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STAFF REPORT FOR THE 2013 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

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The present debt sustainability analysis updates the analysis conducted at the time of the 2012 Article IV Consultation (Country Report No. 12/237, August 2012). It finds that the level of debt distress remains low, as all debt indicators are well below their respective policy-dependent thresholds. The underlying macroeconomic assumptions used in this analysis are somewhat different from the ones used in the previous analysis. Projected oil revenue is higher, but growth and export prospects are less favorable in the short and medium terms. As the government intends to increase its debt in response to the large financing need of the country's ambitious public investment program, heavier borrowing could jeopardize sustainability over the long term and calls for a prudent approach regarding the terms of borrowing.

BACKGROUND

1. This debt sustainability analysis (DSA) was prepared jointly by the International Monetary Fund (IMF) and the World Bank, and updates the 2012 DSA of Cameroon (IMF Country Report No. 12/237, August 2012).[38] It uses the standard debt dynamic template for low-income countries, based on end-2012 data, and the macroeconomic framework resulting from discussions with the Cameroonian authorities during the 2013 IMF Article IV consultation. Data are composed of external and domestic debt of the central government and debt and guaranteed debt of public enterprises. Efforts continue to be made in improving debt statistics and analysis, but, as noted in the previous DSA, debt statistics could benefit from a more comprehensive coverage of liabilities of public enterprises and municipalities, contingent liabilities of financial institutions, and government obligations to state-owned entities.

2. The Heavily Indebted Poor Countries and the Multilateral Debt Relief Initiatives resulted in a significant reduction in Cameroon's public debt ratios, from more than 50 percent of GDP in 2005 to less than 10 percent of GDP in 2008. However, the public debt-to-GDP ratio has been steadily increasing since then, reaching about 16 percent in 2012 (Tables 1-3a). This increase mainly corresponds to a rise in public external debt (Text Table 1). Public external debt is still dominated by multilateral debt, representing 31.3 percent of total public debt in 2012, but bilateral loans, especially loans from non-Paris club members, have significantly grown in proportion, representing 16.1 percent of total public debt in 2012, as opposed to only 4.3 percent in 2008. This outcome reflects the increasing number of nonconcessional loans or loans with less favorable financing conditions, in response to the authorities' ambitious public investment program and its large financing needs. Although the previous DSA noted a rise in domestic debt overtime, the stock of domestic debt decreased in 2012 compared to 2011, both in proportion of total public debt and as a percentage of GDP (Text Table 2). It is nonetheless projected to increase, notably because of the projected securitization of CFAF 100 billion of arrears in 2013.

UNDERLYING ASSUMPTIONS

3. **The baseline scenario assumes higher oil revenue, but lower growth and export prospects** (Text Table 3 and Box 1). Although oil prices are projected to decline, oil revenue is expected to be higher because of larger oil production. Actual real GDP growth was revised downward in 2012 because of the slow implementation of reforms and public investment. Exports were revised downward because of the less favorable external environment stemming from the ongoing euro area growth slump. Inflation is projected to remain low, in line with the convergence

[38] The draft DSA was discussed with the Cameroonian authorities in the course of the 2013 Article IV consultation. The present DSA follows the IMF and World Bank Staff Guidance Note on the Application of the Joint IMF-World Bank Debt Sustainability Framework for Low-Income Countries, dated January 22, 2010 (available at http://www.imf.org/external/pp/longres.aspx?id=4419 and http://go.worldbank.org/JBKAT4BH40).

criterion of the Central African Economic and Monetary Community (*Communauté Économique et Monétaire de l'Afrique Centrale*; CEMAC).

Text Table 1. Cameroon: Stock of Public Debt, 2006–12

	2006	2007	2008	2009	2010	2011	2012
			(Billions of CFA francs)				
Total public debt	1489	1171	1015	1114	1349	1662	2015
External debt	603	562	578	574	725	927	1127
Multilateral	206	230	289	377	460	577	632
Bilatérale	316	289	288	196	222	304	400
Bilateral Paris Club	294	251	245	63	91	85	75
Bilateral non-Paris Club	22	38	43	133	132	219	325
Commercial debt	81	43	1	1	43	46	96
Domestic debt	887	608	437	540	623	734	888
			(Percent of total)				
Total public debt	100.0	100.0	100.0	100.0	100.0	100.0	100.0
External debt	40.5	48.0	56.9	51.5	53.8	55.8	55.9
Multilateral	13.8	19.7	28.5	33.8	34.1	34.8	31.3
Bilateral	21.2	24.7	28.4	17.6	16.5	18.3	19.9
Bilateral Paris Club	19.7	21.4	24.2	5.7	6.7	5.1	3.7
Bilateral non-Paris Club	1.5	3.2	4.3	12.0	9.8	13.2	16.1
Commercial debt	5.4	3.7	0.1	0.1	3.2	2.8	4.7
Domestic debt	59.5	52.0	43.1	48.5	46.2	44.2	44.1
			(Percent of GDP)				
Total public debt	15.9	12.0	9.5	10.6	12.1	13.8	15.7
External debt	6.4	5.7	5.4	5.5	6.5	7.7	8.8
Multilateral	2.2	2.4	2.7	3.6	4.1	4.8	4.9
Bilateral	3.4	2.9	2.7	1.9	2.0	2.5	3.1
Bilateral Paris Club	3.1	2.6	2.3	0.6	0.8	0.7	0.6
Bilateral non-Paris Club	0.2	0.4	0.4	1.3	1.2	1.8	2.5
Commercial debt	0.9	0.4	0.0	0.0	0.4	0.4	0.7
Domestic debt	9.4	6.2	4.1	5.2	5.6	6.1	6.9
Memorandum item:							
Nominal GDP	9,388	9,792	10,629	10,466	11,138	12,026	12,848

Sources: Cameroonian authorities; and IMF and World Bank staff estimates.

Text Table 2. Cameroon: Domestic Debt Components, 2011–12

(CFAF billions, unless otherwise indicated)

	2011	2012	2012 Share in percent
Total domestic debt[1]	734	641	100
Structured debt	571	498	78
Banking	123	117	17
Non-banking	448	381	61
Non structured debt	163	144	22

Sources: Cameroonian authorities; and IMF and World Bank staff estimates.

