CENTRAL AFRICAN REPUBLIC

June 18, 2018

FOURTH REVIEW UNDER THE EXTENDED CREDIT FACILITY ARRANGEMENT, REQUESTS FOR WAIVERS OF NONOBSERVANCE OF PERFORMANCE CRITERIA AND MODIFICATION OF PERFORMANCE CRITERIA AND FINANCING ASSURANCES REVIEW—DEBT SUSTAINABILITY ANALYSIS[1]

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Risk of external debt distress:	**High**
Augmented by risks stemming from public-domestic debt	**Yes**

Central African Republic (C.A.R.) continues to be assessed at high risk of external debt distress. This rating is unchanged from the previous analysis and consistent with the Staff Report of December 2017 (EBS/17/123). Under the baseline scenario, one debt burden indicator breaches its threshold. And stress tests show that both external and total public debt sustainability is vulnerable to slower GDP, export, and revenue growth. For total public and publicly guaranteed (PPG) debt (external plus domestic), the debt-to-GDP indicator remains below its prudent benchmark. However, the existence of large arrears to suppliers and unpaid public-sector wages in the domestic debt stock justifies the assessment of a heightened overall risk of debt distress. Contingent liabilities could further exacerbate vulnerability concerns. To safeguard debt sustainability, the government's investment program requires grant financing, with highly concessional debt financing to be considered only in exceptional cases.

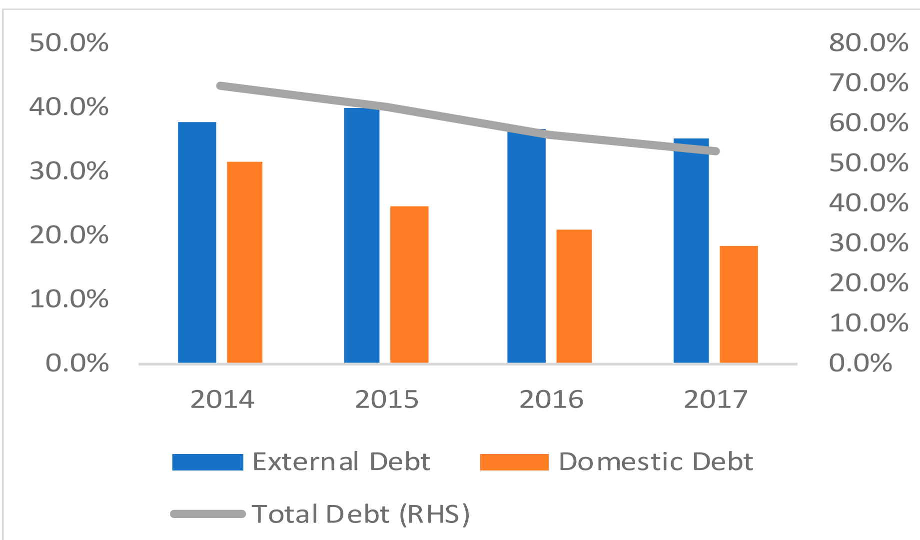
[1] C.A.R.'s average rating in the World Bank's Country Policy and Institutional Assessment (CPIA) during 2014-2016 is 2.44. This corresponds to a weak policy performance under the Debt Sustainability Framework for Low-Income Countries.

BACKGROUND

1. **C.A.R.'s debt is on a declining path.** Debt indicators deteriorated significantly following the 2013 crisis when GDP collapsed and domestic and external arrears were accumulated. Since then, conditions have improved, supported by economic recovery, stronger revenue mobilization, arrears clearance and limited new borrowing (Text Figure 1). At end-2017, total external public debt stood at 35.5 percent of GDP in 2017, down from 36.4 and 39.8 percent of GDP in 2016 and 2015, respectively. Total public and publicly-guaranteed (PPG) debt (external plus domestic) decreased from 64.2 percent of GDP in 2015 to 51.5 percent in 2017, reflecting a reduction of domestic debt by 6.2 percentage points of GDP and of external debt by 4.8 percentage points of GDP.

2. **The authorities' overall macroeconomic objectives aimed at reducing the debt ratio over the medium term.** The government's strategy centers on resolving pre-HIPC and post-HIPC arrears, clear domestic arrears, strengthening debt management, and relying on grant financing to support their investment program. C.A.R. reached the HIPC completion point in June 2009.

Text Figure 1. C.A.R: Total Central Government Debt 2014–20
(in percent of GDP)



Sources: Authorities' data and staff calculations.

RECENT DEVELOPMENTS AND STRUCTURE OF DEBT[2]

3. **C.A.R.'s external public debt is, essentially, owed to multilateral and bilateral creditors.** The composition of the external debt stock has remained unchanged over time. In 2017, most external debt was owed to multilateral creditors (13.2 percent of GDP), while debt to bilateral creditors stood at 7.8 percent of GDP and debt to private creditors at 3.1 percent of GDP. The remainder are pre-HIPC arrears (11.4 percent of GDP) owed to Non-Paris Club members (Argentina, Equatorial Guinea, Iraq, Libya, and China).

