GUINEA-BISSAU

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STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION AND FOURTH REVIEW UNDER THE EXTENDED CREDIT FACILITY ARRANGEMENT, AND FINANCING ASSURANCES REVIEW—DEBT SUSTAINABILITY ANALYSIS

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

Guinea-Bissau faces a moderate risk of debt distress, based on an assessment of public and publicly guaranteed external debt, but a heightened overall risk of debt distress, reflecting the currently high level of total public debt. Compared to last year's Debt Sustainability Analysis (DSA) update,[3] the current assessment scales down non-concessional domestic borrowing to a more realistic, affordable and sustainable trajectory, in line with the authorities' commitment to prioritize concessional borrowing and grants. It also assumes higher medium-term economic growth, premised on favorable external conditions and prudent domestic policies. Under the baseline scenario, all 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 in the long term, is slightly above its indicative benchmark and is expected to remain so over the next three-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 continuing to rely mainly on concessional borrowing.

[1] The DSA was prepared jointly by the staffs of the IMF and IDA, in consultation with the Debt Directorate of 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 (2.48), which classifies Guinea-Bissau as having weak policy performance and institutional framework.

[3] The previous DSA update was prepared in December 28, 2016. IMF Country Report No. 16/384.

BACKGROUND

1. **Overall, Guinea-Bissau's public external debt position has improved.** The authorities have maintained their commitment to shun non-concessional debt, while bolstering debt management. They are increasingly benefitting from TA from development partners, including AFRITAC West, to enhance their administrative capacity. They secured significant debt relief from Taiwan, China,[4] paid down some other legacy arrears, and continue to negotiate rescheduling and/or outright cancellation of remaining legacy arrears with external creditors. They are financing priority projects in infrastructure and social sectors mainly with concessional loans and grants, and continue to seek better terms for loans from the West African Bank for Development (BOAD). The advances in debt management have been supported by prudent fiscal policies that have resulted in a marked reduction of the fiscal deficit in 2017 and are expected to yield domestic primary surpluses into the medium term.

2. **Robust growth has helped improve baseline debt and debt service ratios relative to the December 2016 Update.** Economic growth has averaged close to 6 percent in 2015–16 and is projected to remain strong into the medium and long term. International cashew prices, which hit a record in the 2017 cashew campaign, are expected to remain 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 moderate debt and debt service ratios.

3. **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 in the baseline scenario of no policy adjustments. 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.

BASELINE ASSUMPTIONS

4. **Macroeconomic projections are slightly different from the December 2016 Update.** Compared to the previous projection for 2017, real GDP growth and external and fiscal balances have all improved. Beyond 2017, the external debt-GDP ratio increases in line with expected expansion in the externally-financed public investment program (including disbursement of a newly contracted concessional

[4] Guinea-Bissau successfully achieved debt relief and rescheduling of its legacy arrears with Exim-Bank of Taiwan, China. The agreement cancelled 90-percent of the arrears (of US$ 48.2 million, equivalent to 3.6 percent of GDP or 55 percent of total arrears outstanding after the Paris Club agreement in 2011); it requires an upfront payment by Guinea-Bissau of US$1.5 million in late 2017 and re-profiles the remaining amount (US$3.5 million) at an interest rate of 2.5 percent and a maturity of 5 years.

loan to enhance electricity supply).[5] Nevertheless, a projected decline in the domestic debt-GDP ratio more than offsets the external debt increase, leading to a projected decline in the total debt-GDP ratio.

5. The baseline macroeconomic assumptions indicate favorable debt trajectories (Box 1):

Box 1. Baseline Macroeconomic Assumptions

Real GDP growth: Real GDP growth, projected at 5.5 percent in 2017 (up from 5.0 percent previously), is projected to remain strong and average 5.0 percent per year over the medium and long term. The better growth performance in 2017 reflects high cashew prices and generally positive economic trends. The strong projected growth performance over the medium and long term is supported by anticipated investments in key infrastructure (including electricity, water, and roads), structural reforms (in public financial management, tax administration and debt management) with associated efficiency gains in public service delivery and reliability, and enhancements in the business environment generally.

Consumer price inflation: Reflecting increasing economic activity and rebound in global oil prices, consumer price inflation is expected to increase and average 2.6 percent per year in the medium-term, remaining below the WAEMU convergence criterion (3.0 percent).

Government balances: Reflecting a strong performance in the first half of 2017, the primary fiscal deficit (cash basis) is projected to narrow sharply to 1.4 percent of GDP in 2017 from 3.6 percent in 2016. The primary deficit is then expected to widen slightly to 1.9 percent of GDP in 2018, reflecting increased capital expenditure, and stay around that level through the medium term. Reforms to improve debt management are anticipated to reinforce the positive fiscal trends. In line with these expectations, external debt is projected to average 14.2 percent of GDP per year in 2017–22, reflecting the public investment program. Domestic debt is projected to decline by 3 percent of GDP to 36.7 percent in 2017 and to fall further and average around 19.5 percent of GDP in the long term, reflecting continued prudent domestic bank borrowing—consistent with the anchor of the ECF-supported program.

