 2009-11 (compared to an average of 0.8 percent of GDP during 2001-08). IDA borrowing is assumed to constitute 17 percent of new borrowing per year, with the remainder originating from other multilateral and bilateral creditors on less concessional terms. Assuming that Cameroon will cross the IDA-only threshold in 2015, disbursements from the Bank will also be on less concessional terms.

III. EXTERNAL DEBT SUSTAINABILITY

Baseline Scenario

7.   **The analysis is guided by indicative, performance-based debt burden thresholds for external debt.** The LIC debt sustainability framework (DSF) is guided by country-specific debt burden thresholds based on the strength of a country's policies and institutions. These thresholds reflect the empirical findings that sustainable debt levels for a low-income country increase with the quality of its policies and institutions. Such quality is measured by the Country Policy and Institutional Assessment (CPIA) index, compiled annually by the

World Bank. Cameroon now ranks as a 'weak performer' under the joint IMF/World Bank debt sustainability framework, based on its three-year moving average CPIA score.[5] The indicative external debt burden thresholds for countries in this category are a PV of debt-to-exports ratio of 100 percent, PV of debt-to-revenue ratio of 200 percent, a PV of debt-to-GDP ratio of 30 percent, and debt-service-to-exports and revenues ratios of 15 and 25 percent, respectively.

8.   **Cameroon 's external debt appears sustainable. Under the baseline scenario, all debt indicators remain below their thresholds through 2029.**

➢ Text Table 3 and Figure 3 show that all external debt ratios remain below their thresholds. The pace of increase of the PV of debt-to-exports ratio is projected to be steeper because oil exports, an important component of Cameroon's total export, are declining. The

Text Table 3. Cameroon: Baseline Debt Ratios, 2009–29				
	Thres-hold		Medium term	Long run
		2009	2009–14	2015–29
External				
PV of debt-to GDP	30.0	4.8	5.4	7.0
PV of debt-to-exports	100.0	21.3	22.4	30.4
PV of debt-to-revenue	200.0	26.6	29.5	41.2
Debt service-to-exports	15.0	1.5	1.3	1.7
Debt service-to-revenue	25.0	1.8	1.7	2.2
Fiscal				
PV of debt-to-GDP		9.7	10.1	11.1
PV of debt-to-revenue		50.8	53.1	64.3
Debt service-to-revenue		6.6	9.4	10.6

gradual and moderate rise in the PV of debt-to-exports ratio reflects the assumption that Cameroon's borrowing policy will continue to be prudent**.**

➢ The baseline scenario assumes concessional external borrowing (including the ESF-RAC) to help fill the financing gaps associated with the global slowdown. Repayment could cluster in 2014 as debt contracted in 2009 and 2010 matures. Figure 3 shows that debt service ratios would peak in 2014–15 but the debt situation would still be manageable.

Alternative Scenario and Stress Tests

9.   **Alternative scenarios and bound tests show that debt indicators remain below their thresholds through 2029.**

➢ In the scenario where new borrowing occurs on less concessional terms, which assumes

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[5] Cameroon's CPIA declined from 3.3 to 3.2 between 2005 and 2006 and remained at that level in 2007, thus the average CPIA rating for Cameroon for the last three years is 3.25—the rating for weak performers . The downgrade is the result of a deterioration in the following criteria: business regulatory environment; policies and institutions for environmental sustainability; structural policy cluster; and efficiency of revenue mobilization.

that the interest rate on new borrowing through 2029 is 2 percentage points higher than in the baseline, all debt ratios do deteriorate but stay below the thresholds. Deviations from the baseline occur as repayments cluster.

➢ The historical average scenario, which is associated with past current account surpluses, is unlikely to occur, as oil production is expected to taper off in the next 20 years. This scenario shows a more optimistic debt ratio trajectory relative to the baseline. Thus, in terms of the risk assessment the historic scenario is irrelevant and, as such, is therefore omitted from Figure 3.

➢ Bound tests, including a one-time 30 percent depreciation, lead to similar conclusions. The scenario of real GDP at the historical average minus one standard deviation in 2010-11, which implies 0.7 percentage point above the baseline projection, suggests that government would close the implied financing need by borrowing at similar conditions as in the baseline. As a result, the PV of debt-to-GDP ratio starts rising moderately over time and eventually levels off. However, the scenario where exports grow at the historical average minus one standard deviation in 2010-11, suggests a more pronounced shift in debt burden, and the PV of external debt reaches 94 percent of GDP in 2029 (below its threshold of 100 percent).

