



CAMEROON

STAFF REPORT FOR THE 2015 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

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The Debt Sustainability Analysis has been prepared jointly by IMF and World Bank staff, in consultation with the authorities, using the debt sustainability framework for low-income countries approved by the Boards of both institutions.

This Debt Sustainability Analysis finds that Cameroon's risk of external debt distress increased from "moderate" to "high" between the last consultation and end-2014. The recent acceleration in the accumulation of debt, increasingly on non-concessional terms, and the significant deterioration in the outlook for exports are the main causes of the higher risk rating. The policy-dependent threshold for the present value of debt to exports is breached in 2021 under the baseline scenario. In addition, standard stress tests result in the breaches of two policy-dependent thresholds. The risk of total debt distress is also "high." Rising domestic borrowing leads to a breach in the policy-dependent benchmark for the ratio of the present value of total public debt to GDP. The analysis does not reflect the possible issue of a Eurobond. The inclusion of the Eurobond would reinforce the conclusion of a "high" risk of external debt distress. To mitigate risks and underpin debt sustainability in the medium term, significant adjustments in the amounts and terms of both external and domestic borrowing are necessary.

BACKGROUND

1. This Debt Sustainability Analysis (DSA) of Cameroon's public debt was prepared jointly by the International Monetary Fund (IMF) and the World Bank. It builds on the 2014 DSA (IMF Country Report No. 14/212)¹⁴ and uses the latest standard dynamic debt template for low-income countries (LIC), based on data from the authorities for end-2014 (Text Table 1), and the macroeconomic framework derived from the 2015 IMF Article IV consultation. The assessment is based on data for external and domestic debt of the central government, as well as implicitly or explicitly guaranteed external debt of public enterprises,¹⁵ which are contingent liabilities of the government, amounting to CFAF 527 billion at end-2014. Debt statistics would benefit from a more comprehensive coverage of the government's contingent liabilities, and the liabilities of public enterprises and municipalities.

Text Table 1. Cameroon: Stock of Public Debt, 2007–14

	2007	2008	2009	2010	2011	2012	2013	2014
	(CFAF billions)							
Total public and publicly guaranteed debt	1,171	1,015	1,114	1,349	1,662	2,085	2,780	4,149
External debt	562	578	574	725	927	1,197	1,766	2,774
Multilateral	230	289	377	460	577	632	725	927
Bilateral	289	288	196	222	304	400	751	1,200
Bilateral Paris Club	251	245	63	91	85	75	113	125
Bilateral non-Paris Club	38	43	133	132	219	325	638	1,074
Commercial	43	1	1	43	46	96	125	120
Guaranteed	...	...	...	...	...	70	164	527
Domestic debt	608	437	540	623	734	888	1,014	1,375
	(Percent of total)							
Total public and publicly guaranteed debt	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
External debt	48.0	56.9	51.5	53.8	55.8	57.4	63.5	66.9
Multilateral	19.7	28.5	33.8	34.1	34.8	30.3	26.1	22.3
Bilateral	24.7	28.4	17.6	16.5	18.3	19.2	27.0	28.9
Bilateral Paris Club	21.4	24.2	5.7	6.7	5.1	3.6	4.1	3.0
Bilateral non-Paris Club	3.2	4.3	12.0	9.8	13.2	15.6	23.0	25.9
Commercial	3.7	0.1	0.1	3.2	2.8	4.6	4.5	2.9
Guaranteed	...	...	...	...	...	3.4	5.9	12.7
Domestic debt	52.0	43.1	48.5	46.2	44.2	42.6	36.5	33.1
	(Percent of GDP)							
Total public and publicly guaranteed debt	12.0	9.7	10.1	11.5	13.2	15.4	19.0	26.6
External debt	5.7	5.5	5.2	6.2	7.4	8.9	12.1	17.8
Multilateral	2.4	2.8	3.4	3.9	4.6	4.7	5.0	5.9
Bilateral	2.9	2.8	1.8	1.9	2.4	3.0	5.1	7.7
Bilateral Paris Club	2.6	2.3	0.6	0.8	0.7	0.6	0.8	0.8
Bilateral non-Paris Club	0.4	0.4	1.2	1.1	1.7	2.4	4.4	6.9
Commercial	0.4	0.0	0.0	0.4	0.4	0.7	0.9	0.8
Guaranteed	...	...	...	...	...	0.5	1.1	3.4
Domestic debt	6.2	4.2	4.9	5.3	5.9	6.6	6.9	8.8
Memorandum item:								
Nominal GDP (CFAF billions)	9,792	10,444	11,040	11,700	12,546	13,515	14,603	15,607

Source: Cameroonian authorities; and IMF staff estimates.

¹⁴ The draft DSA was discussed with the Cameroonian authorities in the course of the 2015 Article IV consultation. This 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 November 7, 2013.

¹⁵ External debt is defined as debt owed to non-residents and issued in a foreign currency. In the case of arrears to suppliers, these are defined as overdue payment obligations that have not been fulfilled before the standard 90-day settlement period for such obligations.

2. Cameroon's total public debt was estimated at 26.6 percent of GDP at end-2014. This compares to a ratio of below 10 percent of GDP in 2008, following the completion of the enhanced Heavily Indebted Poor Countries and Multilateral Debt Relief Initiatives. Total public and publicly guaranteed debt (PPG) increased sharply in 2014, as the government sought financing to support its expanding public investment program. PPG accounted for the most significant share of total debt, with private, non-guaranteed debt representing only 5 percent thereof. PPG is broadly made up of two thirds external and one third domestic debt.

3. The accumulation of non-concessional external debt was the main driver of the increase in PPG. New non-concessional PPG was mainly driven by the strong increase in new bilateral disbursements from non-Paris Club (NPC) members. These accounted for two thirds of all disbursements in 2014. In terms of disbursed and outstanding debt, new NPC loans increased from 4.3 percent of PPG in 2008 to 25.9 percent of PPG in 2014.