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

	2015	2016	2017	2018	Medium Term (first six years)	Long Term[1]
Real GDP growth (percent)						
Previous DSA	4.8	5.0	5.0	5.0	5.0	5.0
Current DSA	6.1	5.8	5.5	5.0	5.1	5.0
Primary fiscal balance (cash basis)						
Previous DSA	-2.9	-3.8	-1.4	-1.5	-1.6	0.0
Current DSA	-0.8	-3.6	-1.4	-1.9	-1.8	-2.1
Non-interest current account balance						
Previous DSA	-0.4	-2.6	-4.0	-4.5	-3.7	-2.1
Current DSA	2.7	1.6	0.1	-2.2	-1.5	-2.8
External debt						
Previous DSA	15.0	14.1	14.5	15.4	15.5	16.9
Current DSA	15.2	14.4	12.5	13.0	14.2	18.5
Domestic debt						
Previous DSA	33.5	34.9	32.7	29.1	28.3	11.1
Current DSA	37.6	39.7	36.7	35.3	32.3	19.5

Source: Bissau-Guinean authorities and staff estimates.
[1] Covers the period 2023-37 for the current DSA, 2022-36 for the previous DSA.

External current account balance. Reflecting the good cashew exports as well as higher imports, of construction materials especially, the external current account balance is expected to be broadly balanced in 2017. Thereafter, the non-interest balance is expected to decline to show deficits averaging around 1.5 percent of GDP in the medium term, reflecting increased FDI-related and other imports as incomes increase, and 2.8 percent in the long term.

Official financing flows: Official transfers are expected to average around 4 percent of GDP in the medium term (2017–22), and to decline to 3.6 percent of GDP in the long term. Concessional loans are assumed to be at the standard terms—i.e., on 0.75 percent interest rate with 40 (IDA) and 50 (AFDB) years maturity and ten-year grace period. Paris Club (Non-Paris Club) loans assume average interest rates of 1.9 (1.6) percent with 23 (23) years of maturity and 11 (6) years grace period.

[5] Earlier this year, Guinea-Bissau contracted a US$11 million (0.9 percent of GDP) loan from the Arab Bank for Economic Development in Africa (BADEA) to boost electricity supply. The loan carries an interest rate of 1 percent, a grace period of 10 years, and maturity of 30 years. It is thus concessional, with a grant element of 49 percent.

EXTERNAL AND PUBLIC DEBT SUSTAINABILITY

A. External Debt Sustainability Analysis

6. **Guinea-Bissau remains at moderate risk of debt distress.** The PV of debt-to-GDP and PV of debt-to-revenue ratios and the debt service-to-revenue ratio have seen significant reductions compared to the December 2016 update, reflecting positive movements in nominal GDP and tax revenue. All the baseline indicators are lower than their respective policy-dependent thresholds throughout the projection period (2017–37).

7. **The PV of debt-to-exports and debt service-to-exports ratios have, however, worsened relative to the earlier update.** The deterioration of these indicators reflects lower projected exports (an average of 29 percent of GDP over the projection period, compared to 35 percent under the previous DSA) due mainly to delays in the start of an earlier anticipated phosphate project. Nonetheless, except for the scenario with an extreme export shock, the ratios remain below their respective thresholds in the baseline and historical scenarios for the entire projection period. The results indicate some room for debt-financed projects, so long as the loans are on favorable/concessional terms and the selected projects meet appropriate return and criticality criteria, as per recognized assessment procedures.

8. **The external debt outlook remains vulnerable to adverse export and currency depreciation shocks.** The stress tests indicate that Guinea-Bissau is vulnerable to adverse shocks to exports, underscoring the need to diversify the economy and increase its resilience to such shocks. Compared to the December 2016 update, the PV of debt-to-exports ratio breaches its threshold for a longer period in the exports shock scenario; it falls slightly below the threshold only in the final seven years of the projection period. The realization of such an adverse export shock would strain debt sustainability. 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.