4. **Some external creditors provided debt relief**. China canceled five loans amounting to Yuan 198.4 million (2 percent of GDP) and provided flow relief on outstanding debt. Discussions with India to regularize arrears have made good progress. An agreement is being finalized based on the full clearance of arrears in 2018 and a restructuring of the remaining debt is envisaged with repayments set to start in 2024. The authorities have concluded debt restructurings with two private creditors. The small remaining amount (0.2 percent of GDP) will be repaid within 5 years.

5. **C.A.R. has contracted one small new loan in 2017**. The African Development Bank provided a highly concessional budget support loan of US$15 million with a grant element of 60.6 percent.

6. **Domestic debt consists mainly of payment arrears and loans by the regional central bank (BEAC)**. At end-2017, domestic debt amounted to CFAF 195.9 billion (17.4 percent of GDP). In line with regional commitments, the government signed an agreement with BEAC to consolidate all loans and advances amounting to CFAF 80.5 billion, with a 4-year grace period, and to be repaid over 14 years. The debt to commercial banks (CFAF 27.2 billion or 2.4 percent of GDP as of December 31, 2017) will be repaid over 8 years. Arrears to private suppliers as of December 31, 2017 (CFAF 9.4 billion as of December 31, 2017) have largely been cleared. Social arrears amount to CFAF 64.9 billion (5.8 percent of GDP). They consist of wage, benefits and pension payments. According to the government clearance strategy, they should be cleared over the next three years. An international audit confirmed that the repayment of arrears at end-March 2018 is broadly in line with the timebound plan and that all safeguards are applied comprehensively. Cross-debts and other debts are estimated at CFAF 4.4 billion. Outstanding T-bills of CFAF 9.5 billion account for the remainder of the domestic debt.

Text Table 1. Central African Republic: Domestic Stock 2017

Type of Creditor	Current (in CFA billion)	Arrears (in CFA billion)	Total (in CFA billion)	(in percent of GDP)
Domestic				
Total	119.5	76.4	195.9	17.4
BEAC	80.5	0.0	80.5	7.2
Commercial Banks	27.2	0.0	27.2	2.4
Private Suppliers	0.0	9.4	9.4	0.8
Social Arrears	0.0	64.9	64.9	5.8
T-Bills	9.5	0.0	9.5	0.8
Cross Debt and Other	2.3	2.1	4.4	0.4

Sources: C.A.R. authorities and IMF Staff calculations.

[2] The debt (both external and domestic) covers gross central government's debt. Debt to the IMF is included in external debt.

Text Table 2. Central African Republic: External Debt Stock 2017

Type of Creditor	Total (in CFAF billion)	(in percent of GDP)	of which in arrears
Total[1]	399.2	35.5	
Multilateral	148.4	13.2	
World Bank	36.8	3.3	
IMF	86.4	7.7	
Other	25.1	2.2	
Bilateral	88.1	7.8	
Paris Club	0.0	0.0	
Non-Paris Club	88.1	7.8	
Saudi Arabia	9.9	0.9	
India	23.0	2.0	3.3
China	24.9	2.2	
Congo	18.2	1.6	
Kuwait	12.1	1.1	
Private	34.8	3.1	25.5
Pre-HIPC Arrears	128.0	11.4	128.0
Argentina	19.4	1.7	19.4
Eq. Guinea	3.6	0.3	3.6
Iraq	2.7	0.2	2.7
Libya	7.4	0.7	7.4
Taiwan Province of China	89.1	7.9	89.1
Ofid	5.8	0.5	5.8

Sources: C.A.R. authorities and IMF Staff calculations.

[1] Includes pre-HIPC arrears

UNDERLYING ASSUMPTIONS

7. **Macroeconomic assumptions have been updated moderately compared with the November 2017 DSA.** The main changes relate to the primary balance, the non-interest current account balance and GDP growth for the medium term (Text Table 3).

- Real GDP growth has been revised upward due to a pick-up in public investment. Growth is expected to reach 4.3 in 2018 and to average 5 percent over 2019–23. Longer-term output gains are expected to average 3.4 percent per year, a conservative assumption given low levels of per-capita GDP.

- On the fiscal front, the medium-term primary surplus has been lowered from 1.1 percent of GDP (in the 2017 DSA) to 0.6 percent of GDP, reflecting a downward revision of projected domestic revenues. In the longer term, a primary deficit of about 2 percent of GDP is projected reflecting a gradual decline in external grants.

- The non-interest current account deficit is expected to decline gradually in the medium to long term. The average medium-term non-interest current account deficit is projected to improve from 6.8 percent of GDP in the 2017 DSA to 6.0 percent of GDP in the 2018 DSA, driven by more favorable export developments for wood and diamond exports.

- Grant-equivalent financing is assumed to decline from an average of 7 percent of GDP in 2018-23 to about 2.7 percent of GDP in the long run (2024–38).

