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GUINEA-BISSAU

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FIFTH REVIEW UNDER THE EXTENDED CREDIT FACILITY ARRANGEMENT, REQUESTS FOR EXTENSION AND AUGMENTATION OF ACCESS, AND FINANCING ASSURANCES REVIEW—DEBT SUSTAINABILITY ANALYSIS

Approved By
Roger Nord and Johannes Wiegand (IMF) and Paloma Anos Casero (IDA)

Prepared jointly by the Staffs of the International Monetary Fund and the International Development Association.[1, 2]

Guinea-Bissau remains at moderate risk of external debt distress, with heightened vulnerabilities on total public debt. Compared to the last Debt Sustainability Analysis (DSA)[3], the current DSA reflects a widening of the overall fiscal cash deficit by about 0.4 percent of GDP in 2018-19, driven by an increase in government investment, and a moderately greater share of domestic financing. The medium and long-term outlook is otherwise broadly unchanged. Under the baseline scenario, all external debt indicators are below their indicative policy-dependent thresholds throughout the projection period. However, the PV of debt-to-exports ratio breaches its threshold for an extended period under the most extreme shock scenario. Overall public debt, while projected to decline, is above its indicative benchmark and is expected to remain so over the next four years. There is therefore a need to pursue prudent fiscal and debt management policies and strengthen debt management capacity. The results of the DSA are contingent on the authorities successfully implementing structural reforms, improving the business environment to boost production and exports, and relying mainly on concessional borrowing and grants for project financing.

[1] The DSA was prepared jointly by the staffs of the IMF and IDA, in consultation with the Debt Directorate of the Bissau-Guinean Ministry of Finance, and benefitted from comments from the World Bank. The fiscal year of Guinea-Bissau is January 1—December 31.

[2] Debt sustainability thresholds are determined by the three-year (2014–16) average of the Country Policy and Institutional Assessment (CPIA) rating (2.5), which classifies Guinea-Bissau as having weak policy performance and institutional framework.

[3] The previous DSA was prepared in November 21, 2017. IMF Country Report No. 17/384

BACKGROUND

1. **Overall, Guinea-Bissau's public debt position has continued to improve.** Enhanced revenue mobilization and careful control of expenditure resulted in a marked reduction of the fiscal deficit to under 2 percent of GDP in 2017. Moreover, the authorities have maintained their commitment to bolstering debt management. They are increasingly benefitting from TA from development partners, including AFRITAC West, to enhance their administrative capacity. They continue to negotiate rescheduling and/or outright cancellation of remaining legacy arrears with external creditors.[4] They are borrowing in foreign currency only on concessional terms. At the same time, although the authorities are pursuing grants and concessional financing for all infrastructure projects, non-concessional financing in domestic currency has lately been rising, due mainly to increased borrowing from West African Bank for Development (BOAD).

2. **A scaling up of investment to address gaps in the country's infrastructure is underway.** Government capital spending, almost all foreign-financed, increased from 6.1 percent of GDP in 2016 to 7 percent in 2017 and is projected to reach 8.5 percent in 2018–19. The impact on debt dynamics will be checked by continued strengthening of revenues and plans to keep the overall deficit within the 3 percent of GDP WAEMU criterion. While the authorities signed in 2017 new loans for infrastructure amounting to more than 8 percent of GDP, disbursement on these loans is expected to take place over a number of years.[5] Indeed, only a small part (0.3 percent of GDP) of the new loans is reflected in the 2018 budget, consistent with likely implementation but also reflecting a need to strengthen investment planning and the associated borrowing strategy.

3. **The outlook is supported by sustained economic growth.** Real GDP growth has averaged about 6 percent in 2015–17 and is projected at about 5 percent into the medium and long term. International cashew prices, which hit a record in the 2017 cashew campaign, are expected to remain close to the recent high, adding incentives for continued strong cashew production and export. Domestic policies to improve the business environment, enhance the supply and availability of electricity and water, and address other large infrastructure gaps are also expected to support economic activity and help moderate the debt service ratios.

4. **Debt trajectories, although improved, remain subject to adverse shocks.** Guinea-Bissau's economy is vulnerable to adverse export shocks due to its limited diversification. If cashew prices dip, export earnings would decline and fiscal receipts dwindle. Absent policy adjustment, this would weaken the present value (PV) of debt-to-exports and of debt-to-revenue ratios along with related debt service ratios. Further, considering Guinea-Bissau's history of conflict, a reescalation of political tensions could frustrate prudent economic and fiscal policies, and dent debt sustainability.

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[4] Guinea-Bissau has arrears, totaling USD$ 44.5 million (3.3 percent of GDP) at end-2017, to Angola, Brazil, Libya, Russia, and Pakistan for longstanding debts that were not covered in the HIPC process.

[5] In 2017, Guinea-Bissau's government contracted loans totaling some US$112 million to boost electricity supply and road construction and diversify agriculture. Lenders include BOAD, the Arab Bank for Economic Development in Africa (BADEA), the Saudi Fund for Development (SFD) and the African Development Bank (AfDB). Three loans from BOAD (76 percent of the total new loans) were all non-concessional as evaluated at the 35 percent grant element threshold. Most of the new loans are still not effective, as terms in the loan contracts (such as budget allocation of counterpart funds) have not yet been achieved and have yet to start disbursing. In addition, loans for US$39.5 million were signed by public enterprises.