B. Public Debt Sustainability Analysis

9. **The public DSA is broadly unchanged from the December 2016 update.** The main difference is that historical debt levels have been revised upward, by an average of 4.3 percent in 2014–15, due mainly to more comprehensive data on domestic debt.[6] This has shifted the baseline PV of debt-to-GDP ratio upwards and it breaches the benchmark until 2021, with breaches in the other three scenarios as well. At end-2016, domestic debt (currency basis) amounted to 39.7 percent of GDP. This included project financing from BOAD (12.9 percent of GDP), debt to BCEAO (14.2 percent), local banks (2.9 percent), government debt guarantees (0.5 percent of GDP), T-bills held by other regional institutions (4.0 percent of GDP), and arears to local suppliers (estimated at 5.0 percent of GDP). Despite somewhat longer breaches of the PV of debt-to-GDP benchmark compared to the previous DSA, there are improvements in the baseline PV of debt-to-revenue and debt service-to-revenue ratios, reflecting projected improvements in fiscal revenues.

[6] The new data includes additional information on BOAD loans and government guarantees. The estimate of domestic arrears has also been updated.

10. Sensitivity tests indicate greater vulnerability to shocks. In a scenario with growth and the fiscal primary balance at historical averages, all PV of debt ratios exceed the December 2016 update (particularly in 2017-22), while the debt service ratios fall below the previous update over the whole projection period. This comparative performance does not change under the other two alternative scenarios—(i) primary balance unchanged from 2016, and (ii) permanently lower GDP growth.

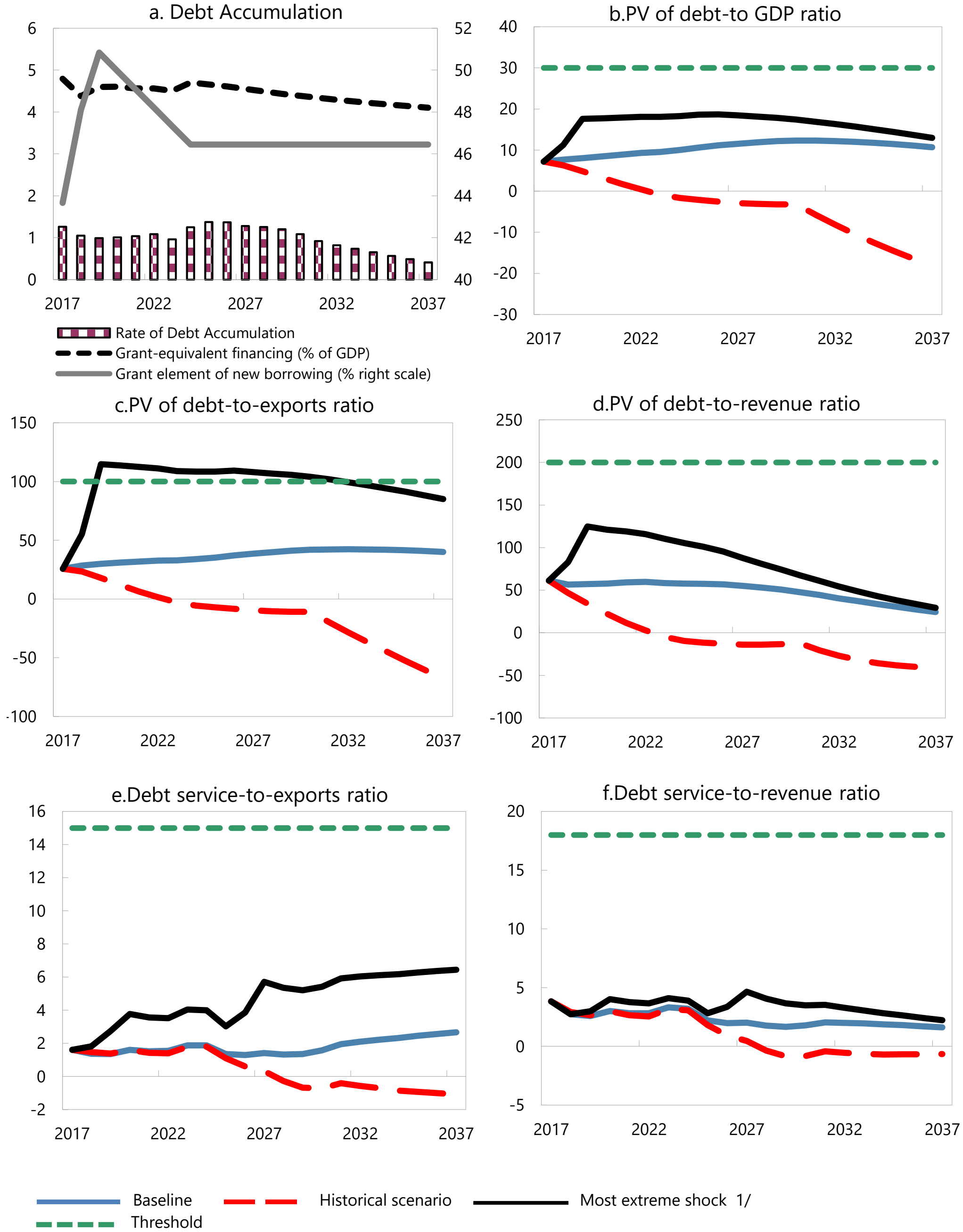
EXTERNAL AND PUBLIC DEBT SUSTAINABILITY

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 three 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) continued prudent borrowing policies, including borrowing on mostly concessional terms; and (iii) 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 that would in turn increase their chances of accessing concessional financing. They emphasized that the pace of public investment would be determined by available external concessional resources. 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.