Text Table 3. Central African Republic: Macroeconomic Projections

	Dec-17			DSA-18		
	2017	Aver. 2018-21	Aver. 2023-37	2018	Aver. 2019-23	Aver. 2024-38
	(Percent of GDP; unless otherwise indicated)			*(Percent of GDP; unless otherwise indicated)*		
GDP growth (percent)	4.0	4.0	3.4	4.3	5.0	3.4
GDP deflator (percent)	3.5	3.2	3.4	3.9	3.1	3.3
Non-interest current account balance	-8.3	-6.8	-3.0	-8.2	-6.0	-2.8
Primary balance	0.9	1.1	-1.4	1.2	0.6	-1.9
Exports	12.8	12.7	13.2	14.7	13.9	14.0
Revenues	15.0	16.2	13.9	16.6	16.6	13.3

EXTERNAL DEBT SUSTAINABILITY RESULTS

8. **The present value (PV) of the external PPG debt-to-exports ratio is expected to narrowly breach the policy threshold over 2018-19 years**.[3] The breach has noticeably shortened compared to the 2017 DSA due mainly to debt relief and or rescheduling provided by some external creditors. All other external PPG debt indicators remain below their respective thresholds under the baseline scenario. The low level of debt service related indicators is essentially explained by the concessionality of the outstanding debt (Figure 1).

9. **Alternative scenarios and stress tests underline vulnerabilities.** Except for the PV of the debt-to-GDP ratio, which does not show any breach under stress tests, almost all the other external PPG debt indicators record large and protracted breaches under the most extreme shock scenarios. The PV of debt-to-exports ratio remains above the policy threshold throughout the projection period, under a combination stress-test.[4] Furthermore, the PV of debt-to-revenue ratio stays above its threshold from 2019 until 2025 under the same assumptions. These sensitivity analyses underline the vulnerabilities to lower growth and exports—which stand as the most extreme shock scenario. It should be noted that the historical scenario provides a distorted picture of future developments due to the impact of the 2013 crisis.

[3] The high residual in the external debt sustainability framework (Table 1 on p.10) can be explained by project grants (recorded in the capital account) and unrecorded non-debt creating inflows.

[4] The combination stress test reflects the combined effect of a scale-back in real GDP and export growth, with diminishing inflation and reduced non-debt creating flows (0.5 standard deviation below historic averages).

PUBLIC DEBT SUSTAINABILITY RESULTS

10. **The total PPG debt (external plus domestic) indicator lies below its respective benchmark under the baseline scenario**. The total PPG debt indicator does not show any breach under the baseline scenario. Such results would suggest an attenuated risk of total PPG debt distress. However, the large share of arrears in the domestic debt stock (40 percent) justifies the assessment of heightened overall risk of debt distress. Under the most extreme shock scenario, a falloff in GDP growth, the PV of debt-to-GDP ratio remains above the benchmark from 2024 until the end of the projection period. The sensitivity analysis shows that total debt is vulnerable to lower GDP and revenue growth. In addition, contingent liabilities could further exacerbate sustainability concerns. The main sources of contingent liabilities in C.A.R. pertain to debt held by the three main state-owned enterprises (ENERCA, SODECA, SOCATEL) which operate respectively in the energy, water and telecommunications sectors. Their debt is essentially domestic and held by commercial banks. The government did not guarantee this debt.

CONCLUSION

11. **The updated DSA confirms that C.A.R. stands at high risk of external debt distress, with overall risk heightened by large domestic arrears, and potential for contingent liabilities to worsen debt dynamics**. This rating reflects mainly the past collapse of GDP, tax revenues, and exports as well as the existence of legacy external arrears. The outlook is subject to significant downside risks. An escalation of violence would depress growth and lower revenues and alternative scenarios show that C.A.R.'s debt trajectory is vulnerable to GDP, export and revenue shocks. Contingent liabilities could exacerbate debt vulnerabilities and sustainability concerns. The PV of external debt-to-exports ratio remains for a short time above the policy threshold under the baseline scenario.

12. **The authorities concur with staff's assessment.** Consistent with the conclusions, the authorities remain committed to securing grants to finance investments and contracting highly concessional loans only in exceptional cases.

Table 1. Central African Republic: External Debt Sustainability Framework, Baseline Scenario, 2015–38 1/

(Percent of GDP, unless otherwise indicated)

