

CONGO: JOINT BANK-FUND DEBT SUSTAINABILITY ANALYSIS¹

Congo's debt level and debt service obligations have increased recently after the decrease in debt burden stemming from HIPC relief in 2006. Two scenarios elaborated in the DSA suggest that the probability of debt distress under the continuation of current policies is high unless a substantial fiscal adjustment is undertaken. Based on existing debt ratios and on this analysis, the Republic of Congo is rated as at a high risk of debt distress, taking into account full unconditional delivery of HIPC and MDRI debt relief. The risk would be higher if the analysis assumed only interim assistance.

Background

1. **The sustainability of Congo's external and total public debt is assessed using the Fund-Bank debt sustainability framework for low income countries.** The previous DSA was carried out in the context of the HIPC decision point in March 2006, using end-2004 outstanding debt data. This DSA assumes unconditional delivery of HIPC and MDRI debt relief in 2009.

2. **In 2006, total external debt is estimated at \$6.5 billion (text table) or 75 percent of GDP.**² The bulk of this debt is owed to bilateral official creditors and commercial creditors, the shares of which represents 42 and 50 percent of outstanding debt, respectively; multilateral creditors only account for 8 percent. Debt owed to Paris Club creditors fell as a share of the total from 55 percent in 2004 to 35 percent in 2006, reflecting the granting of traditional debt relief in 2005 as well as interim debt relief received from some creditors in 2006, following the HIPC decision point.

3. **New borrowing has contributed to a significant increase in the stock of debt and in the debt service burden.** Congo contracted a loan for \$551 million from China on concessional terms in December 2005, which adds to a previously unrecorded 2003 loan of \$238 million, with repayments coming due in 2008. In addition, in June 2006 the Congolese government signed a non-concessional loan from China in the amount of US\$32 million and a Framework Agreement that allows for further borrowing. Financial details of this agreement have not yet been communicated to IMF staff.

¹ This DSA was prepared jointly by the World Bank and IMF staff.

² The analysis is based on end-June 2006 debt data provided by the authorities during the October 2006 mission. The data at end-2006 are therefore preliminary staff estimates.

Table 1. Republic of Congo: External Debt at end-2006

	Stock of Debt		Full Debt Relief Delivery	
	Millions of dollars	Percent of total debt	Millions of dollars	Percent of total debt
Total	6,480	100	5,698	100
Multilateral debt	501	8	389	7
Bilateral debt	2,757	42	2,746	48
Paris Club	2,292	35	2,292	40
Non-Paris Club	465	7	432	8
Total commercial debt ¹	3,222	50	2,563	45
Memorandum items:				
Oil Stabilization Fund ²	1,031			
Of which: share of litigating debt (percent)	103			

Source: Fund staff estimates.

¹ London Club reconciled figures as of March 2006.

² End-September 2006.

4. **External debt service data used for the purpose of this DSA reflects full delivery of traditional debt relief, and additional HIPC debt relief on Cologne terms as of 2006** (Table 1). Multilateral debt service payments are those included in the March 2006 HIPC decision-point document. Bilateral and commercial debt service payments are calculated taking into account: (i) the HIPC decision point in March 2006; and (ii) an assumed completion point being reached in 2009. Assuming full delivery of debt relief in 2006, the stock of debt is estimated to be \$5.7 billion. In contrast, if debt relief from bilateral non-Paris Club or commercial creditors is excluded, the stock of debt at end-2006 rises to \$6.5 billion.

5. **Based on the information provided by the authorities, external debt service payments on new borrowing included in the analysis are:**

- a \$238 million loan signed in 2003, with a maturity 15 years, 0.2 percent interest, and a 5-year grace period;
- a \$552 million loan signed in December 2005, with a 17-year maturity, 0.2 percent interest, and a 5-year grace period;
- a non-concessional loan for Renminbi 250 million with a maturity of 20 years, an interest rate of 2 percent (plus a management fee of 3.5 percent paid upfront in 2006 and a yearly commitment fee of 0.3 percent), and an 8-year grace period;
- a \$6 million loan signed in 2005 with BADEA, with a maturity of 20 years, an interest rate of 1 percent and a grace period of 10 years.

In addition, it is assumed that the Framework Agreement signed with China in June 2006 will result in an increase of debt service payments of \$3.4 million (equivalent to 10 percent of the projected new debt service payments with non-Paris Club creditors for the period 2011–35)³.starting in 2011, reflecting a 5-year grace period and repayments ending in 2025. This latter assumption does not affect the conclusions of the analysis.