BASELINE ASSUMPTIONS

5. Macroeconomic projections are slightly different from the November 2017 DSA (Box 1). Compared to the previous estimates and projections, real GDP growth for 2016-19 has edged up, the fiscal deficit is slightly smaller in 2017 but larger in 2018, and the external current account deficit is slightly larger 2017 and through most of the medium term. Moreover, beyond 2019, the upward trend in the external debt-GDP ratio has been smoothed out to reflect a somewhat slower expansion in the externally-financed part of the public investment program.

Box 1. Baseline Macroeconomic Assumptions

Real GDP growth: Real GDP growth, estimated at 5.9 percent in 2017 (up from 5.5 percent previously), is projected to moderate to 5.3 percent in 2018 and then 5 percent over the medium and long term. The better growth performance in 2017 reflects higher farmers' incomes from cashew prices and increased construction activity. The steady projected growth over the medium and long term is supported by anticipated higher public and private investments (including in electricity, water, and roads), structural reforms (in public financial management, tax administration and debt management) and enhancements in the business environment generally.

Key Macroeconomic Assumptions and Projections
(in percent of GDP, unless otherwise indicated)

	2016	2017	2018	2019	Medium Term (first six years)	Long Term[1]
Real GDP growth (percent)						
Previous DSA	5.8	5.5	5.0	5.0	5.1	5.0
Current DSA	6.3	5.9	5.3	5.2	5.1	5.0
Primary fiscal balance (cash basis)						
Previous DSA	-3.6	-1.4	-1.9	-1.9	-1.8	-2.1
Current DSA	-3.5	-1.0	-2.1	-2.0	-1.9	-2.1
Non-interest current account balance						
Previous DSA	1.6	0.1	-2.2	-2.7	-1.5	-2.8
Current DSA	1.6	-0.3	-3.1	-2.2	-2.1	-2.9
External debt						
Previous DSA	14.4	12.5	13.0	13.7	14.2	18.5
Current DSA	14.7	12.4	12.0	12.2	13.8	17.9
Domestic debt						
Previous DSA	39.7	36.7	35.3	33.6	32.3	19.5
Current DSA	38.6	37.7	38.3	36.6	33.0	20.5

Source: Bissau-Guinean authorities and staff estimates.
[1] Covers the period 2024-38 for the current DSA, 2023-37 for the previous DSA.

Consumer price inflation: Inflation remained low in 2017, averaging just 1.1 percent. Reflecting increasing economic activity and rebound in global oil prices, consumer price inflation is expected to average over 2 percent in the medium-term but remain below the WAEMU convergence criterion (3 percent).

Government balances: The primary deficit is expected to widen to 2.1 percent of GDP in 2018 and then stay broadly at that level. Reforms to improve debt management are anticipated to reinforce the positive fiscal trends.

External current account balance: In 2017 higher cashew export prices were not sufficient to offset higher imports, especially of construction materials, turning the current account balance into an estimated primary deficit of 0.3 percent of GDP in 2017. In 2018, the primary current account deficit is projected at 3.1 percent of GDP, reflecting lower cashew prices, higher oil prices, absence of EU fishing compensation, and increased imports associated with higher investment activity.

Official financing flows: Official transfers are expected to increase slightly from the current 4.7 percent of GDP and average around 5 percent of GDP in the long term. Concessional loans are assumed to be at the standard terms—i.e., 0.75 percent interest rate with 38 (IDA) and 20 (AFDB) years maturity and six-year grace period. Paris Club (Non-Paris Club) loans assume average interest rates of 1.2 (2) percent with 23 (20) years of maturity and 6 (10) years grace period.

EXTERNAL AND PUBLIC DEBT SUSTAINABILITY

A. External Debt Sustainability Analysis

6. **Guinea-Bissau remains at moderate risk of debt distress.** All the indicators for external debt are lower than their respective policy-dependent thresholds throughout the projection period (2018–38) under the baseline scenario. The results indicate some room for debt-financed projects. However, the uncertainty associated with new borrowing for the authorities' ambitious investment plans, and especially the large amount of new loans signed in 2017, entails new risks. To curb that upward trend, new project borrowing is expected to be at favorable/concessional terms or otherwise restrained over the coming years. To support this outcome, it would be important that new project loans are signed only when projects are selected following recognized assessment procedures, backed by a sector plan, and ready to be executed.

7. **The external debt outlook remains vulnerable to adverse export and currency depreciation shocks.** As in the previous DSA, the PV of debt-to-exports ratio breaches its threshold in the most extreme exports shock scenario. A depreciation of the Communauté Financière Africaine Franc (CFAF) relative to the currencies of main trading partners would add to this vulnerability, as debt service costs would rise in domestic currency terms. These risks underscore the need to diversify the economy and increase its resilience to shocks.