	Actual			Historical 6/ Average	Standard 6/ Deviation	Projections									
	2015	2016	2017			2018	2019	2020	2021	2022	2023	2018-2023 Average	2028	2038	2024-2038 Average
External debt (nominal) 1/	**39.8**	**36.4**	**35.5**			**32.5**	**30.3**	**27.5**	**25.0**	**22.7**	**20.4**		**19.2**	**22.0**	
of which: public and publicly guaranteed (PPG)	39.8	36.4	35.5			32.5	30.3	27.5	25.0	22.7	20.4		19.2	22.0	
Change in external debt	2.1	-3.4	-0.9			-3.0	-2.2	-2.8	-2.5	-2.3	-2.3		1.0	0.9	
Identified net debt-creating flows	11.6	4.3	4.4			6.3	4.9	4.2	3.4	3.0	3.0		1.1	1.1	
Non-interest current account deficit	**8.7**	**8.2**	**8.4**	**7.3**	**2.3**	**8.2**	**7.4**	**6.8**	**5.7**	**5.2**	**5.0**		**2.8**	**2.8**	2.8
Deficit in balance of goods and services	22.0	19.1	17.5			18.3	16.4	15.2	13.9	13.1	12.6		9.5	8.0	
Exports	12.6	14.3	15.3			14.7	14.4	14.1	13.9	13.8	13.4		14.0	14.0	
Imports	34.6	33.5	32.8			33.0	30.8	29.3	27.9	26.9	26.1		23.5	22.0	
Net current transfers (negative = inflow)	-12.5	-10.9	-8.9	-7.9	5.0	-9.9	-8.9	-8.2	-8.1	-7.8	-7.5		-7.2	-5.2	-6.6
of which: official	-5.8	-5.2	-3.4			-4.8	-4.1	-3.5	-3.5	-3.4	-3.2		-3.8	-2.6	
Other current account flows (negative = net inflow)	-0.8	0.0	-0.2			-0.2	-0.1	-0.1	-0.1	-0.1	-0.1		0.6	0.0	
Net FDI (negative = inflow)	**-0.3**	**-0.4**	**-0.9**	**-1.8**	**1.8**	**-0.8**	**-1.1**	**-1.4**	**-1.3**	**-1.2**	**-1.1**		**-1.3**	**-1.2**	-1.4
Endogenous debt dynamics 2/	**3.3**	**-3.5**	**-3.2**			**-1.1**	**-1.3**	**-1.2**	**-1.1**	**-1.0**	**-0.9**		**-0.4**	**-0.5**	
Contribution from nominal interest rate	0.4	0.3	0.2			0.2	0.2	0.2	0.2	0.2	0.1		0.2	0.2	
Contribution from real GDP growth	-1.9	-1.6	-1.4			-1.3	-1.5	-1.4	-1.3	-1.2	-1.1		-0.6	-0.7	
Contribution from price and exchange rate changes	4.8	-2.2	-1.9			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**-9.6**	**-7.6**	**-5.3**			**-9.3**	**-7.1**	**-7.0**	**-5.9**	**-5.3**	**-5.3**		**-0.1**	**-0.2**	
of which: exceptional financing	0.0	-0.2	0.2			0.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	15.6			15.5	14.7	13.5	12.3	11.2	10.0		8.3	11.5	
In percent of exports	...	...	102.3			105.4	102.4	95.4	88.3	81.5	74.6		59.2	82.1	
PV of PPG external debt	**...**	**...**	**15.6**			**15.5**	**14.7**	**13.5**	**12.3**	**11.2**	**10.0**		**8.3**	**11.5**	
In percent of exports	**...**	**...**	**102.3**			**105.4**	**102.4**	**95.4**	**88.3**	**81.5**	**74.6**		**59.2**	**82.1**	
In percent of government revenues	**...**	**...**	**188.2**			**168.1**	**155.1**	**137.6**	**122.2**	**108.7**	**94.4**		**69.0**	**95.8**	
Debt service-to-exports ratio (in percent)	**8.3**	**7.9**	**2.4**			**9.2**	**8.2**	**6.6**	**6.5**	**6.2**	**8.0**		**5.5**	**3.1**	
PPG debt service-to-exports ratio (in percent)	**8.3**	**7.9**	**2.4**			**9.2**	**8.2**	**6.6**	**6.5**	**6.2**	**8.0**		**5.5**	**3.1**	
PPG debt service-to-revenue ratio (in percent)	**14.7**	**13.8**	**4.4**			**14.7**	**12.4**	**9.5**	**9.0**	**8.3**	**10.2**		**6.4**	**3.7**	
Total gross financing need (Billions of U.S. dollars)	0.1	0.2	0.2			0.2	0.2	0.2	0.2	0.2	0.2		0.1	0.2	
Non-interest current account deficit that stabilizes debt ratio	6.6	11.6	9.3			11.2	9.6	9.6	8.2	7.4	7.4		1.8	1.9	
Key macroeconomic assumptions															
Real GDP growth (in percent)	4.8	4.5	4.3	-0.8	12.7	4.3	5.0	5.0	5.0	5.0	5.0	4.9	3.5	3.4	3.4
GDP deflator in US dollar terms (change in percent)	-11.4	6.0	5.6	3.4	8.3	14.1	4.6	4.4	3.7	3.6	3.3	5.6	3.3	3.3	2.8
Effective interest rate (percent) 5/	0.9	0.9	0.6	1.8	0.8	0.5	0.5	0.6	0.6	0.7	0.7	0.6	0.9	0.9	0.9
Growth of exports of G&S (US dollar terms, in percent)	-10.0	25.6	17.7	3.2	15.9	14.2	7.6	7.6	7.6	7.7	5.5	8.4	6.9	6.9	6.6
Growth of imports of G&S (US dollar terms, in percent)	-14.5	7.2	8.0	7.1	25.3	19.8	2.4	4.3	3.7	5.1	5.1	6.7	6.9	6.9	5.2
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	37.0	37.4	51.4	51.4	51.4	51.4	46.7	51.4	51.4	51.4
Government revenues (excluding grants, in percent of GDP)	7.1	8.2	8.3			9.2	9.5	9.8	10.1	10.3	10.6		12.0	12.0	11.6
Aid flows (in Billions of US dollars) 7/	0.1	0.1	0.1			0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.3	
of which: Grants	0.1	0.1	0.1			0.2	0.2	0.2	0.2	0.2	0.2		0.1	0.1	
of which: Concessional loans	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.1	0.2	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			8.9	8.2	7.2	6.5	6.3	6.2		3.4	2.3	2.7
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			78.5	88.1	96.6	96.5	96.7	96.8		71.7	65.3	74.9
Memorandum items:															
Nominal GDP (Billions of US dollars)	1.6	1.8	1.9			2.3	2.5	2.8	3.0	3.3	3.6		4.6	9.0	
Nominal dollar GDP growth	-7.1	10.8	10.2			19.1	9.9	9.6	8.9	8.8	8.5	10.8	6.9	6.9	6.4
PV of PPG external debt (in Billions of US dollars)			0.3			0.4	0.4	0.4	0.4	0.4	0.4		0.4	1.0	
(PVt-PVt-1)/GDPt-1 (in percent)						2.1	0.7	0.0	-0.1	-0.1	-0.4	0.4	1.0	1.4	0.7
Gross workers' remittances (Billions of US dollars)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of PPG external debt (in percent of GDP + remittances)	...	...	15.8			15.6	14.8	13.6	12.4	11.3	10.1		8.3	11.5	
PV of PPG external debt (in percent of exports + remittances)	...	...	108.6			111.8	108.5	100.8	93.1	85.8	78.4		60.0	82.9	
Debt service of PPG external debt (in percent of exports + remittance	...	...	2.5			9.8	8.6	7.0	6.8	6.6	8.5		5.6	3.2	