[1] Excludes domestic financing for 2012 and securities to the national refinery SONARA.

Text Table 3. Cameroon: Key Macroeconomic Assumptions, 2012–33[1]

	2012–13	2014–17	2018–33
Real GDP growth (percent)			
DSA 2013	4.6	5.1	4.8
DSA 2012	4.8	5.4	4.6
Total revenue (percent of GDP)[2]			
DSA 2013	18.9	19.3	18.3
DSA 2012	18.3	17.6	16.8
Exports of goods and services (percent of GDP)			
DSA 2013	28.7	27.4	22.9
DSA 2012	32.1	30.3	23.9
Oil price (US dollars per barrel)			
DSA 2013	106.0	88.5	93.2
DSA 2012	106.4	90.1	85.0

Sources: Cameroonian authorities; and IMF and World Bank staff estimates.
[1] Previous DSA covers the period 2012–32.
[2] Total revenue, excluding grants.

4. **Public investment remains the driver of medium and long-term growth, as the authorities continue to carry out an ambitious public investment program.** In this context, large infrastructure projects buttress the country's growth strategy. The full impact of these projects is assumed to take place after 2018. Resources to finance the projects are expected to come from the budget, and from domestic and external loans. Concerning the latter, it is important to note the rise in nonconcessional loans—about 77 percent of all commitments since 2010 have been nonconcessional (Text Table 4).[39] The use of nonconcessional debt has not been limited to financing investment projects with high returns. This trend is expected to continue in view of Cameroon's large financing needs (Text Table 5). The volume of committed but non-disbursed loans has considerably increased from CFAF 1,421.7 billion in 2011 to CFAF 2,095.2 billion in 2012 (Text Table 6).

[39] New nonconcessional borrowing commitments are projected at CFAF 746 billion in 2013. This DSA will provide an input to the analysis of World Bank staff to establish ceilings for nonconcessional borrowing in 2013, under the International Development Association's nonconcessional borrowing policies. The amount of nonconcessional borrowing expected for 2013, 2014, and 2015 are CFAF 207, 276, and 308 billion, respectively.

Box 1. Cameroon: Macroeconomic Assumptions for the Baseline Scenario[1]

Medium Term, 2014–18

- Real GDP growth is projected to reach an average of 5.2 percent in the medium term, supported by non-oil exports, increased oil production, and higher capital spending, as private sector develops and business climate improves. Inflation is projected to remain low, at 2.5 percent a year, in line with historical trends and the Central African Economic and Monetary Union (CEMAC) convergence criterion.

- The revenue-to-GDP ratio is projected to increase over the medium term, from 18.4 percent in 2012 to 19.1 percent in 2018. Although oil prices are expected to be reduced in the medium term, higher oil production is assumed to offset the decline in prices.

- The external current account deficit is projected to widen from 3.7 percent of GDP in 2013 to 4.3 percent of GDP in 2018, caused by more imports, which in turn are driven by real growth and the increasing need for equipment and intermediate goods for infrastructure projects. The current account deficit is expected to be financed through foreign direct investment, external public borrowing, and other private capital inflows.

Long Term, 2019–33

- Real GDP growth is projected to reach an average of 4.7 percent. Long-term growth is driven by non-oil exports, a sustained rate of capital spending, as the economic activity benefits from private sector development, induced by a more favorable business climate.

- Revenue is projected to decrease from 19.1 percent of GDP in 2018 to 17.5 percent of GDP in 2033. This trend assumes that oil revenue will decline with the depletion of oil reserves, while non-oil revenue is sustained by further structural reforms, improving revenue collection, and a more diversified economy.

- The external current account deficit is projected to narrow until 2023, reaching then 4 percent of GDP. From 2024 onward, it widens again, reaching 5.7 percent of GDP in 2033. It is assumed that until 2023, the current account is mainly driven by a rebound in exports, as the European market recovers. The larger deficit from 2024 onward assumes stronger import of equipment and intermediate goods, as private sector develops and the business climate improves.

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[1]The baseline scenario uses the latest IMF World Economic Outlook assumptions (April 2013).

Text Table 4. Cameroon: Allocation of New External Commitments Since 2010

Concessionality (Percent)	Amount (Billions of CFA francs)	Cumulative amount (Billions of CFA francs)	Simple frequency (Percent)	Cumulative frequency (Percent)
- 6 - 0	41.6	41.6	1.7	1.7
0 - 10	418.7	460.3	17.5	19.3
10 - 25	317.4	777.7	13.3	32.6
25 - 30	541.2	1,318.9	22.7	55.3
30 - 35	526.7	1,845.6	22.1	77.3
35 - 45	12.1	1,857.7	0.5	77.9
45 - 70	525.3	2,383.0	22.0	99.9
70 and more	3.3	2,386.2	0.1	100.0
Total	2,386.3		100	

Source: Cameroonian authorities.

5. **Oil prices are expected to decline in the short and medium terms, but production is projected to increase.** These measures include the re-opening of several wells, thanks to new extracting techniques, the search for new extraction zones, and the discovery of an important oil field in Rio del Rey. Although some industries are expected to contribute to export growth in the medium term (e.g., electricity, cement), export prospects remain tame, because Europe, the main trading partner, is still prone to slow growth.

Text Table 5. Cameroon: New External Borrowing Baseline, 2013–33

(CFAF billions, unless otherwise indicated)

	2013	2016	2020	2025	2030	2033 [1]	Average 2013-18	Average 2019-33
New borrowing, 2013 DSA	265	421	491	559	616	582	394	564
Concessional	59	77	75	77	77	71	73	76
Percent of total	22	18	15	14	12	12	19	14
Nonconcessional	207	344	417	482	539	511	321	488
Percent of total	78	82	85	86	88	88	81	86
New borrowing, 2012 DSA	249	372	383	415	440	…	347	416
Concessional	124	109	103	99	91	…	115	97
Percent of total	50	29	27	24	21	…	34	23
Nonconcessional	124	263	280	317	349	…	232	319
Percent of total	50	71	73	76	79	…	66	77

Sources: IMF and World Bank staff projections.