6. **As of end-2006, domestic debt amounted to CFAF 345 billion (8.9 percent of GDP), based on the information provided by the Congolese authorities.** This comprises social debt (including pensions) of CFAF 266 billion, commercial debt of CFAF 75 billion, and public enterprise debt of CFAF 4 billion. Arrears make up 99 percent of the stock of domestic debt. Domestic debt at end-2006 was CFAF 175 billion lower than at end-2005, mostly due to the cancellation of commercial debt for CFAF 57 billion, payments of arrears on social debt (including pensions) for 57 billion, and payments to local banks.

7. **The analysis develops two scenarios:**

- a non-adjustment scenario, which assumes that the authorities will continue with their current fiscal policies, maintaining the non oil primary deficit at 44.2 percent of non oil GDP in 2006 throughout the projection period; and
- a baseline scenario that targets a trend decline of the non oil primary deficit to 24 percent of non oil GDP in 2012, and to 13 percent by the end of the projection period.

8. **The macroeconomic assumptions underlying the two scenarios for the period 2007-12 are shown in Table 2.** Over the longer term, real GDP is projected to grow annually by around 5 percent, while inflation is expected to average 3 percent. Exports are projected to grow by around 3 percent a year. A cautious approach to oil price projections is applied by subtracting a \$10 prudence factor from the \$63 per barrel projected by the WEO. Both scenarios assume the same accumulation of gross international reserves. At the same time, oil production is assumed to decline starting in 2011. In the non-adjustment scenario, the financing gap is assumed to be financed externally at non-concessional terms as commercial debt. Non-concessional loans are assumed to pay an interest rate of 5 percent, have a 1 year grace period, and a maturity of 10 years. These terms are the same as those assumed in the HIPC decision-point document. Domestic debt is assumed to be fully amortized in the next ten years: commercial debt is assumed to be paid back within 5 years; and social debt is assumed to be amortized over 9 years, with payments of CFAF 30 billion per year.

³ Average new debt service payments to non-Paris Club creditors scheduled for the period 2011-2035.

Table 2. Republic of Congo: Macroeconomic Baseline Assumptions, 2007-12
(Percent, unless otherwise indicated)

	Historical average (1996- 2005)	2007	2008	2009	2010	2011	2012
Real GDP growth	3.3	3.7	7.2	6.0	8.8	-1.1	3.5
Inflation	4.1	7.0	5.0	3.0	3.0	3.0	3.0
Exports of G&S (US dollar terms)	16.7	-21.1	30.1	5.4	14.5	-14.9	-2.7
Imports of G&S (US dollar terms)	7.8	2.0	13.2	5.7	25.9	1.5	8.6
Current account balance (percent of GDP)	-4.0	7.6	9.9	11.0	7.6	1.2	-2.2
Grant element of new external borrowing	...	29.1	35.8	34.5	33.7	35.4	34.4

External and Public Debt Sustainability

9. **Congo is classified as a poor performer using the Country Policy and Institutional Assessment (CPIA).**⁴ This rating implies that the thresholds used to assess the risk of debt distress are lower than those used to assess eligibility for the HIPC Initiative: NPV of debt to exports of 100 percent and NPV of debt to revenue of 200 percent. Congo qualified for the HIPC Initiative on the basis of a threshold NPV of debt to revenue ratio of 250 percent.

10. **The debt sustainability outlook is strikingly different from one scenario to the other.** Under the non-adjustment scenario, even after debt relief is granted under the enhanced HIPC Initiative, Congo's debt in NPV terms would breach all sustainability thresholds by 2011. In contrast, a medium-term fiscal strategy envisaging a decrease in the non oil deficit would bring Congo's debt ratios to within sustainable bounds, as shown in the baseline scenario.

11. **Under the baseline scenario, the NPV of external debt-to-GDP is expected to decline smoothly, albeit at a lower pace than projected in the HIPC decision-point document, as a result of the newly contracted external debt.** At end-2006, the NPV of external debt is estimated to be 75 percent of GDP and 87 percent of exports. This implies a decline from the 2005 levels, when the NPV of debt was 99 percent of GDP and 122 percent of exports (Table 1). The NPV of debt-to-GDP ratio declines steadily under this scenario to about 12 percent by 2026. The path projected under the baseline scenario is very similar to that projected in the LIC DSA published in the HIPC decision-point document (Figure 1).