Sources: Country authorities; and 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 2. Central African Republic: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2018–38

(Percent)

	Projections							
	2018	2019	2020	2021	2022	2023	**2028**	2038
PV of debt-to GDP ratio								
Baseline	15	15	13	12	11	10	**8**	11
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2018-2038 1/	15	15	15	15	15	16	**24**	52
A2. New public sector loans on less favorable terms in 2018-2038 2	15	15	14	13	12	11	**12**	18
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	15	18	20	18	17	15	**12**	17
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	15	16	17	16	15	13	**11**	13
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	15	16	16	15	14	12	**10**	14
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	15	18	20	19	18	16	**14**	14
B5. Combination of B1-B4 using one-half standard deviation shocks	15	21	29	27	25	23	**20**	19
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	15	21	19	17	16	14	**12**	16
PV of debt-to-exports ratio								
Baseline	105	102	95	88	82	75	**59**	82
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2018-2038 1/	105	107	106	108	112	116	**173**	371
A2. New public sector loans on less favorable terms in 2018-2038 2	105	105	99	92	86	80	**82**	128
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	105	103	96	89	82	75	**59**	82
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	105	139	185	173	162	151	**123**	137
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	105	103	96	89	82	75	**59**	82
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	105	128	144	136	127	120	**99**	97
B5. Combination of B1-B4 using one-half standard deviation shocks	105	142	187	176	165	156	**129**	124
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	105	103	96	89	82	75	**59**	82
PV of debt-to-revenue ratio								
Baseline	168	155	138	122	109	94	**69**	96
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2018-2038 1/	168	162	154	150	149	146	**202**	432
A2. New public sector loans on less favorable terms in 2018-2038 2	168	159	142	128	115	101	**96**	149
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	168	189	203	180	160	139	**102**	141
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	168	170	176	158	142	125	**95**	105
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	168	172	167	148	131	114	**83**	116
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	168	194	208	188	169	151	**115**	113
B5. Combination of B1-B4 using one-half standard deviation shocks	168	226	300	271	245	219	**168**	161
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	168	219	194	172	153	133	**97**	134

Table 2. Central African Republic: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2018–38 (concluded)

(Percent)

Debt service-to-exports ratio								
Baseline	9	8	7	6	6	8	**6**	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2018-2038 1/	9	9	8	8	8	11	**9**	16
A2. New public sector loans on less favorable terms in 2018-2038 2	9	8	7	7	6	8	**4**	6
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	9	8	7	6	6	8	**6**	3
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	9	10	10	10	10	13	**10**	6
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	9	8	7	6	6	8	**6**	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	9	8	7	7	7	9	**7**	5
B5. Combination of B1-B4 using one-half standard deviation shocks	9	9	9	9	9	11	**9**	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	9	8	7	6	6	8	**6**	3
Debt service-to-revenue ratio								
Baseline	15	12	10	9	8	10	**6**	4
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2018-2038 1/	15	13	11	11	11	14	**11**	18
A2. New public sector loans on less favorable terms in 2018-2038 2	15	12	10	9	9	11	**5**	7
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	15	15	14	13	12	15	**9**	5
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	15	12	10	10	9	11	**7**	5
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	15	14	11	11	10	12	**8**	4
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	15	12	10	10	9	11	**9**	6
B5. Combination of B1-B4 using one-half standard deviation shocks	15	15	14	14	13	16	**12**	8
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	15	17	13	13	12	14	**9**	5
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	50	50	50	50	50	50	**50**	50

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
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 tl 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 3. Central African Republic: Public Sector Debt Sustainability Framework, Baseline Scenario, 2015–38 1/

(Percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2015	2016	2017	Average 5/	Standard Deviation 5/	2018	2019	2020	2021	2022	2023	2018-23 Average	2028	2038	2024-38 Average
Public sector debt 1/	64.2	56.0	52.9			47.0	41.9	38.6	35.7	33.0	30.6		30.1	28.7	
of which: foreign-currency denominated	39.8	36.4	35.5			32.5	30.3	27.5	25.0	22.7	20.4		19.2	22.0	
Change in public sector debt	-5.0	-8.1	-3.1			-6.0	-5.1	-3.2	-2.9	-2.7	-2.4		1.1	0.4	
Identified debt-creating flows	-2.8	-6.9	-7.7			-6.7	-4.7	-3.6	-3.3	-3.1	-2.9		-0.5	0.6	
Primary deficit	0.1	-2.1	0.8	0.1	2.5	-1.2	-1.0	-0.5	-0.5	-0.6	-0.7	-0.7	1.2	2.2	1.9
Revenue and grants	14.3	14.1	13.7			16.6	17.0	16.7	16.3	16.5	16.6		14.0	13.0	
of which: grants	7.2	6.0	5.4			7.4	7.6	6.9	6.3	6.1	6.0		2.0	1.0	
Primary (noninterest) expenditure	14.4	12.0	14.5			15.4	16.1	16.2	15.8	15.9	15.9		15.2	15.2	
Automatic debt dynamics	-1.9	-4.7	-7.5			-5.4	-3.7	-3.1	-2.8	-2.5	-2.3		-1.7	-1.6	
Contribution from interest rate/growth differential	-6.5	-5.9	-3.8			-3.8	-3.4	-2.9	-2.6	-2.4	-2.2		-1.7	-1.6	
of which: contribution from average real interest rate	-3.3	-3.1	-1.5			-1.6	-1.1	-0.9	-0.8	-0.7	-0.6		-0.7	-0.7	
of which: contribution from real GDP growth	-3.2	-2.8	-2.3			-2.2	-2.3	-2.0	-1.8	-1.7	-1.6		-1.0	-0.9	
Contribution from real exchange rate depreciation	4.5	1.1	-3.7			-1.7	-0.3	-0.2	-0.2	-0.1	-0.1		...	...	
Other identified debt-creating flows	-1.0	-0.1	-1.0			-0.1	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)	-1.0	-0.1	-1.0			-0.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	-2.2	-1.2	4.6			0.8	-0.4	0.4	0.4	0.4	0.5		1.6	-0.1	
Other Sustainability Indicators															
PV of public sector debt	...	...	33.1			29.9	26.3	24.6	23.0	21.6	20.2		19.2	18.2	
of which: foreign-currency denominated	...	...	15.6			15.5	14.7	13.5	12.3	11.2	10.0		8.3	11.5	
of which: external	...	...	15.6			15.5	14.7	13.5	12.3	11.2	10.0		8.3	11.5	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	1.3	-0.8	2.1			1.1	1.0	1.2	1.1	0.9	1.0		2.4	2.8	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	241.4			180.0	154.1	147.7	141.1	131.1	122.0		136.8	139.7	
PV of public sector debt-to-revenue ratio (in percent)	...	...	397.9			325.6	277.0	251.7	228.8	208.4	190.6		159.6	151.3	
of which: external 3/	...	...	188.2			168.1	155.1	137.6	122.2	108.7	94.4		69.0	95.8	
Debt service-to-revenue and grants ratio (in percent) 4/	8.9	9.4	3.8			9.1	7.7	6.3	6.2	5.9	7.1		5.7	3.4	
Debt service-to-revenue ratio (in percent) 4/	18.0	16.3	6.2			16.5	13.9	10.8	10.1	9.4	11.1		6.6	3.7	
Primary deficit that stabilizes the debt-to-GDP ratio	5.1	6.0	3.9			4.8	4.1	2.7	2.4	2.1	1.8		0.1	1.8	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	4.8	4.5	4.3	-0.8	12.7	4.3	5.0	5.0	5.0	5.0	5.0	4.9	3.5	3.4	3.4
Average nominal interest rate on forex debt (in percent)	0.9	0.9	0.6	1.8	0.8	0.5	0.5	0.6	0.6	0.7	0.7	0.6	0.9	0.9	0.9
Average real interest rate on domestic debt (in percent)	-5.0	-5.0	-2.6	-0.2	6.1	-2.8	-2.0	-1.6	-1.5	-1.4	-1.5	-1.8	-3.0	...	-2.6
Real exchange rate depreciation (in percent, + indicates depreciation	13.3	3.2	-10.9	2.5	7.5	-5.1	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	6.2	6.3	3.5	5.1	2.9	3.9	3.4	3.2	3.0	2.9	2.9	3.2	3.3	3.3	3.3
Growth of real primary spending (deflated by GDP deflator, in percer	24.3	-12.4	25.5	3.7	11.8	11.1	9.3	5.8	2.5	5.6	5.1	6.6	3.5	3.4	3.2
Grant element of new external borrowing (in percent)	...	...	...	...	...	37.0	37.4	51.4	51.4	51.4	51.4	46.7	51.4	51.4	...

Sources: Country authorities; and staff estimates and projections.

1/ [Indicate 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.