B. Public Debt Sustainability Analysis

8. **The PV of total public debt-to-GDP ratio, while projected to decline in the long term, is above its indicative benchmark and is expected to remain so over the next four years.** At end-2017, domestic debt (currency basis) amounted to 38.5 percent of GDP. This included project financing from BOAD (14.4 percent of GDP), debt to BCEAO (12.5 percent), local banks (2.9 percent), government debt guarantees (0.8 percent of GDP), T-bills held by regional commercial banks (3.8 percent of GDP), and arrears to local suppliers (estimated at 4.1 percent of GDP).[6] The current assessment shows the same general path as in the last DSA, with reductions in the baseline PV of debt-to-revenue and debt service-to-revenue ratios, reflecting projected improvements in fiscal revenues.

9. **The most extreme shock shows the effect of an increase in contingency liabilities of 10 percent of GDP in 2019 (Figure 2 and Table 4).** This shock would be consistent with the combined materialization of contingencies stemming from: (i) the possibility that legitimate domestic arrears could be larger than what is counted as part of government debt; (ii) outstanding government guarantees; (iii) debts of state-owned enterprises; and (iv) potential costs relating to the disputed bank bailout. The authorities are taking measures to contain these contingent liabilities and the associated risks to debt sustainability.

10. **Sensitivity tests indicate broadly the same vulnerability to shocks as the previous DSA.** In a scenario with growth and the fiscal primary balance at historical averages, most PV of debt ratios slightly exceed the previous levels for the period 2018-2022. The development in debt service is more mixed, with

[6] The Guinea-Bissau authorities are seeking support from development partners to audit all outstanding claims as soon as possible. The Government aims to develop by end-2018 a reimbursement strategy for settling all legitimate domestic arrears.

ratios falling above or below those of the previous DSA depending on the timeframe. This comparative performance does not change under the other two alternative scenarios—(i) primary balance unchanged from 2018, and (ii) permanently lower GDP growth (Table 4).