⁴ Independently of whether the three-year moving average or the 2005 classification is used.

12. **Under the baseline scenario, the external debt service indicator also suggests a moderate burden.** The projected debt-service levels are below the indicative threshold in the medium and long term. The debt service-to-exports and debt service-to-revenue ratios nonetheless rise faster than projected at HIPC decision point: this reflects the newly contracted external debt, with debt service payments falling due starting in 2011.

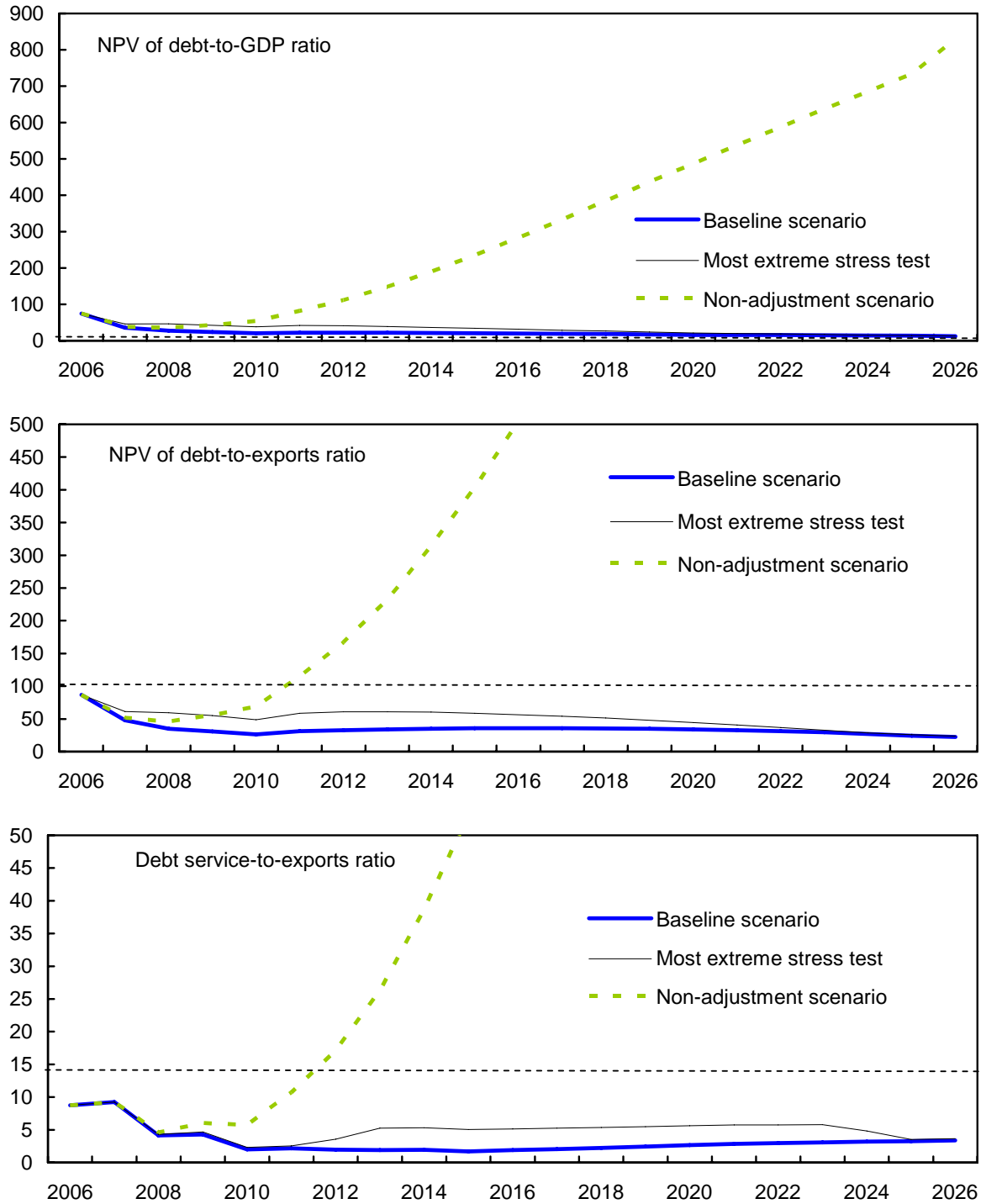
13. **Under the non-adjustment scenario, both Congo's external and public debt become unsustainable by 2011, even after the granting of debt relief at end-2009.** Debt indicators consistently show that Congo would reach debt levels above the indicative thresholds in NPV terms by 2011.