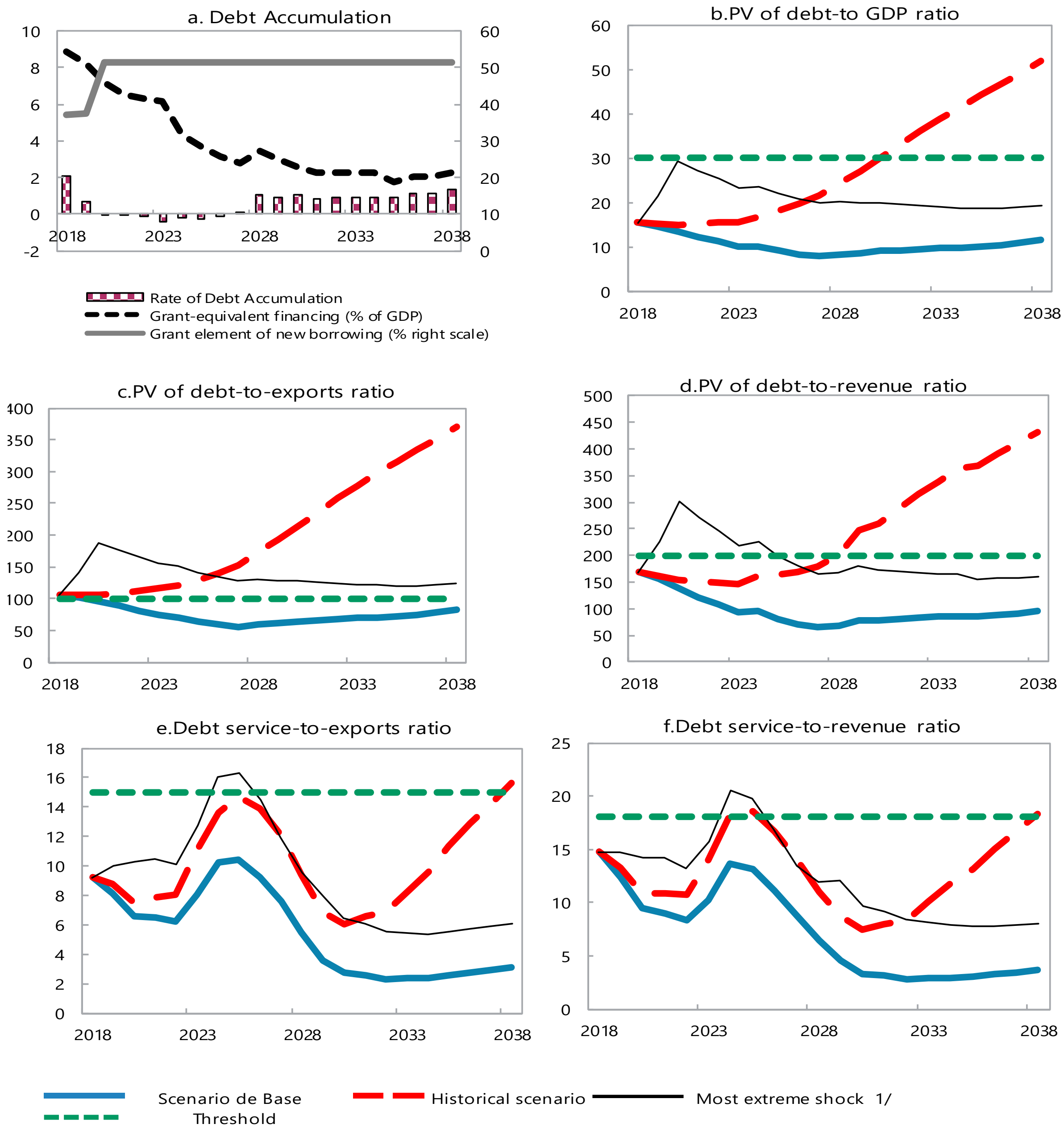
5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

Table 4. Central African Republic: Sensitivity Analysis for Key Indicators of Public Debt, 2018–38

	Projections							
	2018	2019	2020	2021	2022	2023	2028	2038
PV of Debt-to-GDP Ratio								
Baseline	30	26	25	23	22	20	19	18
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	30	28	28	28	28	29	29	19
A2. Primary balance is unchanged from 2018	30	26	24	22	20	19	12	-2
A3. Permanently lower GDP growth 1/	30	27	26	26	25	25	34	70
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2019-20	30	33	40	39	39	39	50	65
B2. Primary balance is at historical average minus one standard deviations in 2019-202	30	28	28	26	24	23	22	20
B3. Combination of B1-B2 using one half standard deviation shocks	30	31	34	33	32	32	37	46
B4. One-time 30 percent real depreciation in 2019	30	32	30	28	26	24	20	17
B5. 10 percent of GDP increase in other debt-creating flows in 2019	30	31	29	27	26	24	23	20
PV of Debt-to-Revenue Ratio 2/								
Baseline	180	154	148	141	131	122	137	140
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	180	162	162	162	158	155	191	128
A2. Primary balance is unchanged from 2018	180	153	145	136	124	113	88	-12
A3. Permanently lower GDP growth 1/	180	157	154	152	147	144	232	507
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2019-20	180	176	199	204	204	204	334	486
B2. Primary balance is at historical average minus one standard deviations in 2019-202	180	164	167	159	148	138	155	151
B3. Combination of B1-B2 using one half standard deviation shocks	180	171	181	182	177	174	257	347
B4. One-time 30 percent real depreciation in 2019	180	188	179	170	157	145	146	131
B5. 10 percent of GDP increase in other debt-creating flows in 2019	180	183	176	168	156	146	164	157
Debt Service-to-Revenue Ratio 2/								
Baseline	9	8	6	6	6	7	6	3
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	9	8	7	7	7	9	8	4
A2. Primary balance is unchanged from 2018	9	8	6	6	6	7	5	-1
A3. Permanently lower GDP growth 1/	9	8	7	7	6	8	8	13
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2019-20	9	9	8	8	8	10	10	16
B2. Primary balance is at historical average minus one standard deviations in 2019-202	9	8	7	7	6	7	6	4
B3. Combination of B1-B2 using one half standard deviation shocks	9	8	7	8	7	9	8	11
B4. One-time 30 percent real depreciation in 2019	9	9	9	9	8	10	8	6
B5. 10 percent of GDP increase in other debt-creating flows in 2019	9	8	7	7	6	7	6	5