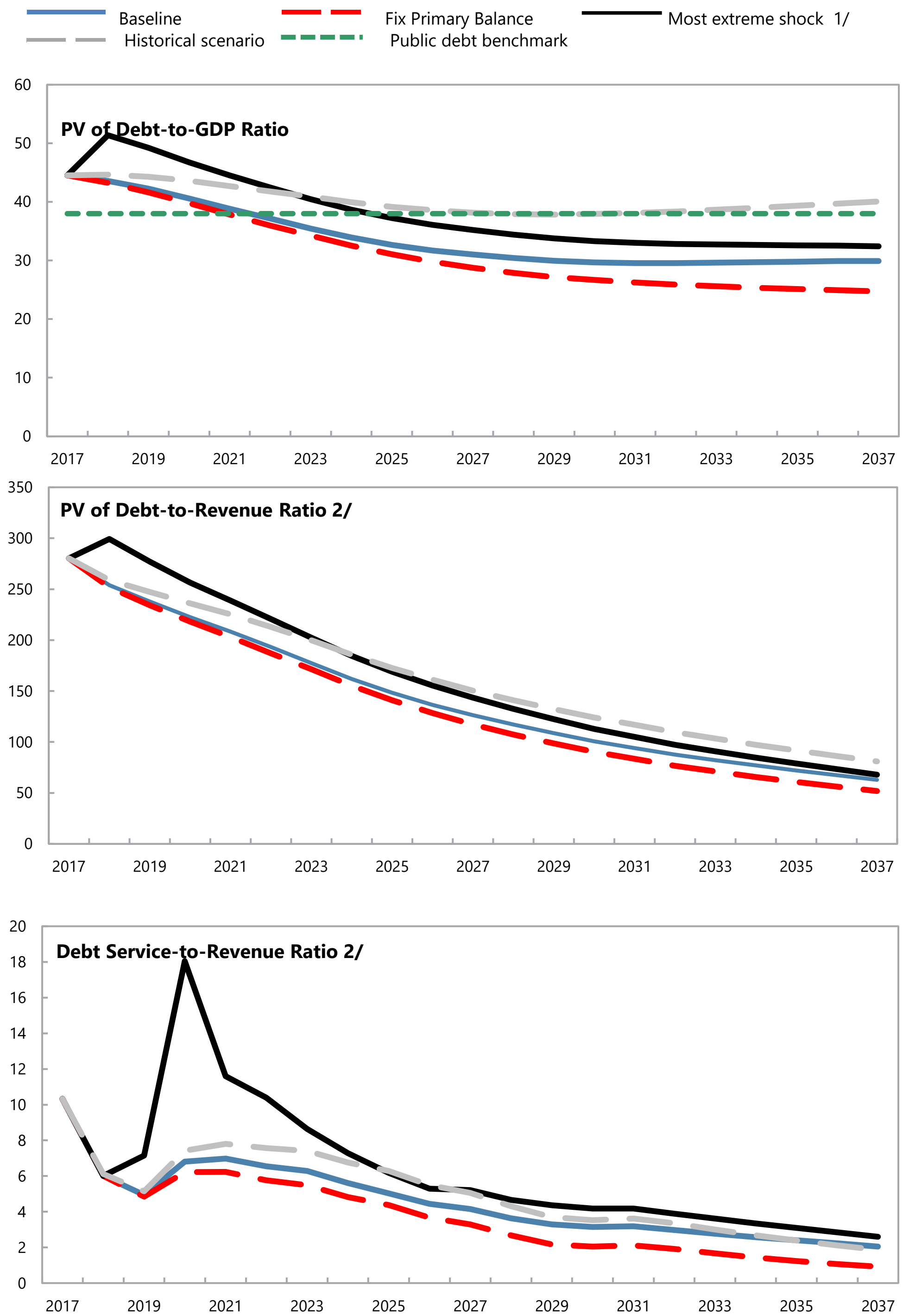
Figure 1. Guinea-Bissau: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2017–37 1/



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 2027. 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 Exports shock

Figure 2. Guinea-Bissau: Indicators of Public Debt under Alternative Scenarios, 2017–37 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 2027.
2/ Revenues are defined inclusive of grants.