14. **Figure 2 illustrates the debt dynamics of Congo's total domestic and external public debt.** Under the non-adjustment scenario, Congo's debt ratios (NPV debt-to-GDP, NPV debt-to-revenue, and debt service-to-revenue) increase sharply as a result of cumulative financing gaps. In contrast, the baseline scenario show that public debt indicators remain within sustainable bounds. In this latter scenario, the NPV of public debt-to-revenue ratio is projected to decline from 172 percent in 2006 to 29 percent by 2026. The debt service-to-revenue ratio is projected to decline from 22 to less than 2 percent by 2015, but to increase thereafter due to payments on the newly contracted debt (Table 3 and Figure 2).

15. **Stress tests under the baseline scenario confirm Congo's vulnerability to plausible shocks,** in particular to a fall in FDI inflows, lower real GDP growth, and a depreciation of the CFA franc to the US dollar (Table 4). Under the most extreme stress test (a shock to non-debt creating flows), the NPV of debt-to-GDP ratio would remain above its 30 percent indicative threshold until 2016.

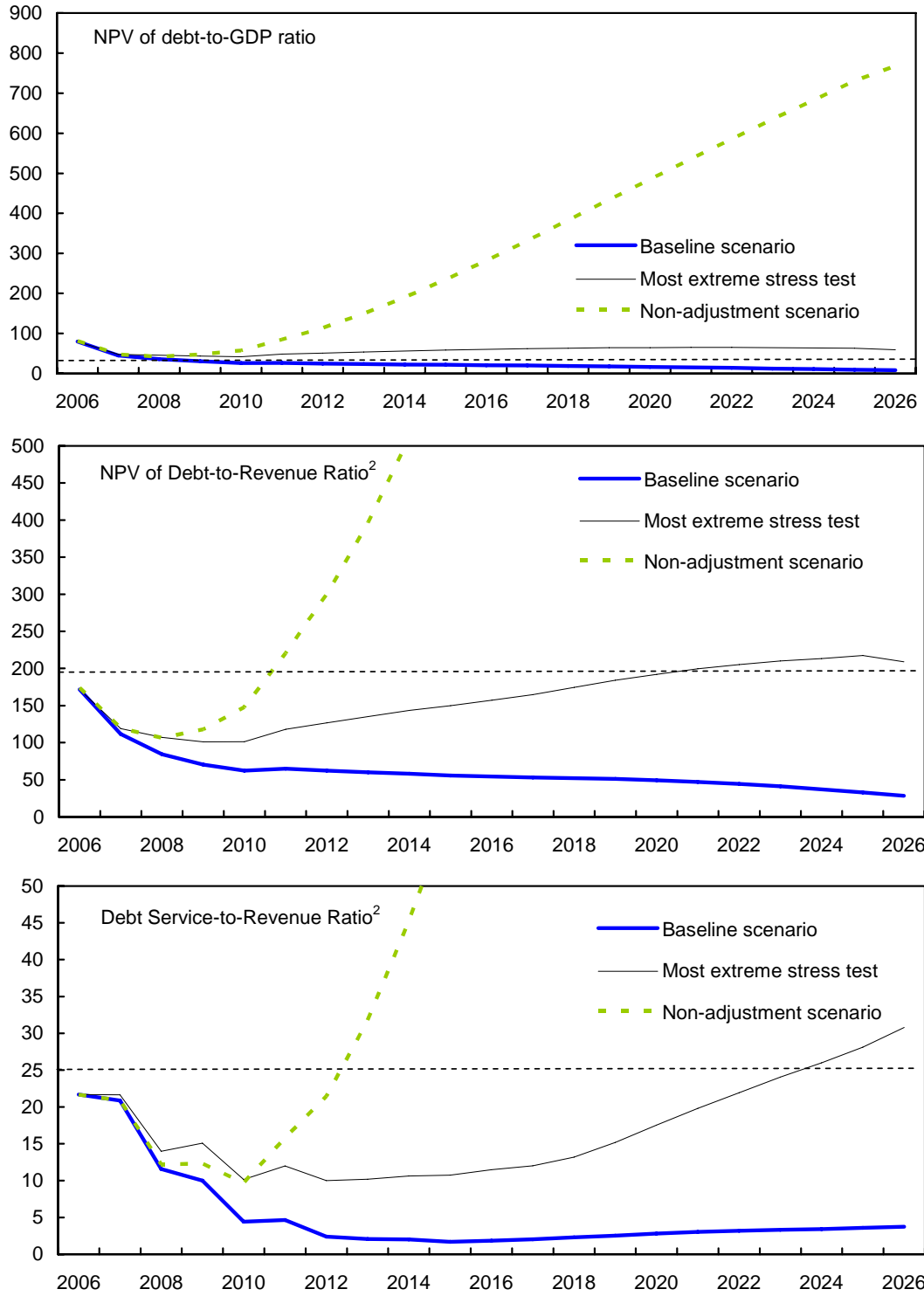
16. **In summary, the analysis shows that, with Congo's high debt level, keeping the non oil fiscal deficit unchanged over the long run endangers debt sustainability, even if HIPC completion point is reached.** In the absence of significant fiscal adjustment, Congo is likely to face debt distress well within the 20-year forecast horizon, given that sustainability indicators quickly breach the policy-dependent indicative thresholds in the forecast horizon in the non-adjustment scenario. An adjustment of policies, in particular a reduction of non oil deficits in the long run, would bring Congo's debt onto a sustainable path: this outcome would be contingent on the pursuit of prudent macroeconomic policies, thus highlighting the need to ensure that new borrowing in the period ahead is lower than it has been in recent years.