4. Cameroon's debt management capacity has shown some improvement in recent years, but critical shortcomings remain. IMF technical assistance has focused on rationalizing debt management functions to ensure clearer roles and responsibilities. Since the last DSA, a National Debt Committee, chaired by the Minister of Finance, has started reviewing externally financed project proposals. However, the contracting of external debt is still undertaken by both the Ministry of Finance and the Ministry of Economy, Planning, and Regional Development. At the same time, the timely tracking of loan disbursements is inadequate, often leading to significant belated upward adjustments in external debt figures.

ASSUMPTIONS

5. Compared to the 2014 DSA, the macroeconomic framework reflects (i) a significant decline in export revenues owing, inter alia, to the slump in world oil prices; and (ii) a strong rise in foreign financing of capital investment. These developments result in a less favorable outlook for exports, fiscal revenue, and debt accumulation (Text Table 2 and Box 1).

- The lower outlook for exports compared to the 2014 DSA affects both oil and non-oil developments. For oil exports, this reflects the expected decline in oil production, as indicated by the authorities, combined with the much lower oil price in the 2014 DSA.¹⁶ For non-oil exports, volume growth is expected to remain strong, albeit lower than the projections made in the 2014 DSA, reaching 6.5 percent per annum in the medium term. The downward revision in projections for non-oil export growth reflects weaker prospects in some key export markets (e.g., China and Europe).
- The profile of external debt accumulation reflects the authorities' commitment to accelerate their program of externally financed public investments significantly. The increase in debt is expected

¹⁶ The assumptions for the 2015 DSA for the growth of oil export volumes are more favorable than the authorities' own projections, which envisage a sharp decline starting in 2017. The 2015 DSA also incorporates liquefied natural gas (LNG) exports from 2018 onward, with volumes in line with the authorities' forecast, but with lower prices (based on prices on the largest LNG market—New Orleans, USA).

to be mainly sourced from the CFAF 2,800 billion stock of signed but as-yet undisbursed loans, which have mostly been contracted on non-concessional terms.

Against this background, growth in the medium-term is expected to be supported by continued strong investment expenditure; the coming on stream of large infrastructure projects; and strong activity in agriculture, energy generation, and transport.

6. The main financing assumptions remain broadly unchanged, including the terms of new external borrowing. The discount rate is 5 percent, as approved by the IMF and World Bank Executive Boards in October 2013. Some contingent liabilities in public enterprises have been left out because their overall amounts remain hard to quantify. Fiscal financing gaps are assumed to be financed by borrowing, which in turn leads to an accumulation of domestic debt. The latter, however, does not come into play when assessing the risk of external debt distress.

Text Table 2. Cameroon: Key Macroeconomic Assumptions, 2014–35

	2014-15 ¹	2016-20 ²	2021-35 ³
Real GDP growth (percent)			
DSA 2015	5.9	5.2	4.8
DSA 2014	5.5	5.5	5.5
Total revenue excluding grants (percent of GDP)			
DSA 2015	17.7	16.6	15.6
DSA 2014	18.3	17.7	16.4
Exports of goods and services (percent of GDP)			
DSA 2015	25.6	21.7	15.8
DSA 2014	27.1	25.5	24.2
Oil price (US dollars per barrel)			
DSA 2015	69.2	56.3	61.1
DSA 2014	108.0	93.3	91.7

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

¹ 2014 DSA referred to periods 2013–14.

² 2014 DSA referred to periods 2015–19.

³ 2014 DSA referred to periods 2020–34.

7. Some assumptions have been adjusted marginally. The DSA assigns a larger role to creditors whose loans are non-concessional, especially in 2015–17, given specific information on undisbursed loans. New non-concessional creditors, such as China, the IBRD, and the African Development Bank, are projected to play larger roles than in the past. Non-concessional external borrowing is projected to exceed 80 percent of new external borrowing in 2015 and its share continues to rise throughout the forecast period (Text Table 3). The projected financing gaps are assumed to bear a positive interest rate of 1.5 percent on the resulting domestic debt.

Box 1. Cameroon: Macroeconomic Assumptions for the Baseline Scenario¹

Medium Term, 2016–20

Real GDP growth is projected to average of 5.2 percent in the medium term, supported by a strong domestic demand and large public investments. Annual inflation is projected to remain low, at around 2 percent, in line with historical trends and below the CEMAC convergence criterion.

The revenue-to-GDP ratio is projected to decline over the medium term, from 17.4 percent of GDP in 2015 to 16.6 percent of GDP in 2020. Oil prices are expected to stabilize at about US\$60 per barrel in the medium term. The technology used to increase aging well production is more expensive and will reduce oil revenue in proportion.

The external current account deficit is projected to remain marginally above 5 percent of GDP in 2016–20, as the economy adjusts to the terms-of-trade shock experienced in 2015.² This reflects, in volume terms, both falling oil exports and a slowdown in imported equipment goods for infrastructure projects, as the public investment program slows down. Despite strong volume growth, non-oil export proceeds are expected to be held back by low prices for traditional exports. As before, the current account deficit is expected to be financed through external public borrowing and other private capital inflows.

Long Term, 2021–35

Real GDP growth is projected to average 4.8 percent in the long term, as public investment slows down.

The revenue-to-GDP ratio is projected to decrease from 16.9 percent of GDP in 2021 to 14.9 percent of GDP in 2035. This trend assumes a decline in oil revenue with the gradual depletion of oil reserves, while non-oil revenue is sustained by improved revenue collection.

The external current account deficit is projected to average about 4.6 percent of GDP in 2021–35. This reflects slower growth in imports, in line with the lower public investment. Growth in exports of goods is projected to decline, reflecting falling oil production, which is only partially offset by growth in non-oil exports and exports of services.

¹ The baseline scenario uses the latest IMF World Economic Outlook (WEO) assumptions (August 2015).