[1] 2032 for 2012 DSA.

Text Table 6. Cameroon: Committed but Non-Disbursed Loans, 2010–12
(CFAF billions)

	2010	2011	2012
Multilateral	613	630	727
Bilateral	156	697	1,286
Commercial	...	94	83
Total	769	1,422	2,095

Source: Cameroonian authorities.

EXTERNAL DEBT SUSTAINABILITY ASSESSMENT

A. Baseline Scenario

6. **The low-income country (LIC) debt sustainability framework is guided by policy-dependent indicative debt burden thresholds for external debt**. These thresholds reflect the empirical findings that sustainable debt levels for a LIC increase with the quality of policies and institutions. Such quality is measured by the Country Policy and Institutional Assessment (CPIA) index, compiled annually by the World Bank. Compared to last year, Cameroon has slightly improved its ranking, but still scores low, at 3.5 (yearly score on a scale of 1 to 6; Text Table 7). Cameroon's rank is similar to the CEMAC average, but is above the Sub-Saharan African (SSA) average. The indicative external debt burden thresholds for countries in this category are (i) a present value (PV) of the debt-to-exports ratio of 100 percent; (ii) a PV of the debt-to-revenue ratio of 200 percent; (iii) a PV of the debt-to-GDP ratio of 30 percent; and (iv) debt-service-to-exports and debt service-to-revenue ratios of 15 percent and 18 percent, respectively.

Text Table 7. Cameroon: Country Policy and Institutional Assessment Ratings, 2007–11[1]

	2007	2008	2009	2010	2011
Cameroon	3.23	3.21	3.21	3.17	3.5
CEMAC[2]	2.74	2.74	2.79	2.80	3.5
Sub-Saharan Africa[2]	3.17	3.15	3.17	3.21	3.0

Source: World Bank, World Development Indicators (2013).
[1] CPIA ratings measure the quality of a country's policies and institutions. They range from 1 (Low) to 6 (High).
[2] Poverty Reduction and Growth Trust (PRGT) eligible countries.

7. **Cameroon's external debt remains sustainable, with all external debt ratios staying below their respective thresholds** (Text Table 8 and Figure 1).[40] There is however an upward trend

[40] Following the latest LIC-DSA template, the discount rate used is 3 percent (reduced from 4 percent in the previous DSA).

for all debt ratio indicators until 2023, before stabilizing at the end of the projection period. The grant element of new borrowing and the grant equivalent financing as a percent of GDP decrease over time. These trends reflect an intensification of debt contracting and a deterioration in the level of concessionality mostly in response to the large financing needs that result from the public investment program. Given these trends, a further increase in nonconcessional borrowing may present a threat to debt sustainability in the long term, especially given the size of already committed but not disbursed, nonconcessional loans.

B. Alternative Scenario and Stress Tests

8. An alternative scenario, in which no loan is concessional, was conducted (Table 3b). Under this scenario, the PV of debt-to-exports breaches its threshold following an export shock in a long and protracted way, hence qualifying the level of debt distress as moderate. Although all other debt indicators remain below their thresholds, they now have a more pronounced upward path. As in the previous DSA, historical scenarios, characterized by an external current account surplus which is unlikely to occur given our previously described macroeconomic assumptions, is therefore not shown in Figures 1 and 2.

9. As in the previous DSA, an export shock would remain a source of increased debt vulnerability. This shock has become more relevant, as the latest International Energy Agency (IEA) medium-term market report shows[41] the positive oil supply shock in the United States will likely have a lasting impact on the global oil market, especially affecting demand from African oil-exporting countries. The export stress test, defined as export growth in US dollar terms in 2014–2015 at one standard deviation below the ten-year historical average, assumes a drop of 5.7 percent in the value of exports in 2014–15, and a return to the growth rates assumed in the baseline scenario thereafter. Following this shock, the present value of debt to export increases significantly until 2028, and although remaining below its threshold, closely approaches it.

PUBLIC SECTOR DEBT SUSTAINABILITY ASSESSMENT

10. As in the previous DSA, the inclusion of domestic debt does not change the results, but shows a clear deterioration in the debt ratios. The PV of debt-to-GDP ratio is projected to reach even higher levels than in the last DSA, rising from 17 percent of GDP in 2013 to 54 percent of GDP in 2033. The PV of debt-to-revenue and the PV of debt service-to-revenue also follow an upward trajectory. The upward trend in the debt ratios reflects more issuance of government securities, more securitization of arrears to SONARA (concerning the latter, the authorities already announced during the 2013 Article IV consultation mission that CFAF 100 billion worth of arrears will be securitized in 2013), and the accumulation of further domestic debt related to projected fiscal financing gaps.

[41] See http://iea.org/newsroomandevents/pressreleases/2013/may/name,38080,en.html.

Text Table 8. Cameroon: Baseline Debt Ratios, 2013–33
(Percent)

	Threshold	2013	Medium term 2014–18	Long term 2019–33
		Debt Sustainability Analysis, 2013		
External debt				
PV of debt-to-GDP	30	7.7	11.1	14.7
PV of debt-to-exports	100	27	41	64.9
PV of debt-to-revenue	200	39.4	58	80.8
Debt service-to-exports	15	1.6	2.2	4
Debt service-to-revenue	18	2.4	3.1	5
Public debt				
PV of debt-to-GDP		17.2	25.9	44.5
PV of debt-to-revenue		86.5	132.7	244.8
Debt service-to-revenue		7.7	10.5	14.1

		2013	2014–18	2019–32
		Debt Sustainability Analysis, 2012 [1]		
External debt				
PV of debt-to-GDP	30	7.9	10.3	12.8
PV of debt-to-exports	100	24.5	34.3	54.6
PV of debt-to-revenue	200	43.2	58.2	76.5
Debt service-to-exports	15	1.5	1.8	3.3
Debt service-to-revenue	18	2.6	3	4.6
Public debt				
PV of debt-to-GDP		18	26.1	40.8
PV of debt-to-revenue		96.8	145.3	244.3
Debt service-to-revenue		10.3	11.4	11.5

Sources: IMF and World Bank staff estimates.