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.

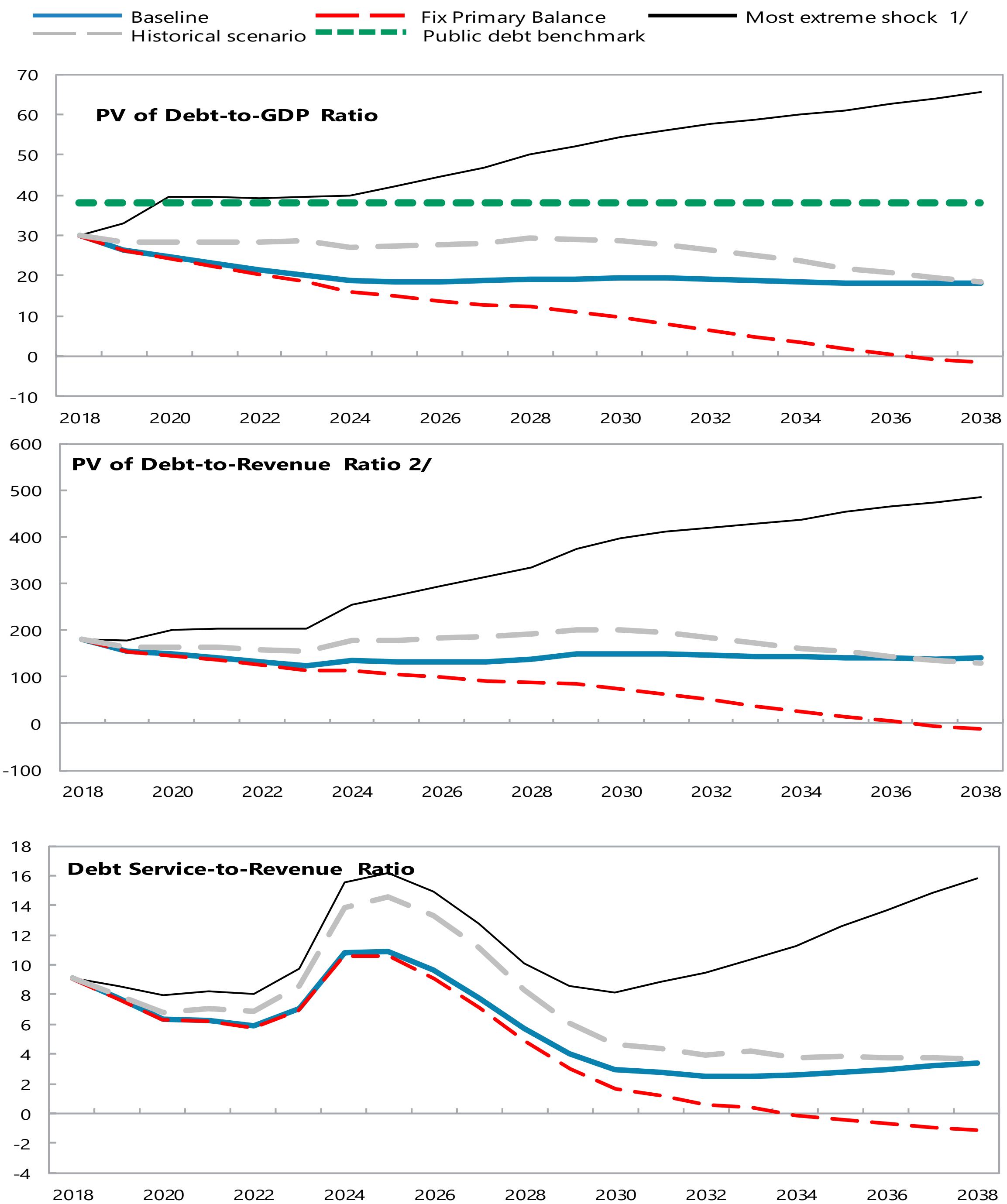
Figure 1. Central African Republic: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2018–38 1/



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 2028. In figure b. it corresponds to a Combination shock; in c. to a Combination shock; in d. to a Combination shock; in e. to a Exports shock and in figure f. to a Combination shock

Figure 2. Central African Republic: Indicators of Public Debt Under Alternative Scenarios, 2018–38



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 2028.
2/ Revenues are defined inclusive of grants.