IV.   PUBLIC SECTOR DEBT SUSTAINABILITY[6]

10.   **The DSA shows that public debt sustainability will be preserved.** The nonoil primary deficit is expected to deteriorate over the medium term in support of the country's development needs. New borrowing will amount to about 1 percent of GDP annually during 2009-16, consistent with the country's absorption capacity and will then gradually decline over the long term.[7] In the baseline scenario, the debt ratio will rise gradually over the long-term. The PV of debt-to-GDP and debt-to-revenue ratios is expected to rise over time, with some reduction in outer years. Debt service will follow a similar pattern and stay at a comfortable level through 2029.

11.   **Stress tests indicate that all debt indicators** (PV of debt-to-revenue ratio, PV of debt-to-revenue ratio, and debt service-to-revenue ratio) **remain on stable paths and do not reveal particular vulnerabilities**. However, the scenario of a contingent liability shock amounting to 10 percent of GDP shows some more sensitive debt dynamic relative to the baseline.

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[6] The historical average scenario, which is associated with past primary surpluses, is unlikely to occur, as oil production is expected to taper off in the next 20 years. This scenario shows a more optimistic debt ratio trajectory relative to the baseline.

[7] Insufficient institutional and administrative capacity has so far kept Cameroon from scaling up foreign-financed investment above 0.5 to 1 percentage point of GDP annually.

12.   **Despite its low risk of debt distress, Cameroon has stepped up efforts to strengthen its debt management framework**. Following joint Bank-Fund technical assistance, the authorities are working to implement a new debt management strategy aligned with CEMAC guidelines. The authorities have themselves started producing a DSA and are formulating a medium-term debt management strategy (MTDS) for central government debt, using the Bank-Fund toolkit.

V. CONCLUSION

13.   **Cameroon's risk of debt distress remains low.** All external debt ratios remain well below the policy-dependent thresholds. However, because of the global financial crisis and economic slowdown, debt indicators are somewhat higher than in the 2008 DSA. Debt indicators rise under alternative scenario and bound tests, but not beyond country-specific debt burden thresholds, when assessing external sustainability, and remain at a comfortable level in regards to public debt sustainability.

14.   **However, persistent weakness in public finance management and insufficient data coverage remain areas of vulnerability in Cameroon's assessment.** In particular, these vulnerabilities refer to quasi-fiscal liabilities of state-owned enterprises and a possible build up of new arrears since the 2005 audit, for which available information is limited. The authorities' efforts to improve debt management could be reinforced by steps to ensure better coverage of public sector liabilities and by a new audit to clarify whether new domestic arrears have emerged since 2005. In addition, continued efforts to achieve greater nonoil revenue mobilization and to widen the export base would be advisable, given the expected long-run decline in oil revenue.