[1] The 2012 DSA ended in 2032.

11. It is essential to monitor debt closely to preserve sustainability, especially in view of the large financing needs that result from the public investment program. As discussed in the previous DSA, the authorities have started implementing a new debt management strategy. This strategy provides an important role for the National Debt Committee (NDC), whose mission is to implement the country's debt strategy and oversee its good management. While the NDC made significant progress in becoming operational—through the adoption of its internal rules of procedure, clarification of the borrowing process, and identification of the Committee's intervention points—its ability to advise on potential loans should be reinforced.

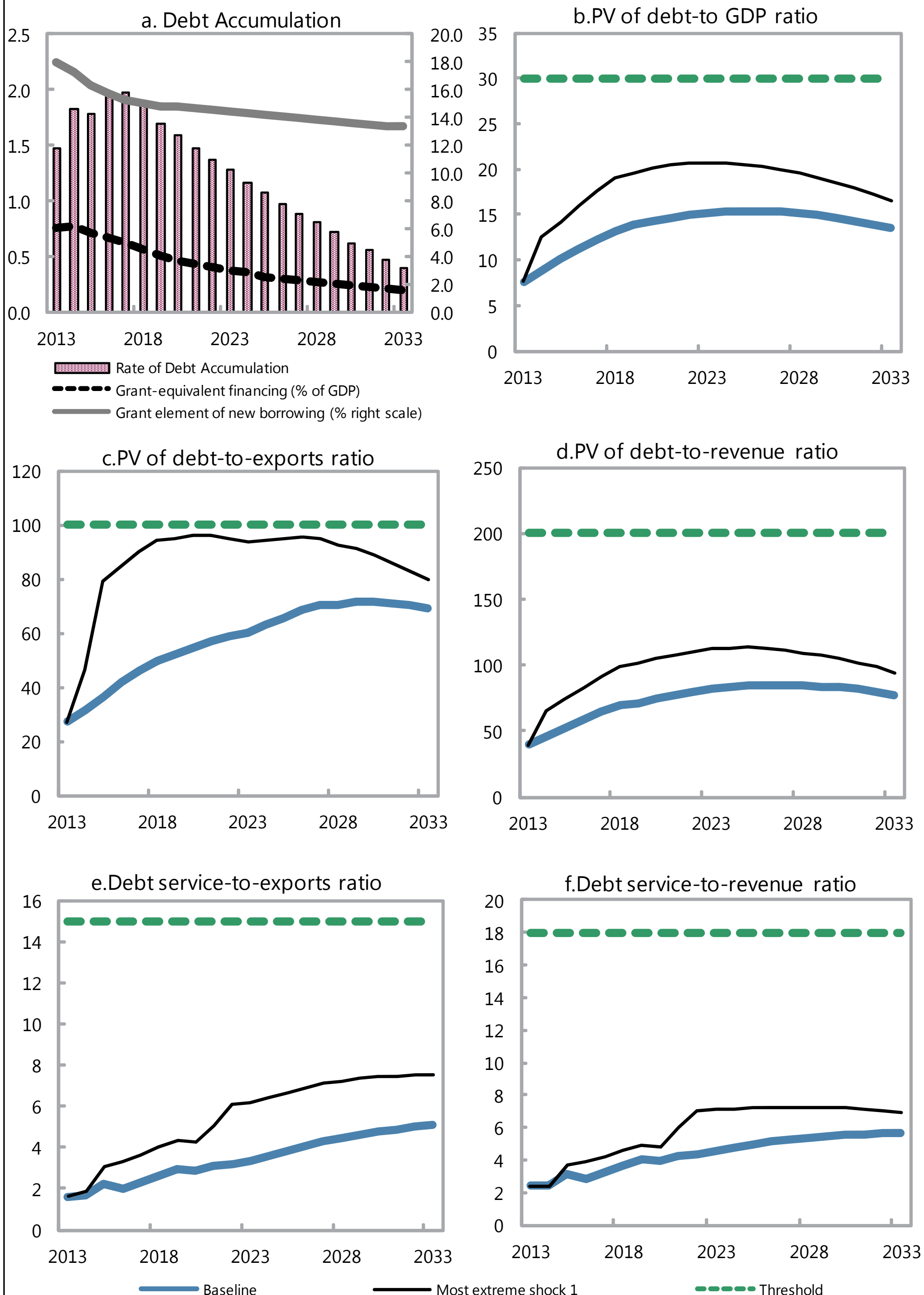
CONCLUSION

12. **On the basis of this DSA, Cameroon remains at a low risk of debt distress, but vulnerabilities persist.** All debt indicators are below their thresholds. However, contrary to the previous DSA, vulnerabilities not only come from domestic debt, but also from external debt, through the decreasing trend in the grant element of new borrowing. This result not only calls for the adoption of prudent fiscal policies, but also the close monitoring of potential loans from non-residents to assure the highest possible level of concessionality. Nonconcessional loans should only be considered in well-assessed, high-yield commercial and infrastructure projects that will generate sufficient government revenue to cover related debt service. In order to mitigate these risks, further structural reforms—and their timely implementation and enforcement—to improve non-oil revenue collection and promote a more diversified private sector, will be necessary.

13. **The present DSA should be interpreted with caution because problems with insufficient data coverage and weak public financial management continue.** Under these conditions, the existence of contingent liabilities and quasi-fiscal liabilities of state-owned enterprises and distressed banks, as well as the build-up of domestic arrears may inform the analysis and highlight the existing underlying risks. It may be prudent to limit the participation of the state to the financing of projects linked to the natural resources sector, to lessen the potential burden of contingent liabilities.

14. **The Cameroonian authorities have indicated their agreement with the analysis and conclusion reached in this DSA.** They agreed that it is essential to maintain debt sustainability, especially in the broader context of achieving the country's long-term growth through an ambitious public investments program. They indicated, however, that given Cameroon's large financing needs, finding loans with favorable conditions may not be always possible. The authorities will endeavor to secure concessional loans whenever possible, and by default, contract nonconcessional loans only for projects that have sufficiently high returns to cover debt service. In addition, the authorities are working closely with the World Bank regarding the ceiling of contracted nonconcessional loans.