Table 1. Guinea-Bissau: External Debt Sustainability Framework, Baseline Scenario, 2014–37 1/

(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average 6/	Standard Deviation 6/	Projections									
	2014	2015	2016			2017	2018	2019	2020	2021	2022	2017-2022 Average	2027	2037	2023-2037 Average
External debt (nominal) 1/	**15.0**	**15.2**	**14.4**			**12.5**	**13.0**	**13.7**	**14.5**	**15.3**	**16.0**		**19.2**	**16.6**	
of which: public and publicly guaranteed (PPG)	15.0	15.2	14.4			12.5	13.0	13.7	14.5	15.3	16.0		19.2	16.6	
Change in external debt	-1.7	0.3	-0.8			-1.9	0.4	0.7	0.8	0.8	0.7		0.5	-0.7	
Identified net debt-creating flows	-3.2	-3.8	-4.4			-2.1	-0.6	-0.1	0.1	-0.1	-0.5		-1.8	0.7	
Non-interest current account deficit	**-0.9**	**-2.7**	**-1.6**	**-1.7**	**0.9**	**-0.1**	**2.2**	**2.7**	**2.9**	**2.8**	**2.4**		**1.2**	**3.6**	2.8
Deficit in balance of goods and services	11.2	4.3	3.9			5.0	6.3	6.7	6.5	6.1	5.5		3.7	5.2	
Exports	20.2	28.3	26.3			27.9	27.0	26.9	27.4	28.0	28.6		30.0	26.7	
Imports	31.4	32.6	30.3			32.9	33.3	33.6	33.8	34.0	34.1		33.7	32.0	
Net current transfers (negative = inflow)	-8.2	-4.3	-3.1	-5.2	2.6	-3.2	-2.3	-2.2	-2.2	-2.1	-2.0		-1.7	-1.2	-1.5
of which: official	-4.5	-1.1	0.0			-0.4	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other current account flows (negative = net inflow)	-3.9	-2.7	-2.5			-1.8	-1.8	-1.7	-1.4	-1.2	-1.1		-0.9	-0.5	
Net FDI (negative = inflow)	**-2.5**	**-1.6**	**-1.4**	**-1.8**	**0.6**	**-1.4**	**-2.3**	**-2.3**	**-2.3**	**-2.3**	**-2.3**		**-2.3**	**-2.3**	-2.3
Endogenous debt dynamics 2/	**0.2**	**0.5**	**-1.4**			**-0.6**	**-0.5**	**-0.5**	**-0.5**	**-0.5**	**-0.6**		**-0.7**	**-0.6**	
Contribution from nominal interest rate	0.3	0.3	0.3			0.1	0.1	0.1	0.1	0.2	0.2		0.2	0.2	
Contribution from real GDP growth	-0.2	-0.9	-0.8			-0.7	-0.6	-0.6	-0.6	-0.7	-0.7		-0.9	-0.8	
Contribution from price and exchange rate changes	0.0	1.2	-0.9			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**1.4**	**4.0**	**3.6**			**0.2**	**1.0**	**0.8**	**0.7**	**0.8**	**1.2**		**2.3**	**-1.3**	
of which: exceptional financing	-0.5	0.2	-0.1			0.1	0.0	0.0	0.0	0.0	0.0		-0.1	-0.2	
PV of external debt 4/	...	...	7.8			7.2	7.7	8.1	8.5	8.9	9.3		11.5	10.7	
In percent of exports	...	...	29.4			25.8	28.4	29.9	30.9	31.8	32.6		38.5	40.0	
PV of PPG external debt	**...**	**...**	**7.8**			**7.2**	**7.7**	**8.1**	**8.5**	**8.9**	**9.3**		**11.5**	**10.7**	
In percent of exports	**...**	**...**	**29.4**			**25.8**	**28.4**	**29.9**	**30.9**	**31.8**	**32.6**		**38.5**	**40.0**	
In percent of government revenues	**...**	**...**	**63.5**			**61.2**	**56.7**	**57.0**	**57.9**	**59.1**	**59.7**		**55.1**	**24.3**	
Debt service-to-exports ratio (in percent)	**2.4**	**2.5**	**2.5**			**2.7**	**1.4**	**1.4**	**1.6**	**1.5**	**1.5**		**1.4**	**2.7**	
PPG debt service-to-exports ratio (in percent)	**2.4**	**2.5**	**2.5**			**1.6**	**1.4**	**1.4**	**1.6**	**1.5**	**1.5**		**1.4**	**2.7**	
PPG debt service-to-revenue ratio (in percent)	**3.8**	**5.2**	**5.4**			**3.8**	**2.7**	**2.6**	**3.0**	**2.8**	**2.8**		**2.0**	**1.6**	
Total gross financing need (Millions of U.S. dollars)	-30.3	-37.0	-27.9			-10.2	4.1	12.4	17.5	16.4	10.4		-19.4	119.2	
Non-interest current account deficit that stabilizes debt ratio	0.9	-3.0	-0.8			1.8	1.8	2.0	2.1	2.0	1.7		0.7	4.3	
Key macroeconomic assumptions															
Real GDP growth (in percent)	1.0	6.1	5.8	4.3	2.9	5.5	5.0	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)	-0.1	-7.5	6.3	-0.4	6.9	9.2	5.9	2.4	2.3	1.9	1.9	3.9	2.5	2.5	2.5
Effective interest rate (percent) 5/	2.0	1.7	2.2	2.0	0.2	0.7	0.7	1.0	1.1	1.1	1.1	0.9	1.1	1.1	1.1
Growth of exports of G&S (US dollar terms, in percent)	11.6	37.6	4.6	17.9	17.3	22.1	7.6	7.2	9.2	9.2	9.5	10.8	7.2	5.7	7.1
Growth of imports of G&S (US dollar terms, in percent)	22.6	2.0	4.5	9.7	11.3	25.1	12.5	8.5	8.2	7.6	7.3	11.6	6.8	5.0	7.2
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	43.7	48.1	50.8	50.0	49.1	48.2	48.3	46.4	46.4	46.5
Government revenues (excluding grants, in percent of GDP)	12.6	13.8	12.2			11.7	13.5	14.1	14.6	15.0	15.6		20.9	44.1	27.5
Aid flows (in Millions of US dollars) 7/	100.3	67.9	46.6			67.5	73.1	87.1	93.2	97.2	102.6		143.3	258.6	
of which: Grants	100.3	67.9	46.6			55.5	54.3	58.4	62.0	66.4	71.0		102.5	213.6	
of which: Concessional loans	0.0	0.0	0.0			12.0	18.8	28.8	31.1	30.8	31.6		40.7	45.0	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			4.8	4.4	4.6	4.6	4.6	4.6		4.5	4.1	4.4
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			84.9	84.5	83.2	82.1	82.0	81.5		80.6	87.6	83.1
Memorandum items:															
Nominal GDP (Millions of US dollars)	1055.2	1036.1	1164.9			1342.4	1493.4	1605.0	1723.5	1843.8	1972.7		2847.5	5932.7	
Nominal dollar GDP growth	0.9	-1.8	12.4			15.2	11.2	7.5	7.4	7.0	7.0	9.2	7.6	7.6	7.6
PV of PPG external debt (in Millions of US dollars)			86.0			100.7	114.7	129.5	145.7	163.6	183.6		327.9	633.7	
(PVt-PVt-1)/GDPt-1 (in percent)						1.3	1.0	1.0	1.0	1.0	1.1	1.1	1.3	0.4	1.0
Gross workers' remittances (Millions of US dollars)	38.9	33.7	30.9			31.8	34.4	35.8	37.2	38.5	39.7		47.8	69.1	
PV of PPG external debt (in percent of GDP + remittances)	...	...	7.6			7.0	7.5	7.9	8.3	8.7	9.1		11.3	10.6	
PV of PPG external debt (in percent of exports + remittances)	...	...	26.7			23.7	26.2	27.6	28.7	29.6	30.5		36.5	38.4	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	2.3			1.5	1.3	1.3	1.5	1.4	1.4		1.3	2.6	