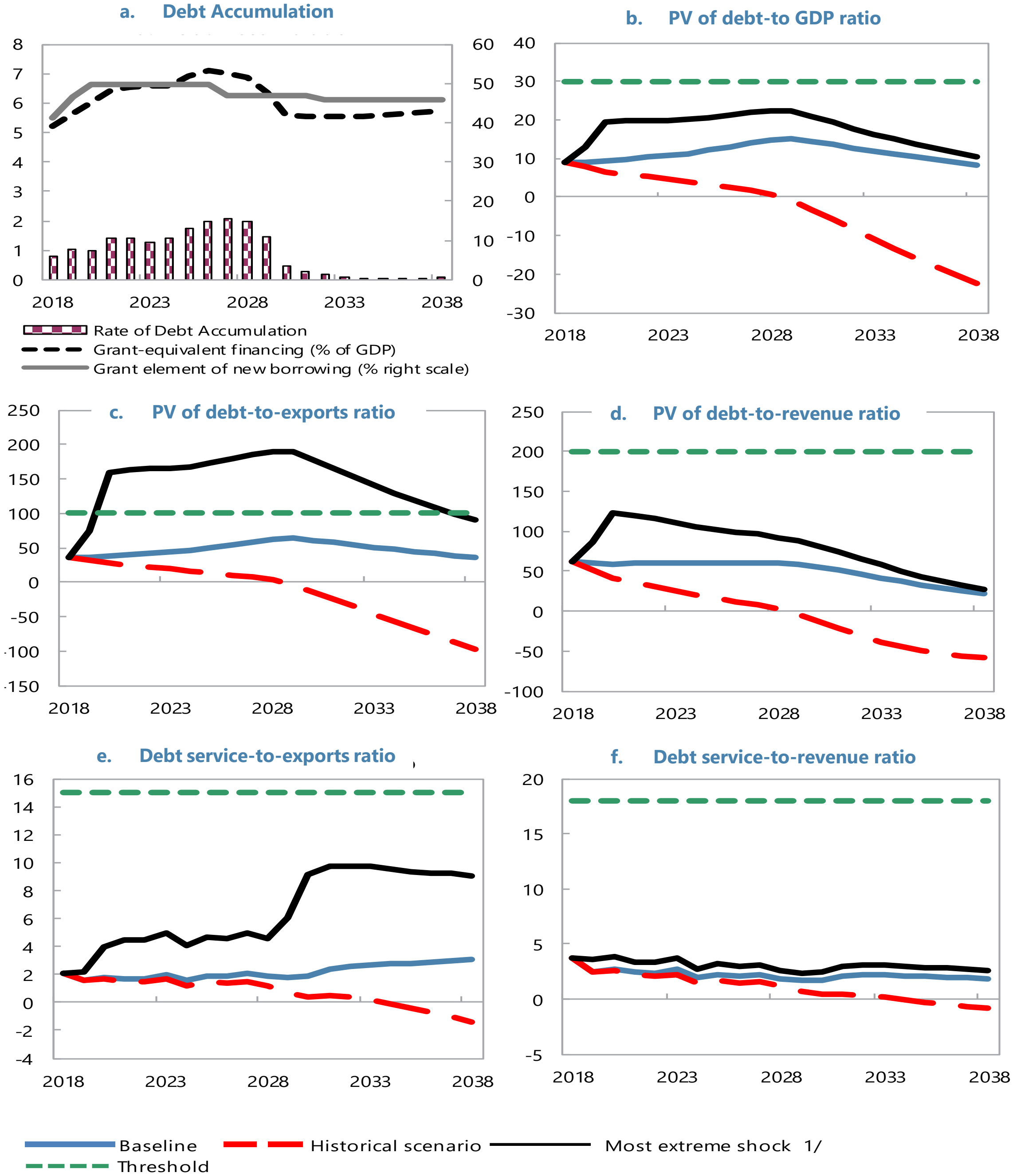
CONCLUSIONS

11. Despite the moderate risk of external debt distress, the authorities should remain prudent in debt contracting. Vulnerabilities remain, particularly as exports are derived almost exclusively from cashew and related activity. This risk could be moderated by policies on four broad fronts: (i) vigorous pursuit, and conclusion with relevant creditors of a rescheduling and/or outright cancellation of arrears outstanding after the Paris Club agreement; (ii) enhanced debt management, by more rigorous compilation and monitoring of debts and publication of regular debt reports (iii) continued prudent borrowing policies, including borrowing on mostly concessional terms; and (iv) revenue enhancement, sustained fiscal consolidation efforts, continued implementation of growth-enhancing reforms, and advances in economic diversification. Thus, despite room for concessional borrowing, the authorities need to exercise caution in new debt contracting and apply recognized assessment procedures to ensure criticality as well as concessionality.

AUTHORITIES' VIEWS

12. The authorities broadly concur with staff's views on debt sustainability and the recommendations. They agree that debt sustainability depends crucially on sound macroeconomic policies. They emphasized that the pace of public investment would be determined by available external concessional resources and committed to integrate better new borrowing in planning and budgeting frameworks. Thus, some risks identified in this DSA may not materialize. The authorities recognize the contributory role of prudent debt management and implementation of structural reforms to improve the business environment and to enhance overall growth and export prospects.

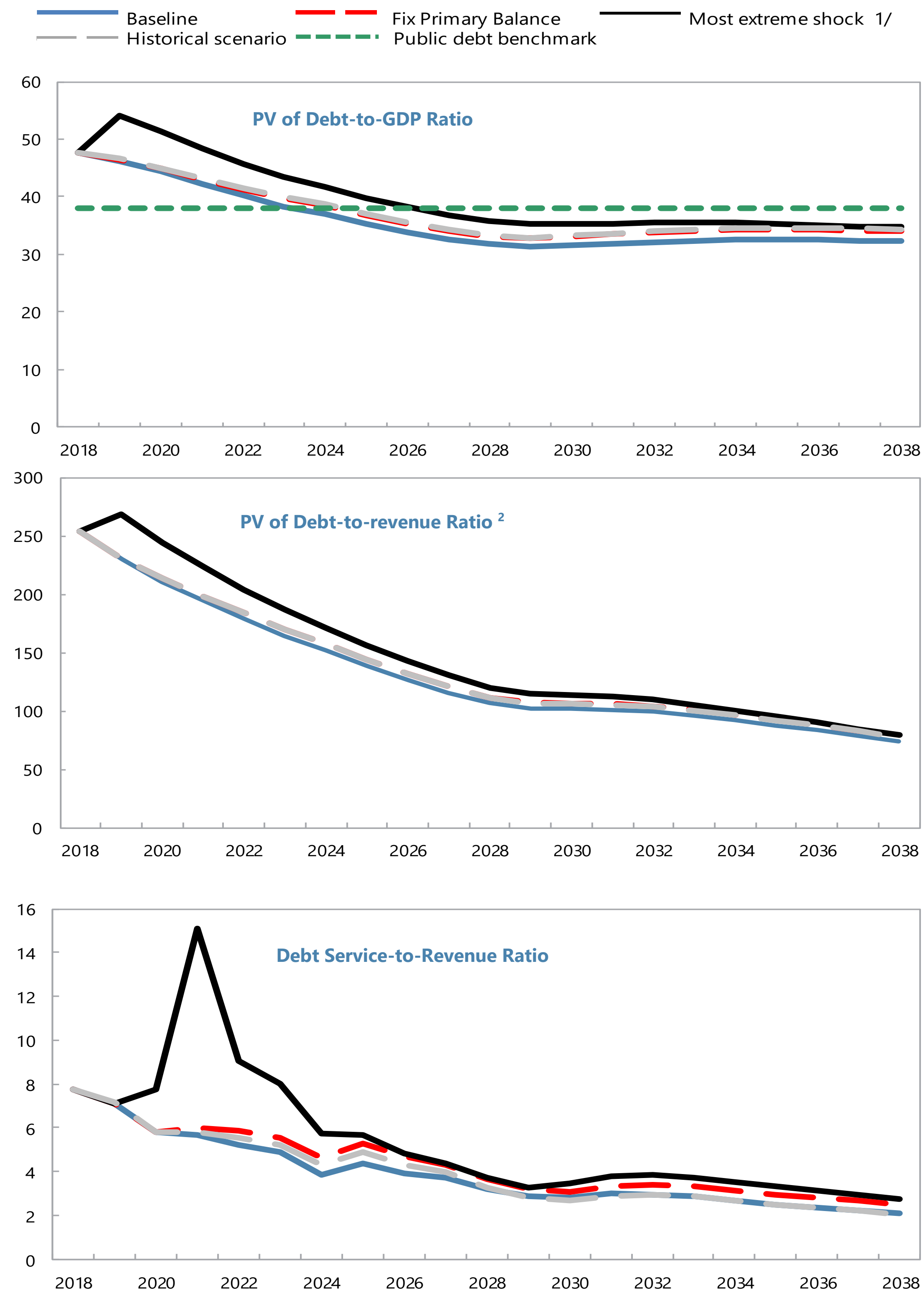
Figure 1. Guinea-Bissau: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2018–38 1/