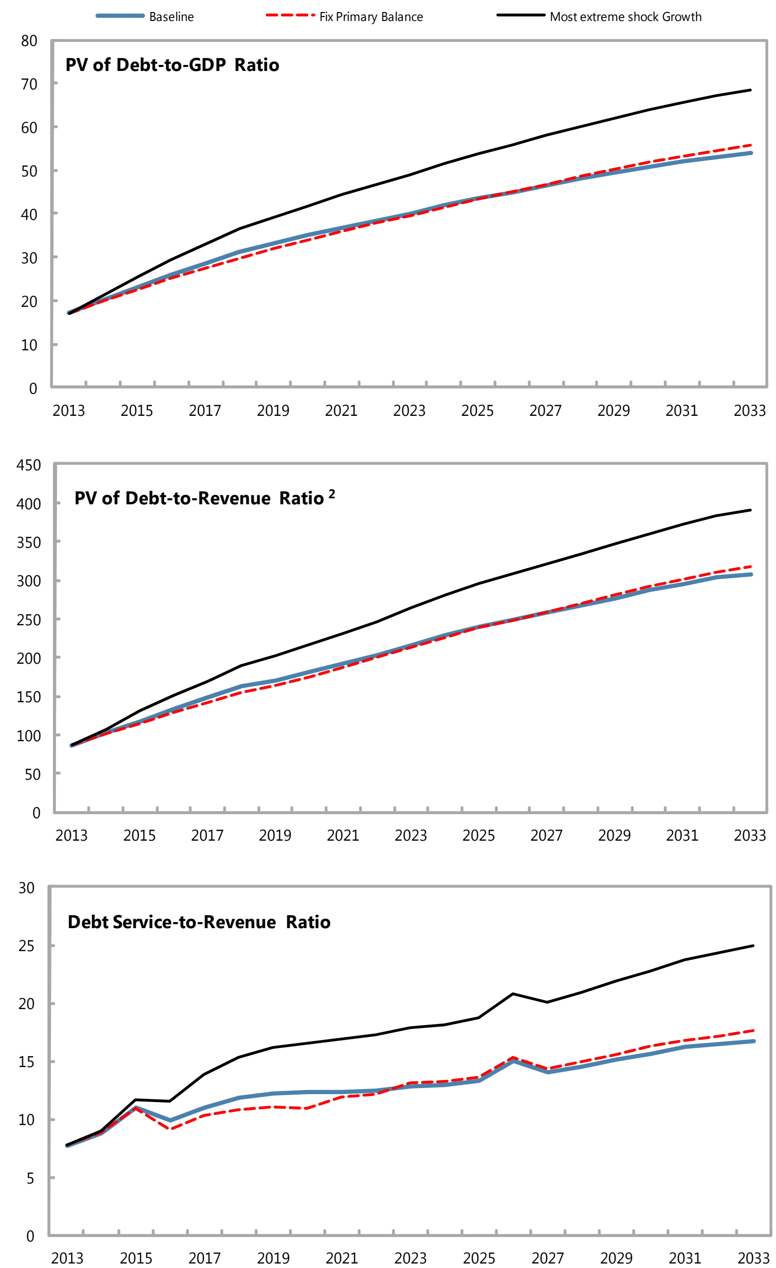
Figure 1. Cameroon: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2013–2033[1]



Sources: Cameroonian authorities; and IMF and World Bank staff estimates and projections.

[1] The most extreme stress test is the test that yields the highest ratio in 2023. 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 Non-debt flows shock

Figure 2. Cameroon: Indicators of Public Debt Under Alternative Scenarios, 2013–2033[1]



Sources: Cameroonian authorities; and IMF and World Bank staff estimates and projections.

[1] The most extreme stress test is the test that yields the highest ratio in 2023.

[2] Revenues are defined inclusive of grants.

Table 1. Cameroon: Public Sector Debt Sustainability Framework, Baseline Scenario, 2010–2033