² The outlook for exports is adversely affected by the substantial terms-of-trade shock experienced by Cameroon in 2015. In addition to the decline in the price of oil, prices for most of Cameroon's traditional exports (wood, coffee, etc.) also declined. Thus, despite strong volume growth for both oil and non-oil exports, overall exports of goods are projected to decrease by 6.5 percent in value terms in 2015. These trends are accentuated by exchange rate movements, which further reinforce the decline in exports when calculated in US dollar terms. The projections incorporate further declines in prices in 2016 and beyond for some non-oil exports in line with the WEO.

Text Table 3. Cameroon: New External Commitments by Concessionality Level, 2014–35
(CFAF billions, unless otherwise stated)

	2014	2015	2016	2020	2025	2030	2035	Average 2016–20 ¹	Average 2021–35 ²
New borrowing, 2014 DSA ³	574	591	471	520	728	985		495	852
Concessional	170	171	190	234	321	423		201	370
Percent of total	30	29	40	45	44	43		41	43
Non-concessional	404	420	281	286	407	561		295	482
Percent of total	70	71	60	55	56	57		59	57
New borrowing, 2015 DSA ³	677	768	898	728	871	1,126	1,505	830	1,053
Concessional	132	141	155	104	113	132	173	129	128
Percent of total	20	18	17	14	13	12	11	16	12
Non-concessional	545	627	743	624	758	994	1,333	701	924
Percent of total	80	82	83	86	87	88	89	84	88

Sources: IMF and World Bank staff estimates and projections.

¹ 2014 DSA referred to 2015–19.

² 2014 DSA referred to 2020–34.

³ Includes external borrowing by public enterprises.

EXTERNAL DEBT SUSTAINABILITY

8. An assessment of public sector performance, based on the World Bank Country Policy and Institutional Assessment (CPIA), puts Cameroon in the category of weak policy and institutional capacity. In line with the standard approach for the LIC DSA, the critical sustainability thresholds depend on the CPIA. Cameroon's rating of 3.21 on a scale of 1 (low) to 6 (high) has remained stable in the past three years. It is better than the Economic and Monetary Community of Central Africa (CEMAC) average (2.9) and in line with the sub-Saharan African (SSA) average. The specific thresholds for this category are a (i) present value (PV) of debt-to-exports ratio of 100 percent; (ii) PV of the debt-to-revenue ratio of 200 percent; (iii) PV of the debt service-to-exports ratio of 30 percent; (iv) debt service-to-exports ratio of 15 percent; and (v) debt service-to-revenue ratio of 18 percent (Text Table 4).

9. The baseline scenario results in the breach of the PV of the debt-to-exports ratio in 2021. This breach occurs relatively early, is sustained over time, and sees the ratio exceeding 130. This reflects the combined effects of a further acceleration in external debt accumulation along with weaker export earnings. The latter is affected by the substantial decline the prices of Cameroon's main exports compared to the 2014 DSA. The increasing recourse to non-concessional external financing also has an adverse impact on the outlook (Table 1, Panel c). A breach of one of the thresholds, as in this case, results in the categorization of debt sustainability as "high."

10. Standard stress tests result in the breach of the policy-dependent threshold for two ratios. Stress tests bring forward the breach of the PV of the debt-to-exports ratio to 2017 and result in an additional breach for the debt-service-to-exports ratio in 2023. This ratio is projected to exceed the 15 percent threshold in 2023 and remain above this level for the remainder of the forecast period.

Text Table 4. Cameroon: Baseline Debt Ratios, 2015–35

(Percent)

			Medium term	Long term
	Threshold	2015	2016–20	2021–35
Debt Sustainability Analysis, 2015				
External debt				
PV of debt-to-GDP	30	13.5	18.5	19.2
PV of debt-to-exports	100	56.4	85.8	122.6
PV of debt-to-revenue	200	77.8	111.7	123.6
Debt service-to-exports	15	4.4	6.4	11.1
Debt service-to-revenue	18	6.1	8.3	11.1
Public debt				
PV of debt-to-GDP	38	24.4	31.8	45.2
PV of debt-to-revenue		137.6	189.4	290.9
Debt service-to-revenue		17.9	26.7	70.9
	Threshold		Medium term	Long term
		2014	2015–19	2020–34
Debt Sustainability Analysis, 2014				
External debt				
PV of debt-to-GDP	30	10.2	12.9	13.5
PV of debt-to-exports	100	37.7	50.6	55.9
PV of debt-to-revenue	200	56.4	74.1	83.1
Debt service-to-exports	15	2.7	3.7	6.2
Debt service-to-revenue	18	4.0	5.5	9.2
Public debt				
PV of debt-to-GDP	38	19.5	29.0	50.9
PV of debt-to-revenue		105.1	164.3	313.6
Debt service-to-revenue		9.6	14.4	21.3

Sources: IMF and World Bank staff estimates and projections.

11. The authorities are considering a Eurobond issue, which would further increase Cameroon's risk of external debt distress. Preparations have been made to issue such a bond for an amount of US\$1.5 billion, which corresponds to about 5 percent of GDP.¹⁷ Because it would front-load the accumulation of new disbursed and outstanding debt, the proposed Eurobond would cause an even earlier breach of the policy-dependent threshold for the PV of the debt-to-exports ratio under the baseline scenario. At prevailing bond yield levels, debt sustainability would deteriorate. This assessment is reinforced when costs associated with derivative hedging instruments are factored in.

12. Downside risks dominate Cameroon's external debt outlook. Inadequate checks and balances in the contracting of new debt, combined with difficulties in tracking disbursements, have led to consistently higher actual external debt disbursement figures than had been projected initially. Moreover, any refinancing of external debt payments falling due with new external financing would add to the stock of such debt.

¹⁷ According to the authorities, possible terms of the Eurobond issue are a maturity of ten years; a fixed interest rate; and a bullet repayment in year ten.