Figure 1. Congo: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2006-26 (Percent)



Source: Staff projections and simulations.

Figure 2. Congo: Indicators of Public Debt Under Alternative Scenarios, 2006-26¹
(Percent)



Source: Staff projections and simulations.

¹ Most extreme stress test is test that yields highest ratio in 2016.

² Revenue including grants.

Table 3. Congo: External Debt Sustainability Framework, Baseline Scenario, 2006-26¹
(Percent of GDP, unless otherwise indicated)

	Actual	Historical Average ⁶	Standard Deviation ⁶	Projections							2012-26 Average	
	2005			2006	2007	2008	2009	2010	2006-11 Average	2016		2026
External debt (nominal)¹	103.2			78.2	85.7	73.0	46.9	41.7		39.2	29.3	
o/w public and publicly guaranteed (PPG)	103.7			77.6	79.2	61.3	48.1	42.2		39.2	29.3	
Change in external debt	-108.9			-26.2	1.7	-18.0	-13.2	-5.9		-1.7	-0.9	
Identified net debt-creating flows	-81.2			-33.0	-22.0	-29.8	-28.0	-25.7		-16.5	-10.3	
Non-interest current account deficit	-12.8	-3.8	7.9	-16.4	-8.3	-12.6	-14.6	-12.0		-7.2	-2.1	-3.0
Deficit in balance of goods and services	-60.2			-65.7	-51.7	-57.4	-56.4	-55.0		-35.1	-26.8	
Exports	81.5			86.4	75.0	78.6	77.4	78.4		56.1	54.6	
Imports	21.3			20.7	23.3	21.2	21.0	23.4		21.0	27.8	
Net current transfers (negative = inflow)	0.0	-0.2	0.4	0.0	0.0	0.0	0.0	0.0		0.0	-0.2	-0.1
Other current account flows (negative = net inflow)	47.4			49.2	43.3	44.7	41.8	43.0		28.0	24.8	
Net FDI (negative = inflow)	-12.2	-9.4	6.2	-12.2	-11.2	-12.8	-10.5	-10.8		-8.1	-8.6	-8.2
Endogenous debt dynamics²	-56.2			-4.4	-2.4	-4.4	-2.9	-2.9		-1.2	0.5	
Contribution from nominal interest rate	1.9			1.1	0.8	0.3	0.6	1.0		0.7	0.5	
Contribution from real GDP growth	-12.2			-5.5	-3.2	-4.7	-3.5	-3.8		-2.0	0.0	
Contribution from price and exchange rate changes	-45.8			...	...	...	...	...		...	...
Residual (3-4)³	-27.7			6.9	23.6	11.8	14.8	19.8		14.9	9.4	
o/w exceptional financing	-1.7			-2.0	-1.1	0.1	-6.8	0.0		0.0	0.0	
NPV of external debt ⁴	99.2			74.9	35.9	27.4	23.8	20.7		20.1	12.2	
(percent of exports)	121.7			86.7	47.9	34.8	30.7	26.4		35.8	22.3	
NPV of PPG external debt	99.2			74.9	35.9	27.4	23.8	20.7		20.1	12.2	
(percent of exports)	121.7			86.7	47.9	34.8	30.7	26.4		35.8	22.3	
Debt service-to-exports ratio (percent)	12.9			8.7	9.3	4.2	4.3	2.0		1.9	3.4	
PPG debt service-to-exports ratio (percent)	12.9			8.7	9.3	4.2	4.3	2.0		1.9	3.4	
Total gross financing need (billions of U.S. dollars)	-0.9			-1.6	-0.8	-1.8	-1.9	-2.1		-1.7	-1.4	
Non-interest current account deficit that stabilizes debt rat	96.2			9.7	-10.0	5.3	-1.4	-6.1		-5.5	-1.2	
Key macroeconomic assumptions												
Real GDP growth (percent)	7.9	3.3	2.9	6.6	3.8	7.4	6.1	9.0	5.3	5.1	0.0	4.7
GDP deflator in US dollar terms (change in percent)	27.5	8.8	17.7	16.0	-12.4	15.5	0.8	3.8	3.1	0.9	0.0	-1.3
Effective interest rate (percent) ⁵	1.2	3.9	1.3	1.4	0.9	0.5	1.1	2.2	1.4	1.9	1.5	1.8
Growth of exports of G&S (US dollar terms, in percent)	43.5	16.7	24.5	31.0	-21.1	30.1	5.4	14.5	7.5	2.2	0.0	1.5
Growth of imports of G&S (US dollar terms, in percent)	18.0	7.8	14.5	20.2	2.0	13.2	5.7	25.9	11.4	8.8	0.0	4.3
Grant element of new public sector borrowing (percent)	...	...	...	31.2	29.1	35.8	34.5	33.7	33.3	33.0	37.7	31.0
<i>Memorandum item:</i>												
Nominal GDP (billions of US dollars)	6.0			7.4	6.7	8.3	8.9	10.1		11.9	15.4	