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, 2017–37

(In percent)

	Projections							
	2017	2018	2019	2020	2021	2022	**2027**	2037
PV of debt-to GDP ratio								
Baseline	7	8	8	8	9	9	**12**	11
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	7	6	5	3	2	0	**-3**	-18
A2. New public sector loans on less favorable terms in 2017-2037 2	7	8	9	10	11	11	**16**	16
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	7	8	9	9	9	10	**12**	11
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	7	11	18	18	18	18	**18**	13
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	7	9	11	12	12	13	**16**	15
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	7	9	10	10	11	11	**13**	11
B5. Combination of B1-B4 using one-half standard deviation shocks	7	10	15	15	16	16	**18**	15
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	7	11	11	12	12	13	**16**	15
PV of debt-to-exports ratio								
Baseline	26	28	30	31	32	33	**39**	40
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	26	23	18	12	6	2	**-10**	-68
A2. New public sector loans on less favorable terms in 2017-2037 2	26	30	33	36	38	40	**53**	61
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	26	28	30	31	32	33	**38**	40
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	26	55	115	114	112	111	**108**	85
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	26	28	30	31	32	33	**38**	40
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	26	32	37	37	38	38	**43**	42
B5. Combination of B1-B4 using one-half standard deviation shocks	26	36	50	51	51	51	**55**	50
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	26	28	30	31	32	33	**38**	40
PV of debt-to-revenue ratio								
Baseline	61	57	57	58	59	60	**55**	24
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	61	47	34	22	12	3	**-14**	-41
A2. New public sector loans on less favorable terms in 2017-2037 2	61	59	63	66	70	73	**75**	37
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	61	59	61	62	63	64	**59**	26
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	61	83	125	121	119	116	**88**	29
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	61	68	79	80	82	82	**76**	34
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	61	64	70	70	70	70	**61**	25
B5. Combination of B1-B4 using one-half standard deviation shocks	61	76	105	104	104	103	**86**	33
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	61	79	80	81	82	83	**77**	34