PUBLIC SECTOR DEBT SUSTAINABILITY

13. In line with previous DSAs, public debt is projected to rise significantly faster than external debt, reflecting continued recourse to domestic financing. Domestic borrowing will also be needed to cover financing gaps, which are projected to persist over the medium and long terms. Against this background, the PV of debt-to-GDP ratio is projected to breach the policy dependent benchmark of 38 percent in 2024, whilst averaging over 45 percent of GDP in 2021–35. The ratio of debt service to revenue and the PV of debt-to-revenue show similar strongly rising trends. This serves to reinforce the conclusions of elevated debt distress from the analysis of external debt developments.

CONCLUSIONS

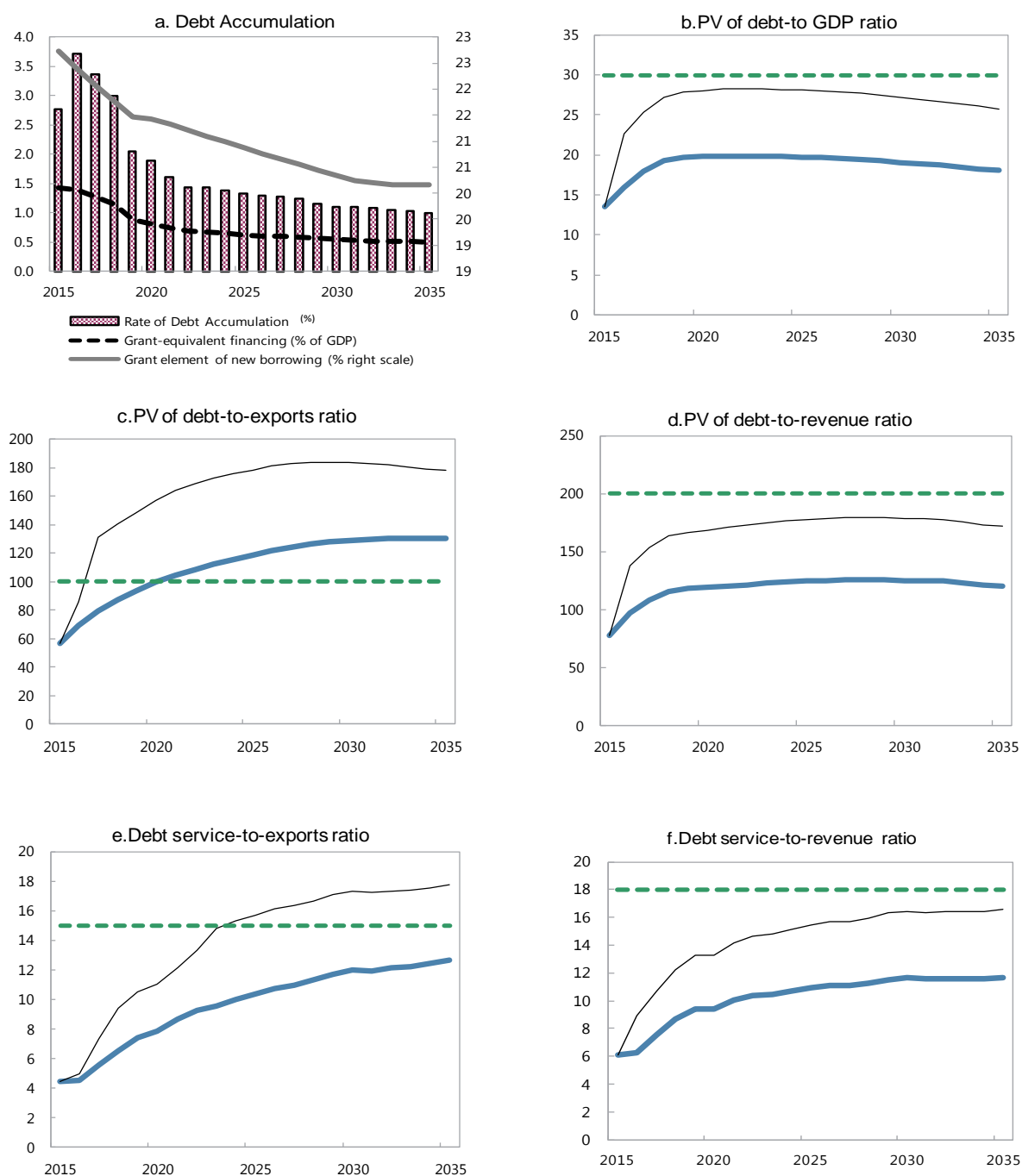
14. The acceleration in debt accumulation and the less favorable external environment give rise to an increase in the risk of external debt distress from “moderate” to “high.” This is the result of the breach of the policy-dependent threshold in the case of the PV of debt-to-exports ratio under the baseline scenario. This development highlights the growing risks associated with the rapid accumulation of both external and domestic debt against a background of a structural terms-of-trade shock. Although Cameroon’s current public debt ratio of 26.6 percent of GDP remains manageable, it is projected to double by 2030 on current trends. The less favorable outlook for oil prices compared to the previous DSA exacerbates the impact of the rising debt stock on key debt ratios. Moreover, increased reliance on external financing on non-concessional terms also entails higher debt service costs. These risks would manifest themselves yet more strongly in the event that the envisaged Eurobond issue goes ahead. Meanwhile, the projected outlook for domestic borrowing compounds the risk of debt distress, with the policy-dependent threshold for the PV of debt-to-GDP ratio also breached under the baseline scenario.

15. Staffs consider that a reorientation of debt policy is warranted in order to take account of the less favorable external environment and guard against vulnerabilities. Recommendations to improve debt sustainability and to reduce the risk of debt distress include:

- Anchoring fiscal policy to a pace of debt accumulation that does not cause a breach of any policy-dependent threshold under the baseline scenario;
- Making greater use of concessional borrowing;
- Monitoring debt developments more closely, especially for externally financed projects; and
- Implementing policies to improve debt management rigorously.