Source: Staff simulations.

¹ Includes both public and private sector external debt.

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

³ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

⁴ Assumes that NPV 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.

Table 4. Congo: Sensitivity Analyses for Key Indicators of Public and Publicly Guaranteed External Debt, 2006-26
(Percent)

	Projections							
	2006	2007	2008	2009	2010	2016	2020	2026
NPV of debt-to-GDP ratio								
Baseline Scenario	75	36	27	24	21	20	16	12
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2007-26 ¹	75	41	53	64	76	89	83	59
A2. New public sector loans on less favorable terms in 2007-26 ²	75	36	27	24	21	21	17	14
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2007-08	75	37	30	26	23	22	18	13
B2. Export value growth at historical average minus one standard deviation in 2007-08 ³	75	27	29	26	22	22	17	12
B3. US dollar GDP deflator at historical average minus one standard deviation in 2007-08	75	38	40	35	30	29	23	18
B4. Net non-debt creating flows at historical average minus one standard deviation in 2007-08	75	46	47	43	38	32	21	13
B5. Combination of B1-B4 using one-half standard deviation shocks	75	19	13	8	6	13	15	15
B6. One-time 30 percent nominal depreciation relative to the baseline in 2007 ⁵	75	55	42	36	31	31	24	19
NPV of debt-to-exports ratio								
Baseline Scenario	87	48	35	31	26	36	34	22
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2007-26 ¹	87	55	67	83	96	159	175	109
A2. New public sector loans on less favorable terms in 2007-26 ²	87	48	35	31	27	38	37	26
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2007-08	87	48	35	31	26	36	34	22
B2. Export value growth at historical average minus one standard deviation in 2007-08 ³	87	31	45	40	35	47	44	27
B3. US dollar GDP deflator at historical average minus one standard deviation in 2007-08	87	48	35	31	26	36	34	22
B4. Net non-debt creating flows at historical average minus one standard deviation in 2007-08	87	61	59	55	49	56	45	23
B5. Combination of B1-B4 using one-half standard deviation shocks	87	19	12	8	6	17	24	20
B6. One-time 30 percent nominal depreciation relative to the baseline in 2007 ⁵	87	48	35	31	26	36	34	22
Debt service ratio								
Baseline Scenario	9	9	4	4	2	2	3	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2007-26 ¹	9	8	5	5	3	13	18	15
A2. New public sector loans on less favorable terms in 2007-26 ²	9	9	4	4	2	2	3	4
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2007-08	9	9	4	4	2	2	3	3
B2. Export value growth at historical average minus one standard deviation in 2007-08 ³	9	8	5	5	2	3	4	4
B3. US dollar GDP deflator at historical average minus one standard deviation in 2007-08	9	9	4	4	2	2	3	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2007-08	9	9	4	5	2	5	6	4
B5. Combination of B1-B4 using one-half standard deviation shocks	9	7	4	4	2	-1	0	3
B6. One-time 30 percent nominal depreciation relative to the baseline in 2007 ⁵	9	9	4	4	2	2	3	3
<i>Memorandum item:</i>								
Grant element assumed on residual financing (i.e., financing required above baseline) ⁶	31	31	31	31	31	31	31	31