Table 2. Guinea-Bissau: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2017–37 (concluded)

(In percent)

Debt service-to-exports ratio								
Baseline	2	1	1	2	2	2	**1**	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	2	1	1	2	1	1	**0**	-1
A2. New public sector loans on less favorable terms in 2017-2037 2	2	1	1	2	2	2	**2**	4
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	2	1	1	2	2	2	**1**	3
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	2	2	3	4	4	4	**6**	6
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	2	1	1	2	2	2	**1**	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	2	1	1	2	2	2	**2**	3
B5. Combination of B1-B4 using one-half standard deviation shocks	2	1	2	2	2	2	**2**	4
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	2	1	1	2	2	2	**1**	3
Debt service-to-revenue ratio								
Baseline	4	3	3	3	3	3	**2**	2
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	4	3	3	3	3	3	**0**	-1
A2. New public sector loans on less favorable terms in 2017-2037 2	4	3	3	3	3	4	**3**	3
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	4	3	3	3	3	3	**2**	2
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	4	3	3	4	4	4	**5**	2
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	4	3	4	4	4	4	**3**	2
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	4	3	3	3	3	3	**3**	2
B5. Combination of B1-B4 using one-half standard deviation shocks	4	3	3	4	4	4	**4**	2
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	4	4	4	4	4	4	**3**	2
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 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 3. Guinea-Bissau: Public Sector Sustainability Framework, Baseline Scenario, 2014–37

(In percent of GDP unless otherwise indicated)

	Actual			Average 5/	Standard Deviation 5/	Estimate	Projections								
	2014	2015	2016			2017	2018	2019	2020	2021	2022	2017-22 Average	2027	2037	2023-37 Average
Public sector debt 1/	55.3	53.4	54.6			49.9	48.9	47.9	46.7	45.2	43.8		38.7	35.8	
of which: foreign-currency denominated	15.0	15.2	14.4			12.5	13.0	13.7	14.5	15.3	16.0		19.2	16.6	
Net public debt	51.9	51.8	53.4			48.8	47.9	47.0	45.8	44.4	43.1		38.2	35.6	
Change in public sector debt	6.4	-1.9	1.3			-4.7	-1.0	-1.0	-1.3	-1.4	-1.4		-0.6	-0.2	
Identified debt-creating flows	4.2	-2.5	-1.2			-5.6	-0.9	-1.0	-0.9	-0.9	-0.9		-0.3	-0.2	
Primary deficit	2.6	3.0	3.6	3.0	0.5	1.4	1.9	1.8	1.8	1.7	1.8	1.7	2.1	2.2	2.0
Revenue and grants	22.1	20.4	16.2			15.9	17.2	17.8	18.2	18.6	19.2		24.5	47.7	
of which: grants	9.5	6.6	4.0			4.1	3.6	3.6	3.6	3.6	3.6		3.6	3.6	
Primary (noninterest) expenditure	24.7	23.4	19.8			17.3	19.0	19.6	20.0	20.4	21.0		26.6	49.9	
Automatic debt dynamics	2.0	-5.8	-4.8			-7.3	-2.7	-2.8	-2.7	-2.6	-2.7		-2.4	-2.3	
Contribution from interest rate/growth differential	-0.2	-6.3	-4.6			-5.3	-2.8	-2.8	-2.7	-2.7	-2.7		-2.3	-2.2	
of which: contribution from average real interest rate	0.3	-3.1	-1.7			-2.5	-0.4	-0.5	-0.4	-0.4	-0.5		-0.5	-0.5	
of which: contribution from real GDP growth	-0.5	-3.2	-2.9			-2.8	-2.4	-2.3	-2.3	-2.2	-2.2		-1.9	-1.7	
Contribution from real exchange rate depreciation	2.1	0.5	-0.2			-1.9	0.0	0.0	0.0	0.0	0.0		...	...	
Other identified debt-creating flows	-0.3	0.4	0.0			0.2	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	0.2	0.4	0.0			0.2	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Debt relief (HIPC and other)	-0.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	2.1	0.5	2.5			0.9	-0.1	0.0	-0.4	-0.5	-0.5		-0.3	-0.1	
Other Sustainability Indicators															
PV of public sector debt	...	...	47.9			44.5	43.6	42.3	40.6	38.8	37.1		31.0	29.9	
of which: foreign-currency denominated	...	...	7.8			7.2	7.7	8.1	8.5	8.9	9.3		11.5	10.7	
of which: external	...	...	7.8			7.2	7.7	8.1	8.5	8.9	9.3		11.5	10.7	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	11.7	11.4	10.4			7.5	6.6	6.2	6.3	6.1	5.9		5.1	4.0	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	295.5			280.4	253.9	237.9	222.6	208.3	193.1		126.4	62.7	
PV of public sector debt-to-revenue ratio (in percent)	...	...	392.3			379.0	322.1	299.1	277.4	258.1	237.6		148.1	67.8	
of which: external 3/	...	...	63.5			61.2	56.7	57.0	57.9	59.1	59.7		55.1	24.3	
Debt service-to-revenue and grants ratio (in percent) 4/	3.2	7.6	9.0			10.3	6.0	4.9	6.8	7.0	6.5		4.1	2.0	
Debt service-to-revenue ratio (in percent) 4/	5.7	11.2	11.9			14.0	7.6	6.2	8.5	8.6	8.1		4.9	2.2	
Primary deficit that stabilizes the debt-to-GDP ratio	-3.8	4.9	2.3			6.2	2.8	2.8	3.0	3.2	3.2		2.7	2.4	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	1.0	6.1	5.8	3.7	2.7	5.5	5.0	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)	2.0	1.7	2.2	1.3	0.9	0.7	0.7	1.0	1.1	1.1	1.1	0.9	1.1	1.1	1.1
Average real interest rate on domestic debt (in percent)	0.7	-8.4	-5.0	-2.9	4.5	...	-0.7	-1.0	-0.8	-1.1	-1.4	-1.0	-1.6	-2.1	-1.7
Real exchange rate depreciation (in percent, + indicates depreciation)	12.9	3.6	-1.6	-0.3	7.5	-14.5	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	-0.1	10.8	6.6	4.7	6.0	7.2	1.6	1.9	2.1	2.2	2.5	2.9	2.5	2.5	2.5
Growth of real primary spending (deflated by GDP deflator, in percent)	122.0	0.5	-10.3	11.2	39.1	-7.9	15.5	8.2	7.0	7.1	8.2	6.4	11.2	12.4	11.2
Grant element of new external borrowing (in percent)	...	...	...	...	...	43.7	48.1	50.8	50.0	49.1	48.2	48.3	46.4	46.4	...