Figure 3. Cameroon: Indicators of Public- and Publicly-Guaranteed External
Debt under Alternatives Scenarios, 2009-2029 1/
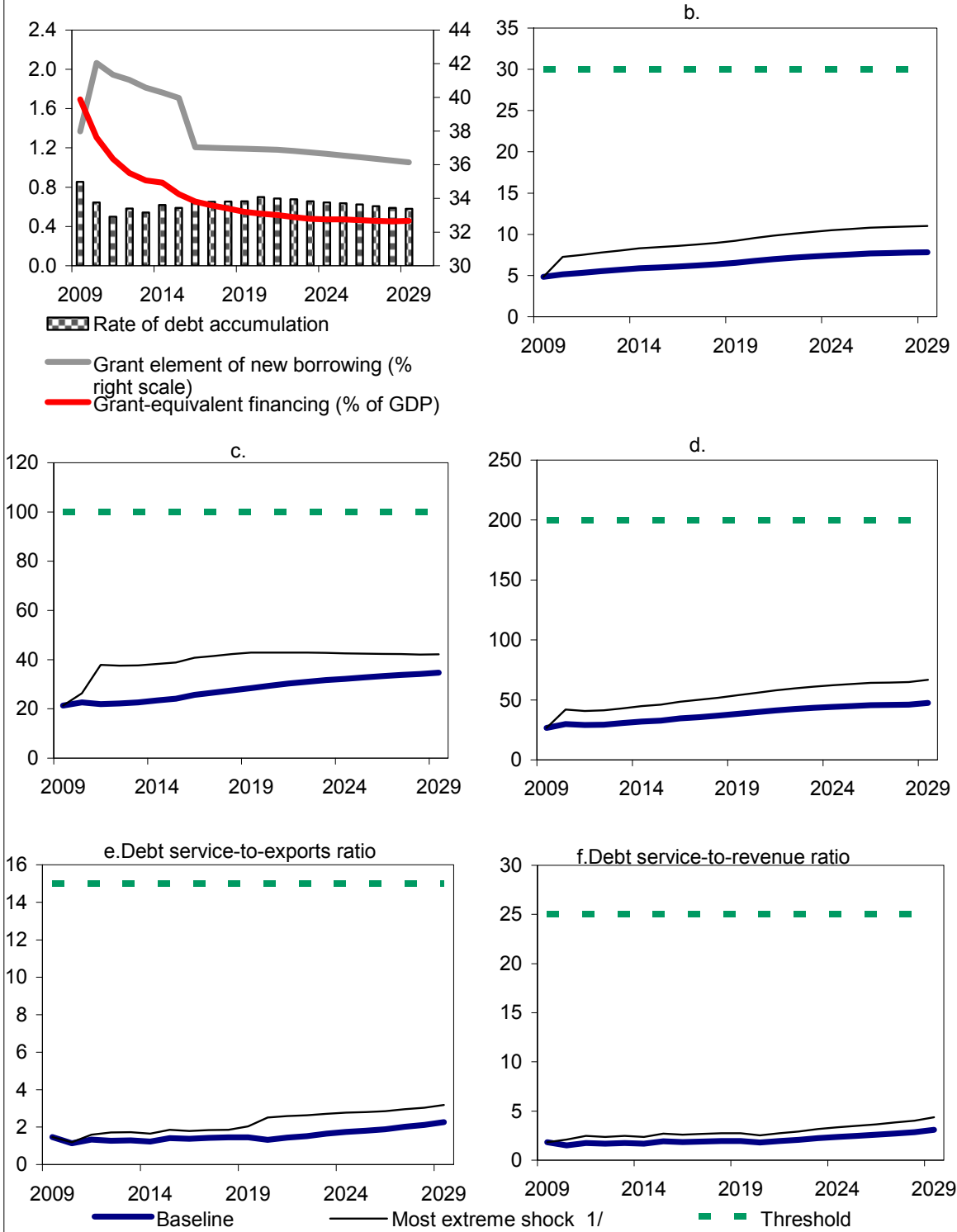
Source: Staff projections and simulations.

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 an Exports shock and in Figure (f) to a One-time depreciation shock.

Figure 4. Cameroon: Indicators of Public Debt Under Alternative Scenarios, 2009-2029 1/