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 Exports shock; in c. to a Exports shock; in d. to a Exports shock; in e. to a Exports shock and in figure f. to a One-time depreciation shock

Figure 2. Guinea-Bissau: Indicators of Public 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.
2/ Revenues are defined inclusive of grants.

Table 1. Guinea-Bissau: External Debt Sustainability Framework, Baseline Scenario, 2015–38 1/

(In 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/	**15.1**	**14.7**	**12.4**			**12.0**	**12.2**	**12.8**	**14.1**	**15.2**	**16.1**		**23.1**	**11.5**	
of which: public and publicly guaranteed (PPG)	15.1	14.7	12.4			12.0	12.2	12.8	14.1	15.2	16.1		23.1	11.5	
Change in external debt	0.1	-0.4	-2.3			-0.4	0.2	0.6	1.3	1.2	0.9		1.2	-0.8	
Identified net debt-creating flows	-3.3	-4.9	-4.1			-0.1	-1.2	-0.9	-1.0	-1.2	-1.4		0.3	2.6	
Non-interest current account deficit	**-2.0**	**-1.6**	**0.3**	**-1.1**	**1.2**	**3.1**	**2.2**	**2.0**	**2.0**	**1.8**	**1.7**		**2.4**	**4.1**	2.9
Deficit in balance of goods and services	4.7	4.8	4.2			6.5	6.0	5.6	5.3	5.0	4.7		4.8	5.5	
Exports	27.5	26.5	27.4			24.8	24.8	24.7	24.5	24.4	24.3		23.8	23.1	
Imports	32.2	31.3	31.6			31.3	30.7	30.3	29.8	29.4	29.0		28.6	28.6	
Net current transfers (negative = inflow)	-4.1	-3.5	-3.5	-3.7	0.3	-2.3	-2.2	-2.2	-2.1	-2.0	-1.9		-1.6	-1.1	-1.4
of which: official	-0.9	0.0	-0.4			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other current account flows (negative = net inflow)	-2.6	-2.8	-0.4			-1.1	-1.5	-1.4	-1.2	-1.1	-1.1		-0.8	-0.4	
Net FDI (negative = inflow)	**-1.5**	**-2.0**	**-2.8**	**-2.1**	**0.6**	**-2.8**	**-2.9**	**-2.5**	**-2.5**	**-2.5**	**-2.5**		**-1.4**	**-1.1**	-1.4
Endogenous debt dynamics 2/	**0.3**	**-1.4**	**-1.7**			**-0.4**	**-0.4**	**-0.4**	**-0.4**	**-0.5**	**-0.5**		**-0.8**	**-0.5**	
Contribution from nominal interest rate	0.2	0.3	0.2			0.1	0.1	0.1	0.1	0.2	0.2		0.2	0.1	
Contribution from real GDP growth	-0.9	-0.8	-0.8			-0.6	-0.6	-0.6	-0.6	-0.6	-0.7		-1.0	-0.6	
Contribution from price and exchange rate changes	1.0	-0.8	-1.1			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**3.4**	**4.6**	**1.8**			**-0.3**	**1.4**	**1.5**	**2.3**	**2.3**	**2.2**		**1.0**	**-3.4**	
of which: exceptional financing	0.1	-0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	9.1			8.8	9.1	9.3	9.8	10.4	10.8		14.7	8.3	
In percent of exports	...	...	33.1			35.6	36.5	37.6	40.1	42.6	44.4		61.9	36.1	
PV of PPG external debt	**...**	**...**	**9.1**			**8.8**	**9.1**	**9.3**	**9.8**	**10.4**	**10.8**		**14.7**	**8.3**	
In percent of exports	**...**	**...**	**33.1**			**35.6**	**36.5**	**37.6**	**40.1**	**42.6**	**44.4**		**61.9**	**36.1**	
In percent of government revenues	**...**	**...**	**70.7**			**62.8**	**59.6**	**58.1**	**59.6**	**60.6**	**60.1**		**60.4**	**21.7**	
Debt service-to-exports ratio (in percent)	**1.2**	**2.1**	**12.3**			**4.5**	**1.5**	**1.8**	**1.6**	**1.7**	**2.0**		**1.9**	**3.0**	
PPG debt service-to-exports ratio (in percent)	**1.9**	**2.1**	**12.3**			**2.3**	**1.5**	**1.8**	**1.6**	**1.7**	**2.0**		**1.9**	**3.0**	
PPG debt service-to-revenue ratio (in percent)	**3.8**	**4.6**	**26.2**			**4.0**	**2.5**	**2.7**	**2.4**	**2.4**	**2.6**		**1.8**	**1.8**	
Total gross financing need (Millions of U.S. dollars)	-33.8	-35.3	12.6			22.5	-6.1	-0.6	-2.6	-5.6	-8.0		51.4	276.5	
Non-interest current account deficit that stabilizes debt ratio	-2.1	-1.2	2.7			3.5	1.9	1.4	0.7	0.7	0.8		1.2	4.9	
Key macroeconomic assumptions															
Real GDP growth (in percent)	6.1	6.3	5.9	6.1	0.2	5.3	5.2	5.0	5.0	5.0	5.0	5.1	5.0	5.0	5.0
GDP deflator in US dollar terms (change in percent)	-6.4	5.8	8.1	2.5	7.8	9.9	3.4	3.6	3.3	3.3	3.3	4.5	2.8	2.8	2.8
Effective interest rate (percent) 5/	1.0	2.2	1.3	1.5	0.6	1.3	1.2	1.3	1.2	1.2	1.2	1.2	1.2	0.9	1.2
Growth of exports of G&S (US dollar terms, in percent)	35.4	8.2	18.2	20.6	13.8	4.9	8.7	8.2	7.8	8.0	7.9	7.6	7.6	7.7	7.6
Growth of imports of G&S (US dollar terms, in percent)	2.1	9.2	15.6	8.9	6.8	14.5	7.0	7.1	6.8	6.9	6.9	8.2	8.0	8.0	7.9
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	41.1	46.7	49.6	49.6	49.6	49.6	47.7	46.9	45.8	46.9
Government revenues (excluding grants, in percent of GDP)	13.7	12.1	12.8			14.1	15.2	15.9	16.5	17.2	17.9		24.4	38.5	27.3
Aid flows (in Millions of US dollars) 7/	67.9	46.6	73.8			83.9	104.8	128.4	155.1	169.8	182.3		292.5	452.1	
of which: Grants	67.9	46.6	73.8			73.7	84.2	94.3	104.3	115.4	127.6		187.2	402.9	
of which: Concessional loans	0.0	0.0	0.0			10.1	20.6	34.1	50.8	54.4	54.7		105.3	49.2	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			5.2	5.6	6.0	6.5	6.6	6.6		6.8	5.7	6.1
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			87.8	87.9	86.6	83.5	83.9	84.9		80.9	94.1	90.8
Memorandum items:															
Nominal GDP (Millions of US dollars)	1048.3	1178.7	1349.5			1562.1	1698.6	1847.3	2002.7	2173.0	2356.0		3456.4	7438.7	
Nominal dollar GDP growth	-0.6	12.4	14.5			15.7	8.7	8.8	8.4	8.5	8.4	9.8	8.0	8.0	8.0
PV of PPG external debt (in Millions of US dollars)			128.2			138.6	154.8	171.7	197.9	226.3	254.0		509.1	620.9	
(PVt-PVt-1)/GDPt-1 (in percent)						0.8	1.0	1.0	1.4	1.4	1.3	1.2	2.0	0.1	0.8
Gross workers' remittances (Millions of US dollars)	32.7	39.2	31.8			36.3	38.2	40.1	41.9	43.7	45.5		54.6	78.6	
PV of PPG external debt (in percent of GDP + remittances)	...	...	8.9			8.6	8.9	9.1	9.6	10.2	10.6		14.5	8.3	
PV of PPG external debt (in percent of exports + remittances)	...	...	30.5			32.5	33.5	34.5	37.0	39.4	41.1		58.0	34.5	
Debt service of PPG external debt (in percent of exports + remittance	...	...	11.3			2.1	1.4	1.6	1.5	1.5	1.8		1.8	2.9	