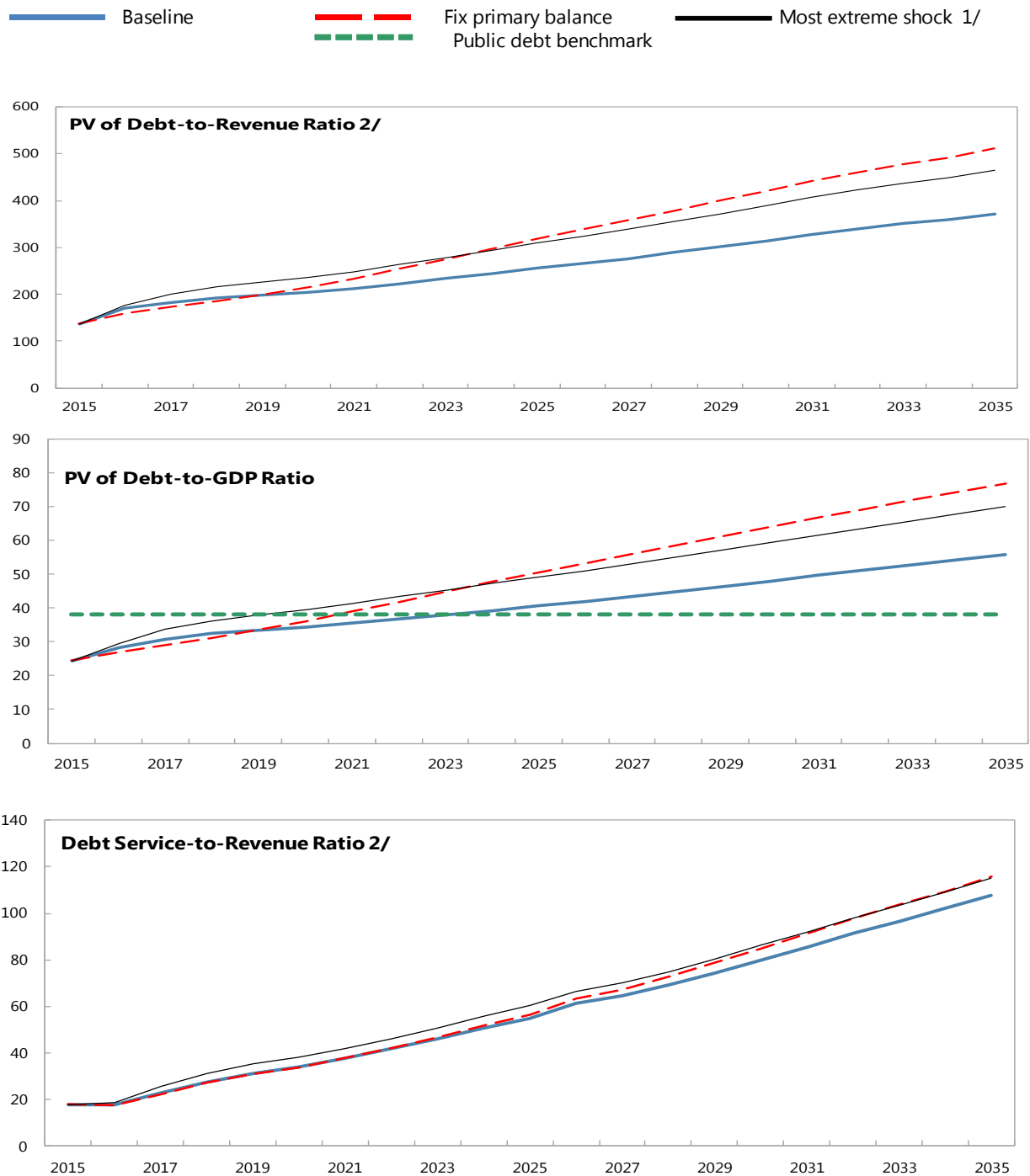
16. The authorities recognized the risks of debt distress and acknowledged the importance of enhanced debt management and the need to monitor debt developments more closely. At the same time, however, they considered that a more robust growth response than the one projected in the DSA from the public investment program should result in a more benign outlook for debt sustainability. They also undertook to make more progress in implementing technical assistance recommendations for debt management and budget reforms.

Figure 1. Cameroon: Indicators of Public and Publicly Guaranteed External Debt under Alternative Scenarios. 2015–35 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2025. In figure b, it corresponds to an exports shock; in c. to an 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 2. Cameroon: Indicators of Public Debt Under Alternative Scenarios, 2015–35 1/

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2025.

2/ Revenues are defined inclusive of grants.

Table 1. Cameroon: Public Debt Sustainability, Baseline Scenario, 2012–35

(Percent of GDP unless otherwise stated)