| —— Baseline ······ Most extreme shock Non-debt flows |

PV of Debt-to-GDP Ratio

PV of Debt-to-Revenue Ratio 2/

Debt Service-to-Revenue Ratio 2/
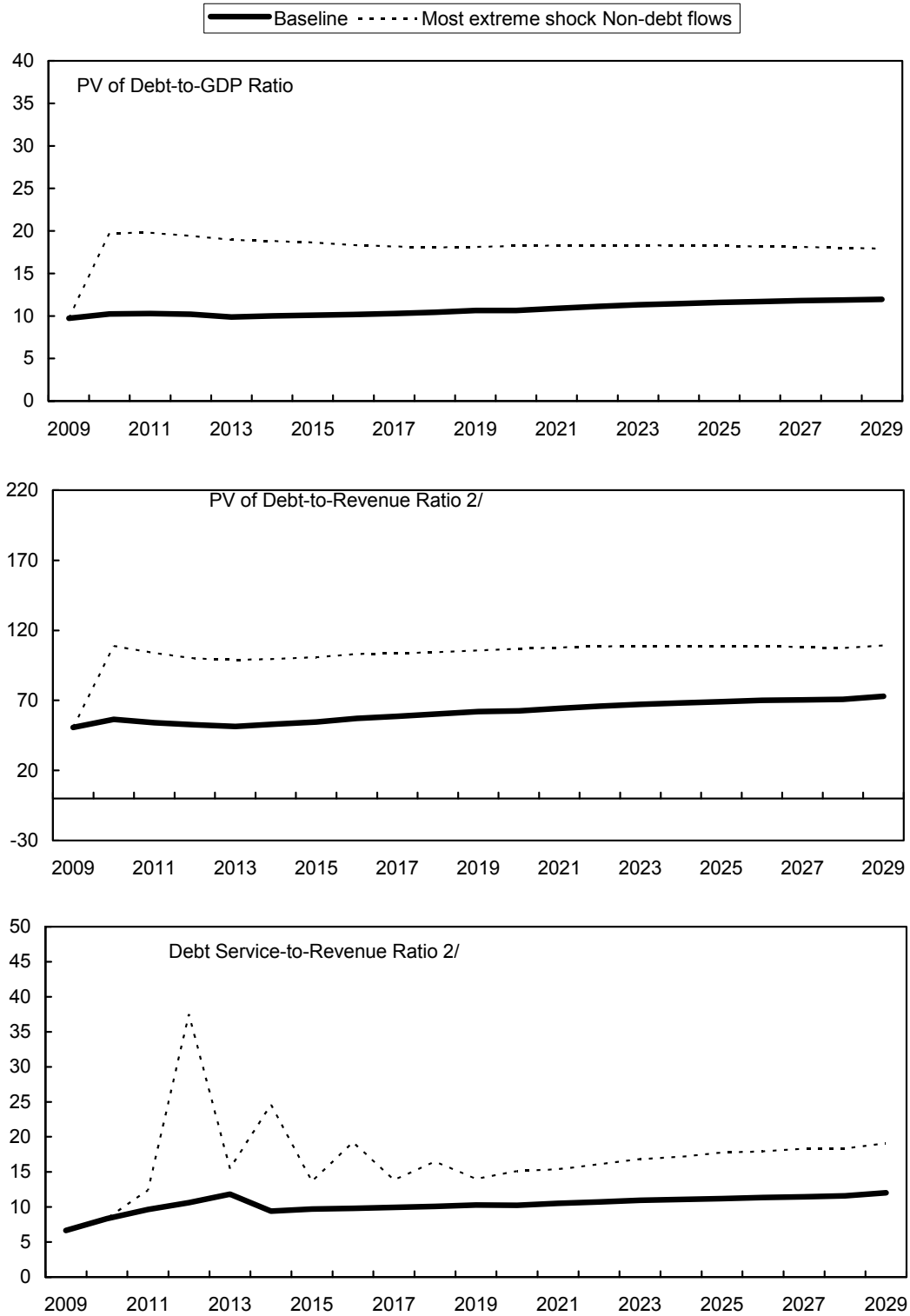
Sources: Country authorities; and Fund staff estimates and projections.
 1/ The most extreme stress test is the test that yields the highest ratio in 2019.
 2/ Revenues are defined inclusive of grants.

Table 1a.Cameroon: Public Sector Debt Sustainability Framework, Baseline Scenario, 2006–29
(In percent of GDP, unless otherwise indicated)