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. Guinea-Bissau: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2018–38

(In percent)

	Projections							
	2018	2019	2020	2021	2022	2023	**2028**	2038
PV of debt-to GDP ratio								
Baseline	9	9	9	10	10	11	**15**	8
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2018-2038 1/	9	8	7	6	5	5	**1**	-22
A2. New public sector loans on less favorable terms in 2018-2038 2	9	9	10	11	12	13	**20**	13
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	9	9	10	10	11	11	**15**	9
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	9	13	20	20	20	20	**22**	10
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	9	10	12	13	13	14	**19**	11
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	9	11	12	13	13	14	**17**	9
B5. Combination of B1-B4 using one-half standard deviation shocks	9	12	16	17	17	17	**21**	11
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	9	13	13	14	15	15	**21**	12
PV of debt-to-exports ratio								
Baseline	36	37	38	40	43	44	**62**	36
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2018-2038 1/	36	31	27	24	22	19	**3**	-97
A2. New public sector loans on less favorable terms in 2018-2038 2	36	38	41	46	51	54	**85**	55
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	36	37	38	40	43	44	**62**	36
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	36	75	160	162	164	165	**190**	91
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	36	37	38	40	43	44	**62**	36
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	36	44	50	53	55	56	**72**	39
B5. Combination of B1-B4 using one-half standard deviation shocks	36	50	70	72	74	76	**94**	49
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	36	37	38	40	43	44	**62**	36
PV of debt-to-revenue ratio								
Baseline	63	60	58	60	61	60	**60**	22
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2018-2038 1/	63	51	42	36	31	26	**3**	-58
A2. New public sector loans on less favorable terms in 2018-2038 2	63	62	63	68	72	74	**83**	33
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	63	61	60	62	63	62	**63**	22
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	63	85	123	120	116	111	**92**	27
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	63	67	74	76	77	76	**76**	27
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	63	71	78	78	78	76	**70**	23
B5. Combination of B1-B4 using one-half standard deviation shocks	63	78	102	101	99	96	**86**	28
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	63	84	82	84	85	85	**85**	31