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2010	2011	2012	Average [5]	Standard Deviation [5]	2013	2014	2015	2016	2017	2018	2013-18 Average	2023	2033	2019-33 Average
Public sector debt [1]	12.1	13.8	15.7			19.3	22.5	25.6	28.5	31.3	34.0		42.8	56.4	
of which: foreign-currency denominated	6.5	7.7	8.8			9.8	11.2	12.5	13.8	15.0	15.9		17.9	15.8	
Change in public sector debt	1.5	1.7	1.9			3.6	3.3	3.1	2.9	2.8	2.7		1.7	0.9	
Identified debt-creating flows	0.8	2.1	0.7			2.8	2.9	2.7	2.5	2.4	2.3		1.3	0.8	
Primary deficit	1.0	2.7	0.8	-4.3	10.5	3.4	3.8	3.7	3.7	3.8	3.8	3.7	3.3	3.0	3.2
Revenue and grants	17.4	18.7	18.9			19.9	19.8	19.6	19.5	19.4	19.3		18.6	17.6	
of which: grants	0.6	0.5	0.4			0.4	0.4	0.3	0.3	0.2	0.2		0.1	0.0	
Primary (noninterest) expenditure	18.4	21.4	19.7			23.3	23.5	23.3	23.2	23.2	23.1		21.8	20.6	
Automatic debt dynamics	-0.2	-0.6	-0.6			-0.8	-0.9	-1.0	-1.2	-1.4	-1.5		-2.0	-2.2	
Contribution from interest rate/growth differential	-0.4	-0.5	-0.5			-0.8	-0.9	-1.0	-1.2	-1.4	-1.6		-1.9	-2.2	
of which: contribution from average real interest rate	-0.1	0.0	0.1			-0.1	0.0	0.1	0.0	0.1	0.1		0.0	0.1	
of which: contribution from real GDP growth	-0.3	-0.5	-0.6			-0.7	-0.9	-1.1	-1.3	-1.4	-1.6		-2.0	-2.3	
Contribution from real exchange rate depreciation	0.2	-0.1	0.0			-0.1	0.0	0.0	0.1	0.0	0.0		...	...	
Other identified debt-creating flows	0.0	0.0	0.5			0.2	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	0.5			0.2	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	0.6	-0.4	1.2			0.8	0.4	0.4	0.4	0.4	0.4		0.4	0.0	
Other Sustainability Indicators															
PV of public sector debt	...	...	13.7			17.2	20.3	23.2	26.0	28.7	31.3		40.1	54.1	
of which: foreign-currency denominated	...	...	6.8			7.7	8.9	10.0	11.3	12.3	13.2		15.1	13.5	
of which: external	...	...	6.8			7.7	8.9	10.0	11.3	12.3	13.2		15.1	13.5	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need [2]	1.7	4.0	2.5			5.0	5.5	5.8	5.6	5.9	6.1		5.7	5.9	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	72.5			86.5	102.5	118.0	132.9	147.8	162.3		216.0	307.9	
PV of public sector debt-to-revenue ratio (in percent)	...	...	74.2			88.3	104.4	119.9	134.9	149.7	164.0		217.2	308.6	
of which: external [3]	...	...	36.7			39.4	45.9	52.0	58.5	64.3	69.2		82.1	77.3	
Debt service-to-revenue and grants ratio (in percent) [4]	3.7	7.0	8.9			7.7	8.8	11.0	9.9	11.0	11.9		12.8	16.7	
Debt service-to-revenue ratio (in percent) [4]	3.8	7.2	9.1			7.8	9.0	11.2	10.0	11.1	12.0		12.9	16.7	
Primary deficit that stabilizes the debt-to-GDP ratio	-0.4	1.0	-1.1			-0.2	0.5	0.6	0.8	1.0	1.2		1.6	2.1	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	3.3	4.1	4.4	3.3	0.8	4.8	5.0	5.1	5.2	5.3	5.5	5.1	5.0	4.2	4.7
Average nominal interest rate on forex debt (in percent)	1.2	2.8	2.4	2.0	1.1	1.1	1.2	1.3	1.5	1.7	1.7	1.4	1.9	1.9	1.9
Average real interest rate on domestic debt (in percent)	-1.8	-1.6	0.2	-0.4	2.4	-0.4	0.6	0.9	0.6	0.8	0.8	0.6	0.3	0.3	0.4
Real exchange rate depreciation (in percent, + indicates depreciation	4.6	-1.2	-0.6	-2.3	4.7	-1.0	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	3.0	3.7	2.3	2.0	2.3	2.0	2.2	2.1	2.1	2.0	1.9	2.1	2.4	2.2	2.2
Growth of real primary spending (deflated by GDP deflator, in percer	0.0	0.2	0.0	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	18.0	17.3	16.3	15.8	15.3	15.1	16.3	14.5	13.3	...

Sources: Cameroonian authorities; and IMF and World Bank staff estimates and projections.

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

2 Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.

3 Revenues excluding grants.

4 Debt service is defined as the sum of interest and amortization of medium and long-term debt.

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

CAMEROON

Table 2. Cameroon: Sensitivity Analysis for Key Indicators of Public Debt 2013–2033

	Projections							
	2013	2014	2015	2016	2017	2018	2023	2033
PV of Debt-to-GDP Ratio								
Baseline	17	20	23	26	29	31	40	54
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	17	13	9	5	1	-3	-20	-50
A2. Primary balance is unchanged from 2013	17	20	23	25	28	30	40	56
A3. Permanently lower GDP growth[1]	17	20	23	26	29	32	42	61
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2014-20	17	21	26	29	33	36	49	68
B2. Primary balance is at historical average minus one standard deviations in 2014-201	17	22	28	30	33	35	43	56
B3. Combination of B1-B2 using one half standard deviation shocks	17	18	19	23	26	30	43	63
B4. One-time 30 percent real depreciation in 2014	17	23	26	29	31	33	42	57
B5. 10 percent of GDP increase in other debt-creating flows in 2014	17	30	32	35	37	39	46	58
PV of Debt-to-Revenue Ratio[2]								
Baseline	86	102	118	133	148	162	216	308
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	86	66	45	25	5	-15	-110	-284
A2. Primary balance is unchanged from 2013	86	101	115	129	142	155	214	318
A3. Permanently lower GDP growth1	86	103	119	135	150	166	228	347
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2014-20	86	107	130	150	170	189	264	390
B2. Primary balance is at historical average minus one standard deviations in 2014-201	86	114	141	155	169	183	233	320
B3. Combination of B1-B2 using one half standard deviation shocks	86	91	95	115	136	155	231	359
B4. One-time 30 percent real depreciation in 2014	86	118	132	146	160	174	226	323
B5. 10 percent of GDP increase in other debt-creating flows in 2014	86	150	164	177	191	203	250	332
Debt Service-to-Revenue Ratio[2]								
Baseline	8	9	11	10	11	12	13	17
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	8	9	10	-9	-10	-17	-26	-55
A2. Primary balance is unchanged from 2013	8	9	11	9	10	11	13	18
A3. Permanently lower GDP growth[1]	8	9	11	10	11	12	14	20
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2014-20	8	9	12	12	14	15	18	25
B2. Primary balance is at historical average minus one standard deviations in 2014-201	8	9	11	15	17	15	14	19
B3. Combination of B1-B2 using one half standard deviation shocks	8	9	11	3	5	11	16	21
B4. One-time 30 percent real depreciation in 2014	8	9	12	11	13	14	17	24
B5. 10 percent of GDP increase in other debt-creating flows in 2014	8	9	13	31	13	21	14	20

Sources: Cameroonian authorities; and IMF and World Bank 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.