	Actual			1999-2008 Average	Standard Deviation	Estimate	Projections						2009-14 Average			2015-29 Average
	2006	2007	2008			2009	2010	2011	2012	2013	2014		2019	2029	
Public sector debt 1/	15.7	11.8	9.8			12.4	13.1	13.2	13.3	13.0	13.2		13.8	14.9	
o/w foreign-currency denominated	6.3	5.6	5.5			7.5	8.0	8.3	8.6	8.8	9.1		9.7	10.8	
Change in public sector debt	-36.1	-3.9	-2.0			2.6	0.7	0.1	0.0	-0.3	0.2		0.2	0.0	
Identified debt-creating flows	-39.2	-8.8	-5.0			-2.4	-2.1	-2.7	-2.6	-2.1	-1.8		0.4	0.7	
Primary deficit	-33.6	-4.7	-1.5	-6.6	9.6	-0.7	0.3	-0.7	-0.9	-0.5	-0.2	-0.5	1.6	1.4	1.5
Revenue and grants	47.6	20.0	21.3			19.2	18.1	19.1	19.4	19.1	18.9		17.3	16.6	
of which: grants	28.4	1.2	0.9			1.0	0.8	0.7	0.5	0.5	0.4		0.2	0.1	
Primary (noninterest) expenditure	14.0	15.3	19.8			18.5	18.4	18.4	18.5	18.6	18.7		18.9	18.0	
Automatic debt dynamics	-3.8	-1.1	-0.8			0.7	-0.4	-0.5	-0.5	-0.5	-0.6		-0.5	-0.6	
Contribution from interest rate/growth differential	-2.7	-0.6	-0.5			0.0	-0.2	-0.4	-0.4	-0.5	-0.5		-0.5	0.1	
of which: contribution from average real interest rate	-1.1	-0.1	-0.1			0.3	0.1	0.1	0.1	0.1	0.1		0.1	0.7	
of which: contribution from real GDP growth	-1.6	-0.5	-0.4			-0.2	-0.3	-0.5	-0.5	-0.6	-0.6		-0.6	-0.6	
Contribution from real exchange rate depreciation	-1.1	-0.5	-0.3			0.7	-0.2	-0.1	0.0	0.0	0.0		...	...	
Other identified debt-creating flows	-1.8	-3.0	-2.7			-2.4	-2.0	-1.6	-1.2	-1.1	-1.0		-0.7	-0.1	
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)	-1.8	-3.0	-2.7			-2.4	-2.0	-1.6	-1.2	-1.1	-1.0		-0.7	-0.1	
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	3.1	4.8	3.0			5.1	2.8	2.9	2.6	1.8	2.0		-0.1	-0.7	
Other Sustainability Indicators															
PV of public sector debt	9.4	6.1	7.8			9.7	10.2	10.3	10.2	9.9	10.0		10.6	12.0	
o/w foreign-currency denominated	0.0	0.0	3.6			4.8	5.1	5.3	5.5	5.7	5.9		6.6	7.8	
o/w external	...	...	3.6			4.8	5.1	5.3	5.5	5.7	5.9		6.6	7.8	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	-28.3	-2.2	0.4			0.6	1.8	1.2	1.1	1.8	1.5		3.3	3.4	
PV of public sector debt-to-revenue and grants ratio (in percent)	19.8	30.6	36.7			50.8	56.5	54.0	52.5	51.6	53.0		61.5	72.2	
PV of public sector debt-to-revenue ratio (in percent)	49.0	32.6	38.3			53.7	59.2	56.1	54.0	52.9	54.3		62.1	72.4	
o/w external 3/	...	...	17.5			26.5	29.8	29.0	29.3	30.6	31.9		38.2	47.4	
Debt service-to-revenue and grants ratio (in percent) 4/	11.1	12.5	8.9			6.6	8.3	9.6	10.6	11.9	9.4		10.2	11.9	
Debt service-to-revenue ratio (in percent) 4/	27.5	13.3	9.2			7.0	8.7	10.0	10.9	12.2	9.6		10.3	11.9	
Primary deficit that stabilizes the debt-to-GDP ratio	2.5	-0.7	0.5			-3.4	-0.4	-0.8	-1.0	-0.2	-0.5		1.3	1.4	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	3.2	3.5	3.4	3.6	1.0	2.4	2.6	4.0	4.2	4.5	5.2	3.8	5.0	4.5	5.2
Average nominal interest rate on forex debt (in percent)	1.1	1.4	1.4	3.1	2.0	1.7	1.2	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4
Average real interest rate on domestic debt (in percent)	-2.7	-0.5	-0.7	-0.6	1.8	5.4	0.7	1.9	2.5	3.1	3.7	2.9	3.9	3.5	3.8
Real exchange rate depreciation (in percent, + indicates depreciation)	-3.0	-7.6	-5.6	-6.0	3.9	12.6	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	3.9	2.1	1.5	2.4	1.7	-3.3	2.4	2.0	2.0	2.0	2.1	1.2	2.0	2.3	2.0
Growth of real primary spending (deflated by GDP deflator, in percent)	0.0	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	38.0	42.0	41.4	41.0	40.6	40.3	40.5	37.0	36.1	...

Sources: Country authorities; and Fund staff estimates and projections.
1/ Central government excluding C2D (in gross basis).
2/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.
3/ Revenues excluding grants.
4/ Debt service is defined as the sum of interest and amortization of medium and long-term debt.

Table 2a.Cameroon: Sensitivity Analysis for Key Indicators of Public Debt, 2009–29