Table 2. Guinea-Bissau: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2018–38 (concluded)

(In percent)

	Projections							
	2018	2019	2020	2021	2022	2023	**2028**	2038
Debt service-to-exports ratio								
Baseline	2	2	2	2	2	2	**2**	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2018-2038 1/	2	2	2	1	1	2	**1**	-1
A2. New public sector loans on less favorable terms in 2018-2038 2	2	2	2	2	2	2	**3**	5
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	2	2	2	2	2	2	**2**	3
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	2	2	4	4	4	5	**5**	9
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	2	2	2	2	2	2	**2**	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	2	2	2	2	2	2	**2**	3
B5. Combination of B1-B4 using one-half standard deviation shocks	2	2	2	2	2	3	**2**	5
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	2	2	2	2	2	2	**2**	3
Debt service-to-revenue ratio								
Baseline	4	3	3	2	2	3	**2**	2
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2018-2038 1/	4	3	3	2	2	2	**1**	-1
A2. New public sector loans on less favorable terms in 2018-2038 2	4	3	3	3	3	3	**3**	3
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	4	3	3	2	2	3	**2**	2
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	4	3	3	3	3	3	**2**	3
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	4	3	3	3	3	3	**2**	2
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	4	3	3	3	3	3	**2**	2
B5. Combination of B1-B4 using one-half standard deviation shocks	4	3	3	3	3	3	**2**	3
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	4	4	4	3	3	4	**3**	3
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	47	47	47	47	47	47	**47**	47

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 a 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. Guinea-Bissau: Public Sector Sustainability Framework, Baseline Scenario, 2015–38

(In percent of GDP unless otherwise indicated)

	Actual			Average 5/	Standard Deviation 5/	Estimate	Projections								
	2015	2016	2017			2018	2019	2020	2021	2022	2023	2018-23 Average	2028	2038	2024-38 Average
Public sector debt 1/	52.4	53.9	50.8			50.9	49.4	47.9	46.5	45.1	43.7		40.1	35.5	
of which: foreign-currency denominated	15.1	14.7	12.4			12.0	12.2	12.8	14.1	15.3	16.1		23.1	11.5	
Net public debt	50.8	52.8	49.1			49.0	47.7	46.3	45.0	43.7	42.4		39.3	35.1	
Change in public sector debt	-2.6	1.5	-3.1			0.1	-1.5	-1.5	-1.4	-1.4	-1.4		-0.5	-0.2	
Identified debt-creating flows	-2.7	-1.2	-8.8			-0.4	-1.1	-1.3	-1.2	-1.2	-1.3		-0.5	-0.2	
Primary deficit	2.9	3.5	1.0	2.5	1.3	2.2	1.9	1.7	1.8	1.8	1.6	1.8	2.1	2.2	2.0
Revenue and grants	20.2	16.0	18.3			18.8	20.2	21.0	21.7	22.5	23.3		29.8	43.9	
of which: grants	6.5	4.0	5.5			4.7	5.0	5.1	5.2	5.3	5.4		5.4	5.4	
Primary (noninterest) expenditure	23.1	19.5	19.3			21.0	22.1	22.8	23.5	24.2	25.0		31.9	46.2	34.8
Automatic debt dynamics	-6.3	-4.8	-6.8			-2.5	-3.0	-3.0	-3.0	-3.0	-2.9		-2.6	-2.5	
Contribution from interest rate/growth differential	-6.7	-4.6	-4.9			-2.2	-2.9	-2.9	-2.9	-2.9	-2.8		-2.4	-2.4	
of which: contribution from average real interest rate	-3.5	-1.5	-1.9			0.4	-0.4	-0.5	-0.6	-0.6	-0.6		-0.5	-0.7	
of which: contribution from real GDP growth	-3.2	-3.1	-3.0			-2.6	-2.5	-2.4	-2.3	-2.2	-2.1		-1.9	-1.7	
Contribution from real exchange rate depreciation	0.3	-0.2	-1.9			-0.4	-0.1	-0.1	-0.2	-0.2	-0.2		...	...	
Other identified debt-creating flows	0.7	0.0	-3.0			-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	0.7	0.0	0.2			-0.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Debt relief (HIPC and other)	0.0	0.0	-3.2			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	0.1	2.7	5.7			0.5	-0.4	-0.2	-0.2	-0.2	-0.1		0.0	0.0	
Other Sustainability Indicators															
PV of public sector debt	...	...	47.5			47.7	46.3	44.4	42.2	40.2	38.3		31.8	32.4	
of which: foreign-currency denominated	...	...	9.0			8.8	9.1	9.3	9.8	10.4	10.8		14.7	8.3	
of which: external	...	...	9.0			8.8	9.1	9.3	9.8	10.4	10.8		14.7	8.3	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	11.1	10.1	9.8			7.6	6.7	5.7	5.4	4.9	4.4		4.1	3.6	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	259.7			253.2	229.6	210.8	194.5	179.1	164.2		106.6	73.8	
PV of public sector debt-to-revenue ratio (in percent)	...	...	370.5			337.9	304.4	278.4	255.8	234.5	213.8		130.3	84.1	
of which: external 3/	...	...	70.4			62.5	59.6	58.1	59.6	60.6	60.1		60.4	21.7	
Debt service-to-revenue and grants ratio (in percent) 4/	6.6	8.0	24.0			7.8	7.1	5.8	5.7	5.2	4.9		3.2	2.1	
Debt service-to-revenue ratio (in percent) 4/	9.8	10.7	34.3			10.4	9.4	7.6	7.5	6.9	6.4		3.9	2.4	
Primary deficit that stabilizes the debt-to-GDP ratio	5.5	2.0	4.1			2.1	3.4	3.3	3.2	3.2	3.0		2.6	2.5	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	6.1	6.3	5.9	4.0	2.9	5.3	5.1	5.0	5.0	5.0	5.0	5.1	5.0	5.0	5.0
Average nominal interest rate on forex debt (in percent)	1.0	2.2	1.3	0.1	1.3	1.3	1.2	1.7	2.1	2.2	2.4	1.8	2.5	3.2	2.8
Average real interest rate on domestic debt (in percent)	-9.2	-4.5	-4.6	-2.7	5.4	...	-0.7	-1.4	-1.7	-2.2	-2.4	-1.7	-3.4	-3.7	-3.5
Real exchange rate depreciation (in percent, + indicates depreciation	2.3	-1.2	-14.0	-0.7	8.0	-3.1	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	12.1	6.1	5.9	4.9	6.2	0.1	2.2	2.4	2.5	2.8	2.8	2.1	2.8	2.8	2.8
Growth of real primary spending (deflated by GDP deflator, in percer	-0.7	-10.0	4.5	-0.5	3.7	14.9	10.4	8.3	8.4	8.3	8.0	9.7	10.4	11.8	9.4
Grant element of new external borrowing (in percent)	...	...	...	...	...	41.1	46.7	49.6	49.6	49.6	49.6	47.7	46.9	45.8	...