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, 2017–37

	Projections							
	2017	2018	2019	2020	2021	2022	2027	2037
PV of Debt-to-GDP Ratio								
Baseline	45	44	42	41	39	37	31	30
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	45	45	44	44	43	42	38	40
A2. Primary balance is unchanged from 2017	45	43	42	40	38	36	29	25
A3. Permanently lower GDP growth 1/	45	44	43	42	41	40	38	60
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	45	47	49	48	47	46	45	59
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	45	45	45	43	41	39	32	31
B3. Combination of B1-B2 using one half standard deviation shocks	45	46	47	46	45	43	40	50
B4. One-time 30 percent real depreciation in 2018	45	46	45	42	40	38	31	29
B5. 10 percent of GDP increase in other debt-creating flows in 2018	45	51	49	47	45	42	35	32
PV of Debt-to-Revenue Ratio 2/								
Baseline	280	254	238	223	208	193	126	63
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	280	259	247	236	225	213	150	81
A2. Primary balance is unchanged from 2017	280	252	234	218	203	187	117	52
A3. Permanently lower GDP growth 1/	280	256	242	229	217	204	151	124
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	280	268	268	258	247	235	179	124
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	280	262	252	235	219	203	132	65
B3. Combination of B1-B2 using one half standard deviation shocks	280	265	259	247	235	222	162	104
B4. One-time 30 percent real depreciation in 2018	280	270	251	233	216	199	124	61
B5. 10 percent of GDP increase in other debt-creating flows in 2018	280	299	277	257	239	221	143	68
Debt Service-to-Revenue Ratio 2/								
Baseline	10	6	5	7	7	7	4	2
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	10	6	5	7	8	8	5	2
A2. Primary balance is unchanged from 2017	10	6	5	6	6	6	3	1
A3. Permanently lower GDP growth 1/	10	6	5	7	7	7	6	8
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	10	6	6	9	10	10	9	8
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	10	6	5	9	10	8	4	2
B3. Combination of B1-B2 using one half standard deviation shocks	10	6	5	8	9	9	7	6
B4. One-time 30 percent real depreciation in 2018	10	6	6	8	8	8	5	3
B5. 10 percent of GDP increase in other debt-creating flows in 2018	10	6	7	18	12	10	5	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.