				Projections				
	2009	2010	2011	2012	2013	2014	2019	2029
PV of Debt-to-GDP Ratio								
Baseline	10	10	10	10	10	10	11	12
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	10	8	7	5	4	2	0	0
A2. Primary balance is unchanged from 2009	10	9	9	9	9	9	1	0
A3. Permanently lower GDP growth[1]	10	10	10	10	10	11	13	18
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	10	10	11	11	11	11	13	16
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	10	7	5	5	5	5	7	9
B3. Combination of B1-B2 using one half standard deviation shocks	10	7	4	5	4	5	7	9
B4. One-time 30 percent real depreciation in 2010	10	12	12	12	11	11	11	13
B5. 10 percent of GDP increase in other debt-creating flows in 2010	10	20	20	19	19	19	18	18
PV of Debt-to-Revenue Ratio[2]								
Baseline	51	56	54	53	52	53	62	72
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	51	43	35	28	20	13	0	0
A2. Primary balance is unchanged from 2009	51	51	49	49	47	46	8	0
A3. Permanently lower GDP growth[1]	51	57	55	54	54	56	73	111
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	51	57	56	56	56	59	73	94
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	51	40	28	28	27	29	39	54
B3. Combination of B1-B2 using one half standard deviation shocks	51	37	23	23	23	25	38	56
B4. One-time 30 percent real depreciation in 2010	51	67	63	60	59	59	66	77
B5. 10 percent of GDP increase in other debt-creating flows in 2010	51	109	104	100	99	100	105	108
Debt Service-to-Revenue Ratio[2]								
Baseline	7	8	10	11	12	9	10	12
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	7	8	9	4	7	2	0	0
A2. Primary balance is unchanged from 2009	7	8	9	8	11	8	1	0
A3. Permanently lower GDP growth[1]	7	8	10	11	12	10	12	18
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	7	8	10	11	13	10	12	15
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	7	8	9	2	5	4	8	8
B3. Combination of B1-B2 using one half standard deviation shocks	7	8	9	0	4	3	8	9
B4. One-time 30 percent real depreciation in 2010	7	9	10	11	13	11	12	16
B5. 10 percent of GDP increase in other debt-creating flows in 2010	7	8	12	38	16	25	14	19
Debt Service-to-GDP Ratio								
Baseline	1	2	2	2	2	2	2	2
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	1	1	2	1	1	0	0	0
A2. Primary balance is unchanged from 2006	1	2	2	2	2	2	0	0
A3. Permanently lower GDP growth[1]	1	2	2	2	2	2	2	3
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2008-2009	1	2	2	2	2	2	2	3
B2. Primary balance is at historical average minus one standard deviations in 2008-2009	1	2	2	0	1	1	1	1
B3. Combination of B1-B2 using one half standard deviation shocks	1	1	2	0	1	1	1	1
B4. One-time 30 percent real depreciation in 2008	1	2	2	2	2	2	2	3
B5. 10 percent of GDP increase in other debt-creating flows in 2008	1	2	2	7	3	5	2	3

Sources: Country 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/ Revenues are defined inclusive of grants.

Table 3a.: External Debt Sustainability Framework, Baseline Scenario, 2006–29[1]
(In percent of GDP, unless otherwise indicated)