	Actual			Average	5/ Standard Deviation	Estimate		Projections							2021-35
	2012	2013	2014			2015	2016	2017	2018	2019	2020	2015-20 Average	2025	2035	Average
Public sector debt 1/	15.4	19.2	26.6			32.6	36.8	39.3	41.2	41.9	42.5	40.3	47.9	62.0	52.2
<i>of which: foreign-currency denominated</i>	8.9	12.2	17.8			21.7	24.5	26.6	28.0	28.2	28.1	27.1	27.1	24.2	26.2
Change in public sector debt	2.2	3.7	7.4			6.0	4.2	2.5	1.9	0.8	0.6		1.1	1.5	
Identified debt-creating flows	1.1	2.8	...			6.6	4.7	3.1	2.4	1.2	0.8		1.2	2.0	
Primary deficit	1.3	3.6	4.4	-3.2	11.0	4.9	6.7	5.1	4.5	3.3	3.0	4.6	2.7	3.2	2.9
Revenue and grants	17.9	18.1	18.4			17.8	16.7	16.7	16.8	16.9	16.8		15.9	15.0	
<i>of which: grants</i>	0.4	0.3	0.3			0.4	0.3	0.2	0.2	0.2	0.2		0.1	0.0	
Primary (noninterest) expenditure	19.2	21.8	22.8			22.6	23.4	21.8	21.4	20.1	19.7		18.6	18.2	
Automatic debt dynamics	-0.6	-1.0	...			1.7	-1.9	-1.9	-2.1	-2.0	-2.2		-1.6	-1.1	
Contribution from interest rate/growth differential	-0.6	-0.6	...			-1.5	-1.8	-1.7	-1.9	-1.8	-1.8		-1.5	-1.1	
<i>of which: contribution from average real interest rate</i>	0.0	0.2	...			-0.1	0.0	0.1	0.1	0.2	0.3		0.7	1.5	
<i>of which: contribution from real GDP growth</i>	-0.6	-0.8	...			-1.5	-1.8	-1.8	-2.0	-2.0	-2.1		-2.2	-2.6	
Contribution from real exchange rate depreciation	-0.1	-0.4	...			3.2	-0.1	-0.3	-0.2	-0.2	-0.4		...	...
Other identified debt-creating flows	0.4	0.2	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Debt relief (HIPC and other)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.4	0.2	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	1.1	0.9	...			-0.5	-0.5	-0.6	-0.6	-0.4	-0.2		0.0	-0.6	
Other Sustainability Indicators															
PV of public sector debt	...	...	18.2			24.4	28.3	30.6	32.4	33.4	34.2	31.8	40.6	55.9	45.2
<i>of which: foreign-currency denominated</i>	...	...	9.4			13.5	16.0	17.9	19.2	19.7	19.8		19.7	18.1	
<i>of which: external</i>	...	...	9.4			13.5	16.0	17.9	19.2	19.7	19.8		19.7	18.1	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 2/	2.9	5.1	6.1			8.0	9.6	8.9	9.2	8.5	8.6		11.5	19.4	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	99.3			137.2	168.8	183.1	192.8	198.2	203.9	189.4	255.0	371.9	290.9
PV of public sector debt-to-revenue ratio (in percent)	...	...	100.8			140.2	171.7	185.8	195.1	200.2	205.8	191.7	256.4	372.8	292.1
<i>of which: external 3/</i>	...	...	52.2			77.8	97.2	108.5	115.7	117.9	119.1		124.5	120.4	
Debt service-to-revenue and grants ratio (in percent) 4/	8.9	8.4	9.2			17.9	17.7	22.7	27.7	31.4	33.9	26.7	55.0	107.7	70.9
Debt service-to-revenue ratio (in percent) 4/	9.1	8.5	9.4			18.3	18.0	23.1	28.0	31.7	34.2		55.3	108.0	
Primary deficit that stabilizes the debt-to-GDP ratio	-0.9	-0.1	-3.0			-1.1	2.5	2.5	2.7	2.5	2.4		1.6	1.7	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	4.6	5.5	6.0	3.7	1.3	6.0	5.9	5.0	5.4	5.2	5.2	5.4	4.9	4.6	4.8
Average nominal interest rate on forex debt (in percent)	2.4	3.2	1.6	1.9	0.7	1.5	2.0	2.3	2.5	2.6	2.6	2.3	2.8	3.1	2.9
Average real interest rate on domestic debt (in percent)	-0.5	0.2	-0.2	-1.2	1.2	-0.2	-0.3	0.1	0.2	0.6	1.0	0.2	2.4	3.7	2.8
Real exchange rate depreciation (in percent, + indicates depreciation)	-0.7	-4.3	2.9	-1.0	6.9	19.4	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	3.0	1.4	1.9	2.7	1.0	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0
Growth of real primary spending (deflated by GDP deflator, in percent)	-0.8	19.4	11.0	3.0	6.7	5.0	8.8	-2.2	3.2	-0.9	3.3	2.9	4.0	4.4	4.3
Grant element of new external borrowing (in percent)	...	...	...	...	...	22.7	22.4	22.1	21.8	21.5	21.4	22.0	20.9	20.2	20.6

Sources: Country authorities; and staff estimates and projections.

1/ Public sector debt refers to net debt of the central government, augmented with identified publicly guaranteed debt in public enterprises.

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 2. Cameroon: Sensitivity Analysis for Key Indicators of Public Debt, 2015–35

	Projections							
	2015	2016	2017	2018	2019	2020	2025	2035
PV of Debt-to-GDP Ratio								
Baseline	24	28	31	32	33	34	41	56
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	24	21	17	13	9	6	-7	-27
A2. Primary balance is unchanged from 2015	24	27	29	31	34	36	51	77
A3. Permanently lower GDP growth 1/	24	28	31	33	34	35	42	62
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-20:	24	30	34	36	38	39	49	70
B2. Primary balance is at historical average minus one standard deviations in 2016-201	24	29	34	35	36	37	42	56
B3. Combination of B1-B2 using one half standard deviation shocks	24	25	26	29	31	32	42	63
B4. One-time 30 percent real depreciation in 2016	24	33	35	36	37	37	43	58
B5. 10 percent of GDP increase in other debt-creating flows in 2016	24	36	38	40	40	41	46	59
PV of Debt-to-Revenue Ratio 2/								
Baseline	137	170	183	193	198	204	255	372
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	137	123	100	76	55	36	-43	-179
A2. Primary balance is unchanged from 2015	137	160	174	186	199	214	318	510
A3. Permanently lower GDP growth 1/	137	169	183	193	199	206	265	415
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-20:	137	177	201	215	225	235	309	465
B2. Primary balance is at historical average minus one standard deviations in 2016-201	137	175	203	211	215	219	265	373
B3. Combination of B1-B2 using one half standard deviation shocks	137	151	155	171	181	191	264	420
B4. One-time 30 percent real depreciation in 2016	137	199	209	215	218	221	268	386
B5. 10 percent of GDP increase in other debt-creating flows in 2016	137	218	230	237	240	243	287	390
Debt Service-to-Revenue Ratio 2/								
Baseline	18	18	23	28	31	34	55	108
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	18	18	22	25	28	30	47	98
A2. Primary balance is unchanged from 2015	18	18	22	27	31	34	57	116
A3. Permanently lower GDP growth 1/	18	18	23	28	31	34	56	113
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-20:	18	18	24	29	34	36	60	118
B2. Primary balance is at historical average minus one standard deviations in 2016-201	18	18	23	28	32	34	56	108
B3. Combination of B1-B2 using one half standard deviation shocks	18	18	23	27	31	34	56	114
B4. One-time 30 percent real depreciation in 2016	18	19	26	31	35	38	60	115
B5. 10 percent of GDP increase in other debt-creating flows in 2016	18	18	24	30	33	35	58	109

Sources: Country authorities; and staff estimates and projections.