Source: Staff projections and simulations.

¹ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.² Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline., while grace and maturity periods are the same as in the baseline.³ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).⁴ Includes official and private transfers and FDI.⁵ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.⁶ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

Table 5. Congo: Public Sector Debt Sustainability Framework, Baseline Scenario, 2003-2026
(Percent of GDP, unless otherwise indicated)

	Actual	Estimate			Projections							
	2005	Historical Average ⁵	Standard Deviation ⁵	2006	2007	2008	2009	2010	2006-11 Average	2016	2026	2012-26 Average
Public sector debt¹	121.1			82.7	88.0	72.3	56.6	48.8		41.2	19.9	
o/w foreign-currency denominated	109.0			73.7	79.1	65.7	51.5	45.1		41.2	19.9	
Change in public sector debt	-92.8			-38.5	5.4	-15.7	-15.6	-7.8		-1.8	-2.2	
Identified debt-creating flows	-58.2			-53.0	0.1	-27.7	-51.1	-27.5		-12.9	-1.5	
Primary deficit	-20.9	-5.7	7.0	-23.8	-12.8	-17.8	-18.9	-18.4	-17.8	-10.3	-0.2	-6.7
Revenue and grants	39.6			46.6	40.2	42.6	43.4	41.5		38.5	28.1	
of which: grants	0.2			0.1	0.7	0.7	0.7	0.6		0.7	0.6	
Primary (noninterest) expenditure	18.6			22.8	27.4	24.8	24.6	23.1		28.2	27.9	
Automatic debt dynamics	-34.0			-27.5	15.1	-10.1	-3.4	-5.4		-1.8	-0.9	
Contribution from interest rate/growth differential	-17.7			-6.7	-0.6	-6.2	-3.9	-4.5		-2.1	-1.2	
of which: contribution from average real interest rate	-2.4			0.6	2.4	-0.2	0.1	0.1		0.0	0.0	
of which: contribution from real GDP growth	-15.4			-7.3	-3.0	-5.9	-4.1	-4.6		-2.1	-1.2	
Contribution from real exchange rate depreciation	-16.3			-20.8	15.7	-3.9	0.5	-0.9		...	...
Other identified debt-creating flows	-3.3			-1.6	-2.2	0.2	-28.8	-3.7		-0.8	-0.4	
Privatization receipts (negative)	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	
Debt relief (HIPC and other)	-3.3			-1.6	-2.2	0.2	-28.8	-3.7		-0.8	-0.4	
Other (specify, e.g. bank recapitalization)	0.0			0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	-34.5			14.5	5.2	12.0	35.4	19.7		11.1	11.1	
NPV of public sector debt	56.7			80.1	44.8	36.0	30.6	25.8		20.9	8.0	
o/w foreign-currency denominated	44.6			71.2	35.9	29.3	25.4	22.1		20.9	8.0	
o/w external	44.6			71.2	35.9	29.3	25.4	22.1		20.9	8.0	
NPV of contingent liabilities (not included in public sector debt)	0.0			0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Gross financing need ²	-6.8			-13.7	-4.4	-12.9	-14.5	-16.5		-9.1	-0.3	
NPV of public sector debt-to-revenue ratio (percent) ³	143.4			171.8	111.5	84.5	70.5	62.2		54.4	28.6	
o/w external	112.7			152.6	89.3	68.9	58.5	53.3		54.4	28.6	
Debt service-to-revenue ratio (percent) ^{3,4}	35.7			21.7	20.9	11.6	10.0	4.4		1.8	3.7	
Primary deficit that stabilizes the debt-to-GDP ratio	71.9			14.6	-18.2	-2.0	-3.2	-10.6		-8.5	2.0	
Key macroeconomic and fiscal assumptions												
Nominal GDP (local currency)	3150			3862	3349	3854	4110	4619		5497	11241	
Real GDP growth (percent)	7.7	3.3	3.3	6.4	3.7	7.2	6.0	8.8	5.2	5.1	5.6	5.1
Average nominal interest rate on forex debt (percent)	1.4	4.0	1.5	1.2	0.9	0.5	1.0	2.2	1.4	1.9	1.5	1.8
Average real interest rate on domestic currency debt (percent)	-1.7	-2.4	17.1	12.5	19.8	11.4	10.2	0.6	10.1	...	...	-41.1
Real exchange rate depreciation (in percent, + indicates depreciation)	-9.0	-3.4	15.6	-20.5	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, percent)	27.4	9.7	20.6	15.2	-4.8	6.2	1.8	2.4	3.6	2.5	2.7	2.5
Growth of real primary spending (deflated by GDP deflator, percent)	-12.8	5.5	23.2	30.1	9.3	-1.8	3.8	3.1	8.1	4.3	4.8	4.5
Grant element of new external borrowing (percent)	52.8	5.3	16.7	31.2	29.1	35.8	34.5	33.7	33.3	33.0	71.3	1.9