	Actual			1999–2008 Average	Standard Deviation	Projections						2009-2014 Average	2019	2029	2015-2029 Average
	2006	2007	2008			2009	2010	2011	2012	2013	2014				
External debt (nominal) [1]	**6.3**	**5.6**	**5.5**			**7.5**	**8.0**	**8.3**	**8.6**	**8.8**	**9.1**		**9.7**	**10.8**	
o/w public and publicly guaranteed (PPG)	6.3	5.6	5.5			7.5	8.0	8.3	8.6	8.8	9.1		9.7	10.8	
Change in external debt	-31.4	-0.6	-0.1			2.0	0.5	0.3	0.4	0.2	0.2		0.2	0.0	
Identified net debt-creating flows	-4.2	-0.9	0.0			4.8	3.1	2.4	2.1	2.1	1.9		1.6	0.0	
Non-interest current account deficit	**-1.0**	**0.7**	**1.0**	**1.5**	**1.5**	**5.8**	**4.1**	**3.5**	**3.2**	**3.1**	**3.0**		**2.5**	**0.7**	1.9
Deficit in balance of goods and services	1.2	1.6	1.8			8.9	6.7	6.2	6.4	5.8	5.5		4.4	1.3	
Exports	28.1	32.7	35.0			22.7	22.7	24.2	25.0	25.2	25.1		23.1	22.6	
Imports	29.3	34.3	36.8			31.6	29.4	30.4	31.4	31.0	30.7		27.5	23.9	
Net current transfers (negative = inflow)	-1.4	-2.0	-1.8	-1.5	0.4	-1.7	-1.9	-2.1	-2.3	-2.2	-2.1		-1.5	-0.8	-1.3
o/w official	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other current account flows (negative = net inflow)	-0.7	1.1	0.9			-1.4	-0.7	-0.6	-0.9	-0.4	-0.4		-0.4	0.1	
Net FDI (negative = inflow)	**-0.7**	**-0.8**	**-0.4**	**-0.3**	**0.3**	**-1.0**	**-0.9**	**-0.9**	**-0.8**	**-0.8**	**-0.8**		**-0.6**	**-0.3**	-0.5
Endogenous debt dynamics [2]	**-2.5**	**-0.8**	**-0.5**			**0.0**	**-0.1**	**-0.2**	**-0.2**	**-0.2**	**-0.3**		**-0.3**	**-0.3**	
Contribution from nominal interest rate	0.4	0.1	0.1			0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	
Contribution from real GDP growth	-1.1	-0.2	-0.2			-0.1	-0.2	-0.3	-0.3	-0.4	-0.4		-0.4	-0.5	
Contribution from price and exchange rate changes	-1.7	-0.6	-0.4			…	…	…	…	…	…		…	…	
Residual (3-4) [3]	**-27.2**	**0.3**	**-0.1**	**-4.9**	**10.0**	**-2.8**	**-2.6**	**-2.1**	**-1.8**	**-1.8**	**-1.7**	-2.1	**-1.4**	**0.0**	-0.9
o/w exceptional financing	-1.0	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]	…	…	3.6			4.8	5.2	5.3	5.5	5.7	5.9		6.5	7.8	
In percent of exports	…	…	10.2			21.3	22.7	21.9	22.2	22.6	23.4		28.4	34.7	
PV of PPG external debt	**…**	**…**	**3.6**			**4.8**	**5.2**	**5.3**	**5.5**	**5.7**	**5.9**		**6.5**	**7.8**	
In percent of exports	**…**	**…**	**10.2**			**21.3**	**22.7**	**21.9**	**22.2**	**22.6**	**23.4**		**28.4**	**34.7**	
In percent of government revenues	**…**	**…**	**17.5**			**26.6**	**29.8**	**29.0**	**29.3**	**30.6**	**31.9**		**38.2**	**47.4**	
Debt service-to-exports ratio (in percent)	**5.2**	**0.8**	**0.7**			**1.5**	**1.1**	**1.3**	**1.3**	**1.3**	**1.2**		**1.5**	**2.3**	
PPG debt service-to-exports ratio (in percent)	**5.2**	**0.8**	**0.7**			**1.5**	**1.1**	**1.3**	**1.3**	**1.3**	**1.2**		**1.5**	**2.3**	
PPG debt service-to-revenue ratio (in percent)	**7.6**	**1.4**	**1.2**			**1.8**	**1.5**	**1.8**	**1.7**	**1.8**	**1.7**		**2.0**	**3.1**	
Total gross financing need (Billions of U.S. dollars)	0.0	0.0	0.2			1.1	0.8	0.7	0.7	0.7	0.7		1.0	0.7	
Non-interest current account deficit that stabilizes debt ratio	30.4	1.3	1.1			3.8	3.6	3.2	2.8	2.9	2.8		2.3	0.7	
Key macroeconomic assumptions															
Real GDP growth (in percent)	3.2	3.5	3.4	3.6	1.0	2.4	2.6	4.0	4.2	4.5	5.2	3.8	5.0	4.5	5.2
GDP deflator in US dollar terms (change in percent)	4.8	11.3	8.6	5.5	8.5	-10.7	3.6	2.2	2.1	2.0	2.1	0.2	2.0	2.3	2.0
Effective interest rate (percent) [5]	1.1	1.4	1.4	3.1	2.0	1.7	1.2	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4
Growth of exports of G&S (US dollar terms, in percent)	24.4	33.8	20.4	14.2	12.0	-40.6	6.5	13.3	9.8	7.7	7.1	0.6	6.9	5.8	6.6
Growth of imports of G&S (US dollar terms, in percent)	7.3	34.8	20.6	12.3	9.4	-21.3	-1.0	10.0	9.8	5.4	6.2	1.5	5.5	3.5	5.5
Grant element of new public sector borrowing (in percent)	…	…	…	…	…	38.0	42.0	41.4	41.0	40.6	40.3	40.5	37.0	36.1	36.9
Government revenues (excluding grants, in percent of GDP)	19.3	18.8	20.4			18.1	17.3	18.4	18.9	18.7	18.5		17.1	16.5	17.1
Aid flows (in Billions of US dollars) [6]	5.1	0.2	0.2			0.4	0.4	0.3	0.3	0.3	0.3		0.4	0.7	
o/w Grants	5.1	0.2	0.2			0.2	0.2	0.2	0.1	0.1	0.1		0.1	0.1	
o/w Concessional loans	0.0	0.0	0.0			0.2	0.2	0.2	0.2	0.2	0.2		0.3	0.6	
Grant-equivalent financing (in percent of GDP) [7]	…	…	…			1.7	1.3	1.1	0.9	0.9	0.8		0.5	0.5	0.5
Grant-equivalent financing (in percent of external financing)	…	…	…			61.7	67.2	66.4	60.6	60.1	57.6		45.7	39.9	44.3
Memorandum items:															
Nominal GDP (Billions of US dollars)	18.0	20.7	23.2			21.3	22.6	24.1	25.6	27.3	29.3		43.4	84.6	
Nominal dollar GDP growth	8.2	15.2	12.3			-8.5	6.4	6.3	6.4	6.6	7.4	4.1	7.1	6.9	7.3
PV of PPG external debt (in Billions of US dollars)			0.8			1.0	1.2	1.3	1.4	1.6	1.7		2.8	6.6	
(PVt-PVt-1)/GDPt-1 (in percent)						0.9	0.6	0.5	0.6	0.5	0.6	0.6	0.7	0.6	0.6

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] For 2009-2014, includes mostly changes in gross foreign assets and other valuation effects and contributions from prices. Marginal changes in the outer years include also exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

[4] Assumes that PV of private sector debt is equivalent to its face value.