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

2/ Revenues are defined inclusive of grants.

Table 3a. Cameroon: External Debt Sustainability Framework, Baseline Scenario, 2015–35
(Percent of GDP unless otherwise indicated)

	Actual			Historical Average ^{6/}	Standard Deviation ^{6/}	Projections						2015-2035			2021-2035 Average
	2012	2013	2014			2015	2016	2017	2018	2019	2020	Average	2025	2035	
External debt (nominal) 1/	8.9	12.2	17.8			21.7	24.5	26.6	28.0	28.2	28.1	27.1	27.1	24.2	26.2
<i>of which: public and publicly guaranteed (PPG)</i>	8.9	12.2	17.8			21.7	24.5	26.6	28.0	28.2	28.1		27.1	24.2	
Change in external debt	1.5	3.3	5.6			4.0	2.8	2.0	1.4	0.2	-0.1		-0.2	-0.3	
Identified net debt-creating flows	1.8	2.5	2.9			2.7	3.3	2.8	2.2	1.0	0.8		0.3	0.2	
Non-interest current account deficit	3.4	3.8	4.2	1.9	1.6	4.8	4.9	4.7	4.6	4.6	4.5		4.4	3.0	3.9
Deficit in balance of goods and services	2.9	3.3	3.4			3.8	4.1	4.2	4.1	4.2	4.2		4.0	2.6	
Exports	27.9	27.2	27.2			24.0	23.0	22.5	22.1	21.1	19.8		16.6	13.8	15.8
Imports	30.8	30.4	30.6			27.8	27.1	26.7	26.2	25.3	24.0		20.6	16.4	
Net current transfers (negative = inflow)	-1.0	-1.1	-1.1	-1.5	0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7		-0.6	-0.6	-0.6
<i>of which: official</i>	-0.3	-0.3	-0.3			0.0	0.0	0.0	0.0	0.0	0.0		-0.1	-0.1	
Other current account flows (negative = net inflow)	1.5	1.6	2.0			1.7	1.5	1.3	1.2	1.1	1.1		1.1	1.0	
Net FDI (negative = inflow)	-1.8	-0.7	-0.6	-3.7	7.9	-1.3	-1.0	-1.4	-1.7	-2.9	-3.1		-3.5	-2.5	-3.2
Endogenous debt dynamics 2/	0.2	-0.6	-0.7			-0.9	-0.6	-0.6	-0.7	-0.7	-0.7		-0.5	-0.3	
Contribution from nominal interest rate	0.2	0.3	0.2			0.3	0.4	0.5	0.6	0.7	0.7		0.7	0.7	
Contribution from real GDP growth	-0.3	-0.4	-0.7			-1.2	-1.0	-1.1	-1.3	-1.4	-1.4		-1.3	-1.0	
Contribution from price and exchange rate changes	0.4	-0.4	-0.2			...	...	...	...	...	...		...	...
Residual (3-4) 3/	-0.4	0.8	2.7			1.3	-0.5	-0.7	-0.8	-0.8	-0.9		-0.5	-0.5	
<i>of which: exceptional financing</i>	0.3	-0.3	0.2			-0.2	-0.2	-0.5	-0.7	-0.9	-0.8		-0.4	-0.2	
PV of external debt 4/	...	...	9.4			13.5	16.0	17.9	19.2	19.7	19.8	18.5	19.7	18.1	19.2
In percent of exports	...	...	34.7			56.4	69.5	79.5	87.0	93.3	99.9	85.8	118.6	130.7	122.6
PV of PPG external debt	...	...	9.4			13.5	16.0	17.9	19.2	19.7	19.8		19.7	18.1	
In percent of exports	...	...	34.7			56.4	69.5	79.5	87.0	93.3	99.9		118.6	130.7	
In percent of government revenues	...	...	52.2			77.8	97.2	108.5	115.7	117.9	119.1	111.7	124.5	120.4	123.6
Debt service-to-exports ratio (in percent)	1.7	1.9	2.5			4.4	4.5	5.5	6.5	7.4	7.9		10.4	12.7	
PPG debt service-to-exports ratio (in percent)	1.7	1.9	2.5			4.4	4.5	5.5	6.5	7.4	7.9	6.4	10.4	12.7	11.1
PPG debt service-to-revenue ratio (in percent)	2.6	2.8	3.8			6.1	6.3	7.6	8.7	9.4	9.4	8.3	10.9	11.7	11.1
Total gross financing need (Billions of U.S. dollars)	0.6	1.0	1.4			1.3	1.5	1.5	1.6	1.3	1.3		1.5	2.7	
Non-interest current account deficit that stabilizes debt ratio	2.0	0.5	-1.4			0.9	2.1	2.7	3.2	4.3	4.7		4.6	3.3	
Key macroeconomic assumptions															
Real GDP growth (in percent)	4.6	5.5	6.0	3.7	1.3	5.9	5.2	5.0	5.4	5.2	5.2	5.3	4.9	4.6	4.8
GDP deflator in US dollar terms (change in percent)	-4.8	4.8	1.9	3.5	5.4	-14.7	2.4	3.1	3.0	2.8	3.5	0.0	2.0	2.1	2.0
Effective interest rate (percent) 5/	2.4	3.2	1.6	1.8	0.7	1.5	2.0	2.3	2.5	2.6	2.6	2.3	2.8	3.1	2.9
Growth of exports of G&S (US dollar terms, in percent)	-2.0	7.8	8.1	10.5	17.2	-20.4	3.4	5.9	6.7	3.2	2.5	0.2	3.9	4.9	4.4
Growth of imports of G&S (US dollar terms, in percent)	-0.7	9.2	8.6	10.6	14.6	-18.0	5.2	6.5	6.8	4.3	3.4	1.3	4.2	4.0	4.3
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	22.7	22.4	22.1	21.8	21.5	21.4	22.0	20.9	20.2	20.6
Government revenues (excluding grants, in percent of GDP)	17.5	17.8	18.1			17.4	16.5	16.5	16.6	16.7	16.6		15.8	15.0	15.6
Aid flows (in Billions of US dollars) 7/	0.5	0.4	0.4			0.3	0.4	0.3	0.3	0.3	0.3		0.2	0.4	
<i>of which: Grants</i>	0.1	0.1	0.1			0.1	0.1	0.1	0.1	0.1	0.1		0.0	0.0	
<i>of which: Concessional loans</i>	0.4	0.3	0.3			0.2	0.3	0.3	0.2	0.2	0.2		0.2	0.3	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			1.4	1.4	1.3	1.1	0.9	0.8		0.6	0.5	0.6
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			28.7	26.5	26.0	25.3	25.4	25.2		23.3	21.4	22.8
Memorandum items:															
Nominal GDP (Billions of US dollars)	26.5	29.3	31.6			28.6	30.8	33.3	36.2	39.1	42.6		60.2	116.7	
Nominal dollar GDP growth	-0.5	10.6	8.0			-9.7	7.7	8.3	8.6	8.2	8.9	5.3	7.1	6.7	6.9
PV of PPG external debt (in Billions of US dollars)	...	...	3.0			3.9	4.9	6.0	7.0	7.7	8.4		12.0	21.2	
(Pvt-Pvt-1)/GDPI-1 (in percent)	...	...	...			2.8	3.7	3.4	3.0	2.0	1.9	2.8	1.3	1.0	1.2
Gross workers' remittances (Billions of US dollars)	0.4	0.5	0.5			0.4	0.5	0.5	0.5	0.5	0.6		0.7	1.2	
PV of PPG external debt (in percent of GDP + remittances)	...	...	9.3			13.3	15.8	17.6	19.0	19.4	19.5		19.5	17.9	
PV of PPG external debt (in percent of exports + remittances)	...	...	32.7			52.9	65.2	74.6	81.8	87.6	93.5		110.6	121.7	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	2.4			4.2	4.2	5.2	6.1	7.0	7.4		9.7	11.8	