Table 3a.: External Debt Sustainability Framework, Baseline Scenario, 2010–2033[1]

(In percent of GDP, unless otherwise indicated)

	Actual			Historical [6] Average	Standard [6] Deviation	Projections									
	2010	2011	2012			2013	2014	2015	2016	2017	2018	2013-2018 Average	2023	2033	2019-2033 Average
External debt (nominal)[1]	**6.5**	**7.7**	**8.8**			**9.8**	**11.2**	**12.5**	**13.8**	**15.0**	**15.9**		**17.9**	**15.8**	
of which: public and publicly guaranteed (PPG)	6.5	7.7	8.8			9.8	11.2	12.5	13.8	15.0	15.9		17.9	15.8	
Change in external debt	1.0	1.2	1.1			1.0	1.4	1.3	1.4	1.2	1.0		0.2	-0.5	
Identified net debt-creating flows	1.5	0.1	1.5			1.2	1.6	1.4	1.4	1.4	1.1		0.3	-0.6	
Non-interest current account deficit	**2.9**	**2.8**	**3.6**	**1.1**	**1.4**	**3.6**	**3.6**	**3.7**	**3.9**	**4.1**	**4.0**		**3.7**	**5.4**	4.8
Deficit in balance of goods and services	3.4	2.8	2.9			3.0	2.9	3.2	3.7	3.9	4.0		3.8	5.7	
Exports	25.5	29.5	29.0			28.4	28.2	27.6	27.1	26.8	26.5		25.1	19.5	
Imports	28.9	32.2	31.9			31.4	31.1	30.8	30.8	30.7	30.5		28.9	25.2	
Net current transfers (negative = inflow)	-1.5	-1.0	-0.8	-1.6	0.6	-0.9	-0.9	-0.9	-0.8	-0.8	-0.7		-0.4	-0.2	-0.3
of which: official	-1.0	-1.0	-0.9			-1.0	-1.0	-0.9	-0.9	-0.8	-0.7		-0.6	-0.4	
Other current account flows (negative = net inflow)	1.1	1.0	1.5			1.5	1.6	1.3	1.0	0.9	0.7		0.3	-0.1	
Net FDI (negative = inflow)	**-1.4**	**-2.1**	**-2.4**	**-4.7**	**7.8**	**-2.1**	**-1.7**	**-1.9**	**-2.0**	**-2.3**	**-2.4**		**-3.0**	**-5.7**	-4.4
Endogenous debt dynamics[2]	**0.0**	**-0.6**	**0.3**			**-0.3**	**-0.3**	**-0.4**	**-0.4**	**-0.5**	**-0.5**		**-0.5**	**-0.4**	
Contribution from nominal interest rate	0.1	0.2	0.2			0.1	0.1	0.1	0.2	0.2	0.2		0.3	0.3	
Contribution from real GDP growth	-0.2	-0.2	-0.3			-0.4	-0.5	-0.5	-0.6	-0.7	-0.8		-0.8	-0.6	
Contribution from price and exchange rate changes	0.1	-0.5	0.4			...	...	...	...	...	...		...	...	
Residual (3-4)[3]	**-0.5**	**1.1**	**-0.4**			**-0.2**	**-0.2**	**-0.1**	**-0.1**	**-0.2**	**-0.2**		**-0.1**	**0.2**	
of which: exceptional financing	1.0	-1.3	0.3			-0.2	-0.1	0.2	0.4	0.3	0.3		0.2	0.1	
PV of external debt[4]	...	...	6.8			7.7	8.9	10.0	11.3	12.3	13.2		15.1	13.5	
In percent of exports	...	...	23.4			27.0	31.5	36.4	41.5	46.0	49.7		60.2	69.4	
PV of PPG external debt	**...**	**...**	**6.8**			**7.7**	**8.9**	**10.0**	**11.3**	**12.3**	**13.2**		**15.1**	**13.5**	
In percent of exports	**...**	**...**	**23.4**			**27.0**	**31.5**	**36.4**	**41.5**	**46.0**	**49.7**		**60.2**	**69.4**	
In percent of government revenues	**...**	**...**	**36.7**			**39.4**	**45.9**	**52.0**	**58.5**	**64.3**	**69.2**		**82.1**	**77.3**	
Debt service-to-exports ratio (in percent)	**0.9**	**1.1**	**1.7**			**1.6**	**1.6**	**2.2**	**2.0**	**2.3**	**2.6**		**3.3**	**5.1**	
PPG debt service-to-exports ratio (in percent)	**0.9**	**1.1**	**1.7**			**1.6**	**1.6**	**2.2**	**2.0**	**2.3**	**2.6**		**3.3**	**5.1**	
PPG debt service-to-revenue ratio (in percent)	**1.4**	**1.7**	**2.6**			**2.4**	**2.4**	**3.2**	**2.9**	**3.2**	**3.7**		**4.5**	**5.7**	
Total gross financing need (Billions of U.S. dollars)	0.4	0.3	0.4			0.6	0.7	0.8	0.8	0.9	0.9		0.9	0.9	
Non-interest current account deficit that stabilizes debt ratio	1.9	1.6	2.5			2.6	2.2	2.4	2.5	2.9	3.1		3.6	5.9	
Key macroeconomic assumptions															
Real GDP growth (in percent)	3.3	4.1	4.4	3.3	0.8	4.8	5.0	5.1	5.2	5.3	5.5	5.1	5.0	4.2	4.7
GDP deflator in US dollar terms (change in percent)	-1.6	8.8	-5.4	5.6	8.9	5.4	1.4	1.4	1.3	1.2	1.2	2.0	3.4	3.2	3.2
Effective interest rate (percent)[5]	1.2	2.8	2.4	1.9	1.1	1.1	1.2	1.3	1.5	1.7	1.7	1.4	1.9	1.9	1.9
Growth of exports of G&S (US dollar terms, in percent)	10.1	30.9	-3.0	11.8	17.5	8.3	5.9	4.1	4.6	5.4	5.7	5.7	6.7	6.0	5.9
Growth of imports of G&S (US dollar terms, in percent)	3.5	26.5	-2.4	11.9	15.0	8.9	5.6	5.5	6.3	6.5	6.1	6.5	6.9	5.8	6.7
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	18.0	17.3	16.3	15.8	15.3	15.1	16.3	14.5	13.3	14.1
Government revenues (excluding grants, in percent of GDP)	16.8	18.2	18.4			19.4	19.4	19.3	19.3	19.2	19.1		18.4	17.5	18.2
Aid flows (in Billions of US dollars) [7]	0.3	0.4	0.5			0.2	0.3	0.3	0.2	0.2	0.2		0.2	0.2	
of which: Grants	0.1	0.1	0.1			0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	
of which: Concessional loans	0.2	0.2	0.4			0.1	0.1	0.1	0.2	0.2	0.2		0.2	0.2	
Grant-equivalent financing (in percent of GDP)[8]	...	...	...			0.8	0.8	0.7	0.7	0.6	0.6		0.4	0.2	0.3
Grant-equivalent financing (in percent of external financing)[8]	...	...	...			15.0	15.1	14.5	14.3	14.0	14.0		13.7	12.9	13.5
Memorandum items:															
Nominal GDP (Billions of US dollars)	22.5	25.5	25.2			27.8	29.6	31.5	33.6	35.8	38.3		58.0	122.5	
Nominal dollar GDP growth	1.6	13.2	-1.2			10.5	6.4	6.5	6.5	6.6	6.8	7.2	8.6	7.6	8.1
PV of PPG external debt (in Billions of US dollars)			1.8			2.1	2.6	3.2	3.8	4.4	5.1		8.4	14.4	
(PVt-PVt-1)/GDPt-1 (in percent)						1.5	1.8	1.8	1.9	2.0	1.9	1.8	1.3	0.4	1.0
Gross workers' remittances (Billions of US dollars)	0.3	0.4	0.3			0.3	0.3	0.3	0.3	0.3	0.3		0.4	0.5	
PV of PPG external debt (in percent of GDP + remittances)	...	...	6.7			7.6	8.8	9.9	11.2	12.2	13.1		15.0	13.5	
PV of PPG external debt (in percent of exports + remittances)	...	...	22.5			26.0	30.4	35.1	40.1	44.5	48.2		58.7	67.9	
Debt service of PPG external debt (in percent of exports + remittance	...	...	1.6			1.6	1.6	2.1	2.0	2.2	2.6		3.2	5.0	