[5] Current-year interest payments divided by previous period debt stock.

[6] Defined as grants, concessional loans, and debt relief.

[7] Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

Table 3b.Cameroon: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2009–29
(In percent)

	Projections							
	2009	2010	2011	2012	2013	2014	**2019**	2029
PV of debt-to GDP ratio								
Baseline	5	5	5	6	6	6	**7**	8
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029[1]	5	5	5	5	6	6	**7**	**17**
A2. New public sector loans on less favorable terms in 2009-2029[2]	5	5	5	6	6	6	**7**	8
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	5	5	5	6	6	6	**7**	8
B2. Export value growth at historical average minus one standard deviation in 2010-2011[3]	5	6	8	8	8	8	**9**	8
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	5	6	6	6	6	7	**7**	9
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011[4]	5	6	8	8	8	8	**8**	8
B5. Combination of B1-B4 using one-half standard deviation shocks	5	6	8	8	8	8	**8**	8
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010[5]	5	7	7	8	8	8	**9**	11
PV of debt-to-exports ratio								
Baseline	21	23	22	22	23	23	**28**	35
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	21	21	20	21	22	24	**32**	74
A2. New public sector loans on less favorable terms in 2009-2029 2	21	23	22	22	23	24	**28**	35
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	21	23	22	22	23	23	**28**	35
B2. Export value growth at historical average minus one standard deviation in 2010-2011[3]	21	26	38	38	38	38	**43**	42
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	21	23	22	22	23	23	**28**	35
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011[4]	21	28	32	31	31	32	**39**	38
B5. Combination of B1-B4 using one-half standard deviation shocks	21	25	32	32	32	32	**37**	37
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010[5]	21	23	22	22	23	23	**28**	35
PV of debt-to-revenue ratio								
Baseline	27	30	29	29	31	32	**38**	47
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	27	27	26	28	30	32	**43**	102
A2. New public sector loans on less favorable terms in 2009-2029 2	27	30	29	29	31	32	**38**	48
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	27	30	29	30	31	32	**39**	48
B2. Export value growth at historical average minus one standard deviation in 2010-2011[3]	27	33	43	43	44	45	**50**	50
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	27	32	33	33	34	36	**43**	53
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011[4]	27	36	42	41	43	44	**48**	48
B5. Combination of B1-B4 using one-half standard deviation shocks	27	34	42	42	43	44	**49**	51
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010[5]	27	42	41	41	43	45	**54**	67

Table 3b.Cameroon: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2009–29 (continued)
(In percent)

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029

Debt service-to-exports ratio

Baseline	1	1	1	1	1	1	**1**	2
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029[1]	1	1	1	1	1	1	**1**	3
A2. New public sector loans on less favorable terms in 2009-2029[2]	1	1	1	1	1	1	**2**	2
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	1	1	1	1	1	1	**1**	2
B2. Export value growth at historical average minus one standard deviation in 2010-2011[3]	1	1	2	2	2	2	**2**	3
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	1	1	1	1	1	1	**1**	2
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011[4]	1	1	1	1	1	1	**2**	3
B5. Combination of B1-B4 using one-half standard deviation shocks	1	1	1	1	2	1	**2**	3
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010[5]	1	1	1	1	1	1	**1**	2

Debt service-to-revenue ratio

Baseline	2	1	2	2	2	2	**2**	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029[1]	2	1	2	2	2	2	**2**	4
A2. New public sector loans on less favorable terms in 2009-2029[2]	2	1	2	2	2	2	**2**	2
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	2	1	2	2	2	2	**2**	3
B2. Export value growth at historical average minus one standard deviation in 2010-2011[3]	2	1	2	2	2	2	**2**	4
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	2	2	2	2	2	2	**2**	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011[4]	2	1	2	2	2	2	**2**	4
B5. Combination of B1-B4 using one-half standard deviation shocks	2	2	2	2	2	2	**2**	4
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010[5]	2	2	2	2	2	2	**3**	4
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline)[6]	37	37	37	37	37	37	**37**	37

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.