Sources: Country authorities; and staff estimates and projections

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - p(1+g)]/(1+g+p+gp)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and p = 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, 2015–35

(Percent)

	Projections							
	2015	2016	2017	2018	2019	2020	2025	2035
PV of debt-to-GDP+remittances ratio								
Baseline	13	16	18	19	19	20	19	18
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	13	11	9	7	5	3	-4	-10
A2. New public sector loans on less favorable terms in 2015-2035 2/	13	17	20	22	23	24	27	30
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	13	16	19	20	20	21	21	19
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	13	18	23	24	25	25	23	19
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	13	16	19	21	21	21	22	20
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	13	20	26	27	27	27	25	20
B5. Combination of B1-B4 using one-half standard deviation shocks	13	17	22	23	24	24	23	20
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	13	22	25	27	27	27	28	25
PV of debt-to-exports+remittances ratio								
Baseline	53	65	75	82	88	94	111	122
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	53	46	38	29	22	14	-25	-68
A2. New public sector loans on less favorable terms in 2015-2035 2/	53	70	85	96	106	116	153	202
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	53	65	75	82	88	94	111	123
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	53	80	122	130	137	145	163	163
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	53	65	75	82	88	94	111	123
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	53	80	107	116	122	129	142	136
B5. Combination of B1-B4 using one-half standard deviation shocks	53	66	86	97	103	110	127	133
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	53	65	75	82	88	94	111	123
PV of debt-to-revenue ratio								
Baseline	78	97	109	116	118	119	125	120
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	78	68	55	41	29	18	-28	-68
A2. New public sector loans on less favorable terms in 2015-2035 2/	78	105	123	136	142	147	172	200
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	78	100	114	122	124	126	132	128
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	78	109	143	148	149	149	149	131
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	78	102	119	127	130	131	138	133
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	78	122	159	164	164	164	160	135
B5. Combination of B1-B4 using one-half standard deviation shocks	78	106	135	142	144	144	148	136
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	78	137	153	164	167	168	177	172

Table 3b. Cameroon: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2015–35 (concluded)

(Percent)

Debt service-to-exports ratio								
Baseline	4	5	6	7	7	8	10	13
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	4	5	5	5	5	5	2	-4
A2. New public sector loans on less favorable terms in 2015-2035 2/	4	5	5	6	7	7	12	19
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	4	5	6	7	7	8	10	13
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	4	5	7	9	11	11	16	18
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	4	5	6	7	7	8	10	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	4	5	6	8	9	9	14	15
B5. Combination of B1-B4 using one-half standard deviation shocks	4	5	6	7	8	9	12	14
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	4	5	6	7	7	8	10	13
Debt service-to-revenue ratio								
Baseline	6	6	8	9	9	9	11	12
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	6	6	7	7	7	6	2	-3
A2. New public sector loans on less favorable terms in 2015-2035 2/	6	6	7	8	9	9	13	17
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	6	6	8	9	10	10	12	12
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	6	6	8	10	11	11	13	13
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	6	7	8	10	10	10	12	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	6	6	8	11	11	11	14	14
B5. Combination of B1-B4 using one-half standard deviation shocks	6	7	8	10	11	11	13	13
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	6	9	11	12	13	13	15	17
<i>Memorandum item:</i>								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	16	16	16	16	16	16	16	16
Sources: Country authorities; and staff estimates and projections.								
1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.								
2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline, while grace and maturity periods are the same as in the baseline.								
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).								
4/ Includes official and private transfers and FDI.								
5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.								
6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.								