Sources: Cameroonian authorities; and IMF and World Bank 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 3b. Cameroon: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2013–2033

(In percent)

	Projections							
	2013	2014	2015	2016	2017	2018	**2023**	2033
PV of debt-to GDP ratio								
Baseline	8	9	10	11	12	13	**15**	14
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2013-2033[1]	8	4	0	-3	-7	-9	**-20**	-25
A2. New public sector loans on less favorable terms in 2013-2033[2]	8	10	11	13	15	17	**20**	19
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	8	9	11	12	13	14	**15**	12
B2. Export value growth at historical average minus one standard deviation in 2014-2015[3]	8	12	18	19	19	20	**19**	13
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	8	9	11	12	14	15	**16**	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015[4]	8	13	19	20	20	21	**20**	13
B5. Combination of B1-B4 using one-half standard deviation shocks	8	10	13	15	16	17	**17**	12
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014[5]	8	13	14	16	18	19	**21**	16
PV of debt-to-exports ratio								
Baseline	27	32	36	42	46	50	**60**	69
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2013-2033[1]	27	13	0	-12	-24	-36	**-80**	-127
A2. New public sector loans on less favorable terms in 2013-2033[2]	27	34	41	49	56	62	**78**	96
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	27	31	36	41	46	50	**58**	59
B2. Export value growth at historical average minus one standard deviation in 2014-2015[3]	27	46	79	85	90	94	**93**	79
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	27	31	36	41	46	50	**58**	59
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015[4]	27	47	68	72	76	80	**78**	65
B5. Combination of B1-B4 using one-half standard deviation shocks	27	37	48	53	58	62	**67**	63
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014[5]	27	31	36	41	46	50	**58**	59
PV of debt-to-revenue ratio								
Baseline	39	46	52	58	64	69	**82**	77
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2013-2033[1]	39	19	0	-17	-34	-50	**-109**	-142
A2. New public sector loans on less favorable terms in 2013-2033[2]	39	49	59	68	78	87	**106**	107
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	39	47	54	61	68	73	**83**	69
B2. Export value growth at historical average minus one standard deviation in 2014-2015[3]	39	60	91	96	101	106	**103**	71
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	39	48	57	64	71	77	**87**	73
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015[4]	39	68	97	102	107	111	**106**	72
B5. Combination of B1-B4 using one-half standard deviation shocks	39	53	69	76	82	87	**92**	71
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014[5]	39	65	74	83	92	99	**112**	94

Table 3b.Cameroon: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2013–2033 (continued)

(In percent)

Debt service-to-exports ratio								
Baseline	2	2	2	2	2	3	**3**	5
A. Alternative Scenarios								
A2. New public sector loans on less favorable terms in 2013-2033[2]	2	2	2	2	2	3	**4**	8
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	2	2	2	2	2	3	**3**	5
B2. Export value growth at historical average minus one standard deviation in 2014-2015[3]	2	2	3	3	4	4	**6**	8
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	2	2	2	2	2	3	**3**	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015[4]	2	2	3	3	3	3	**5**	6
B5. Combination of B1-B4 using one-half standard deviation shocks	2	2	2	2	3	3	**4**	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014[5]	2	2	2	2	2	3	**3**	5
Debt service-to-revenue ratio								
Baseline	2	2	3	3	3	4	**5**	6
A. Alternative Scenarios								
A2. New public sector loans on less favorable terms in 2013-2033[2]	2	2	3	3	3	4	**6**	9
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	2	2	3	3	3	4	**5**	6
B2. Export value growth at historical average minus one standard deviation in 2014-2015[3]	2	2	3	4	4	5	**7**	7
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	2	2	3	3	4	4	**5**	6
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015[4]	2	2	4	4	4	5	**7**	7
B5. Combination of B1-B4 using one-half standard deviation shocks	2	2	3	3	4	4	**6**	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014[5]	2	3	4	4	5	5	**6**	8
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline)[6]	8	8	8	8	8	8	**8**	8

Sources: Cameroonian authorities; and IMF and World Bank 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.