Sources: Country authorities; and staff estimates and projections.

1/ Comprises public and publicly guaranteed central government debt on a gross basis.

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

3/ Revenues excluding grants.

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

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

Table 4. Guinea-Bissau: 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	48	46	44	42	40	38	32	32
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	48	47	45	43	41	40	33	34
A2. Primary balance is unchanged from 2018	48	46	45	43	41	40	33	34
A3. Permanently lower GDP growth 1/	48	47	45	43	42	40	37	52
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2019-202	48	48	48	46	45	43	40	47
B2. Primary balance is at historical average minus one standard deviations in 2019-202	48	47	47	44	42	40	33	33
B3. Combination of B1-B2 using one half standard deviation shocks	48	48	47	45	43	42	37	41
B4. One-time 30 percent real depreciation in 2019	48	50	47	45	42	40	31	33
B5. 10 percent of GDP increase in other debt-creating flows in 2019	48	54	51	48	46	43	36	35
PV of Debt-to-Revenue Ratio 2/								
Baseline	253	230	211	195	179	164	107	74
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	253	231	214	198	184	170	111	77
A2. Primary balance is unchanged from 2018	253	231	213	198	184	170	111	77
A3. Permanently lower GDP growth 1/	253	231	213	198	184	171	122	117
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2019-202	253	236	225	210	197	183	131	107
B2. Primary balance is at historical average minus one standard deviations in 2019-202	253	236	223	205	188	172	111	76
B3. Combination of B1-B2 using one half standard deviation shocks	253	236	222	207	192	178	122	94
B4. One-time 30 percent real depreciation in 2019	253	246	225	205	187	170	104	76
B5. 10 percent of GDP increase in other debt-creating flows in 2019	253	268	244	223	204	186	120	79
Debt Service-to-Revenue Ratio 2/								
Baseline	8	7	6	6	5	5	3	2
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	8	7	6	6	6	5	3	2
A2. Primary balance is unchanged from 2018	8	7	6	6	6	6	4	2
A3. Permanently lower GDP growth 1/	8	7	6	6	6	5	5	6
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2019-202	8	7	6	7	7	7	5	5
B2. Primary balance is at historical average minus one standard deviations in 2019-202	8	7	6	7	7	6	3	2
B3. Combination of B1-B2 using one half standard deviation shocks	8	7	6	7	7	6	5	4
B4. One-time 30 percent real depreciation in 2019	8	8	7	7	7	6	5	4
B5. 10 percent of GDP increase in other debt-creating flows in 2019	8	7	8	15	9	8	4	3

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.