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

¹ Public sector comprises central government, 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 including 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 6. Congo: Sensitivity Analysis for Key Indicators of Public Debt 2006-26

	Projections							
	2006	2007	2008	2009	2010	2015	2020	2026
NPV of Debt-to-GDP Ratio								
Baseline Scenario	80	45	36	31	26	22	17	8
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	80	52	56	64	73	109	117	319
A2. Non-oil primary balance is unchanged from 2006	81	48	42	48	57	234	124	768
A3. Permanently lower GDP growth ¹	80	45	37	33	29	35	41	45
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2007-2008	80	48	46	44	42	59	65	59
B2. Primary balance is at historical average minus one standard deviations in 2007-2008	80	58	65	59	52	50	40	28
B3. Combination of B1-B2 using one half standard deviation shocks	80	56	64	59	53	55	46	34
B4. One-time 30 percent real depreciation in 2007	80	63	53	50	43	39	28	17
B5. 10 percent of GDP increase in other debt-creating flows in 2007	80	54	44	39	33	30	22	13
NPV of Debt-to-Revenue Ratio ²								
Baseline Scenario	172	111	85	70	62	56	49	29
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	172	128	131	147	176	279	347	1126
A2. Non-oil primary balance is unchanged from 2006	174	119	106	118	148	631	353	2699
A3. Permanently lower GDP growth ¹	172	113	88	76	70	90	123	161
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2007-2008	172	119	107	101	101	150	192	209
B2. Primary balance is at historical average minus one standard deviations in 2007-2008	172	144	154	136	125	129	120	99
B3. Combination of B1-B2 using one half standard deviation shocks	172	139	150	135	127	140	138	120
B4. One-time 30 percent real depreciation in 2007	172	158	124	115	104	99	84	59
B5. 10 percent of GDP increase in other debt-creating flows in 2007	172	135	104	89	80	77	66	45
Debt Service-to-Revenue Ratio ²								
Baseline Scenario	22	21	12	10	4	2	3	4
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	22	21	18	23	22	21	33	46
A2. Non-oil primary balance is unchanged from 2006	22	21	12	12	10	60	8	397
A3. Permanently lower GDP growth ¹	22	21	12	11	5	5	10	24
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2007-2008	22	22	14	15	10	11	18	31
B2. Primary balance is at historical average minus one standard deviations in 2007-2008	22	21	22	28	12	6	14	17
B3. Combination of B1-B2 using one half standard deviation shocks	22	21	21	27	13	7	15	19
B4. One-time 30 percent real depreciation in 2007	22	21	12	11	6	3	4	7
B5. 10 percent of GDP increase in other debt-creating flows in 2007	22	21	19	13	6	3	5	8

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

¹ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of 20 (i.e., the length of the projection period).

² Revenues are defined inclusive of grants.

