



GUINEA-BISSAU

REQUEST FOR DISBURSEMENT UNDER THE RAPID CREDIT FACILITY—DEBT SUSTAINABILITY ANALYSIS UPDATE

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Approved By
**Roger Nord and Peter
Allum (IMF)**

Prepared by the Staff of the International Monetary Fund (IMF).^{1,2}

Guinea-Bissau remains at moderate risk of debt distress. The country's external and public debt indicators improved significantly following HIPC and MDRI assistance and remain below the indicative thresholds throughout the projection period. However, there have been improvements compared to last year's assessment³, as only one debt-burden indicator (under the most extreme scenario) breaches the associated benchmark. There is a large and protracted breach of the present value of debt to exports threshold in an exports shock scenario. The improvements are due to revisions to the debt stock and GDP, the reclassification of BOAD debt from external to internal debt, and by the exclusion of debts in technical arrears. Despite the better outlook, domestic public debt has increased markedly in recent years, reinforcing the need to pursue prudent fiscal and debt management policies, implement structural reforms, such as export diversification and higher tax collection, and continue to strongly rely on concessional borrowing.

¹ The DSA was prepared by Fund staff, in consultation with the Debt Management Unit of the Bissau-Guinean Ministry of Finance, and benefitted from comments from the World Bank. The fiscal year for Guinea-Bissau is January 1- December 31.

² Debt sustainability thresholds are determined by the three-year (2010–12) average of the Country Policy and Institutional Assessment (CPIA) rating (2.7), which classifies Guinea-Bissau as having low-quality policies and institutional frameworks.

³ The previous DSA was prepared in June 2013. IMF Country Report No. 13/197.

BACKGROUND

1. Overall, Guinea-Bissau's debt outlook has improved considerably since the country benefited from a substantial debt relief, but careful debt management remains crucial.

The implementation of the Enhanced Heavily Indebted Poor Countries (HIPC) Initiative in December 2010 and the Multilateral Debt Relief Initiative (MDRI) in May 2011, has significantly reduced the ratio of public and publicly guaranteed (PPG) external debt to GDP from the pre-debt relief peak of 113 percent of GDP at end-2009 to 28 percent of GDP⁴ at end-2013. However, the debt burden has slowly been increasing in recent years (Text Table 1). Most of the debt owed to multilaterals and official bilateral creditors was canceled, while about half of the remaining debt owed to non-Paris Club creditors is subject to rescheduling.

Text Table 1. Guinea-Bissau: Nominal external debt stock, 2011-13				
	2011	2012	2013	2013
	<i>Percent of GDP</i>			<i>Percent of total debt</i>
Total	24.4	28.2	28.0	100.0
Multilateral creditors	12.1	14.0	13.9	49.5
<i>of which</i>				
IMF	1.0	1.2	1.2	4.1
IDA	5.2	5.8	5.7	20.5
AfDB	1.6	2.0	1.9	6.8
Others	4.4	5.1	5.1	18.1
Bilateral creditors	12.3	14.1	14.1	50.4
Paris Club	0.0	0.0	0.0	0.0
Non-Paris Club	12.3	14.1	14.1	50.4
Commercial	0.0	0.0	0.0	0.1
Memorandum item:				
Debt in technical arrears ¹	8.0	9.2	9.2	32.9

¹ Based on preliminary findings. Includes debt of \$48.2 million to Taiwan, \$32.8 million to Angola, \$3.7 million to Libya, \$3 million to Pakistan, \$0.3 million to Abu Dhabi, and \$0.3 million to a commercial bank.
Source: Guinea-Bissau authorities and staff estimates

2. Public domestic debt has increased substantially in recent years due, in part, to limited access to official external financing, as well as to a reclassification of BOAD loans that are now

considered as internal debt as they are denominated in domestic currency. The ratio of domestic debt to GDP has remained stable around 35-36 percent from end-2009 to end-2013. However, it has gone up recently as the authorities started to rely more heavily on borrowing from the West African Development Bank (BOAD), a regional development bank, to finance public investment projects in road construction and

⁴ Excludes \$88.5 million of debt in technical arrears to Taiwan, Angola, Libya, Pakistan, Abu Dhabi, and a closed commercial bank. Technical arrears stem from payments falling due in situations when the creditor has agreed to a rescheduling of the debt, but it has not yet taken place. Staff has requested additional information about the status of debt renegotiations to firm up the classification of these loans.

rehabilitation, rice production and food security support. In addition, government placed CFAF10 billion and CFAF15 billion in treasury bonds in 2013 and 2014. BOAD debt, denominated in domestic currency and thus considered to be domestic debt,⁵ has increased from 1 percent of GDP in 2009 to about 6 percent of GDP in 2013. The ratio of public domestic debt to GDP is expected to lie around 37 percent at end-2014, and to increase to 47 percent in 2017 before beginning to decrease.

UNDERLYING ASSUMPTIONS

3. The macroeconomic outlook has been revised to reflect a decrease in macroeconomic and political uncertainty as Guinea-Bissau returns to democracy following a coup in 2012. The recent successful elections, along with prospects for an RCF, are already leading to a resumption of financial support. Moreover, political stability will also increase macroeconomic predictability. Therefore, the baseline scenario assumes that economic recovery will be driven by a restoration of traditional development partners' support and an increase in investment levels. In particular, compared to the previous DSA assumptions:

	2012	2013	2014	Long Term ¹
<i>Real GDP growth (percent)</i>				
Previous DSA	-1.5	3.5	2.4	4.0
Current DSA	-2.2	0.3	2.5	4.0
<i>Primary fiscal balance (percent of GDP)</i>				
Previous DSA	-2.8	0.8	-0.7	-0.2
Current DSA	2.1	1.7	-0.4	0.4
<i>Non-interest current account deficit (percent of GDP)</i>				
Previous DSA	6.5	5.5	4.5	2.4
Current DSA	4.6	4.0	0.3	4.9
<i>Growth of exports (percent)</i>				
Previous DSA	-44.4	23.7	14.7	6.3
Current DSA	-41.4	5.4	13.2	6.4
Sources: Guinea-Bissau authorities; IMF Staff estimates				
1 Long-term value of the indicator is defined as an average over the last 15 years of the projections				

- The medium-term growth scenario projects a strong recovery relative to the two previous very weak years (-2.2 and 0.3 percent growth), with long-term growth remaining at 4 percent per year, but with stronger underlying fundamentals in terms of international support. This assumes the implementation of sound macroeconomic policies, structural reforms and continued efforts to increase public investment.
- The primary fiscal deficit is projected to improve, converging towards 0.4 percent of GDP in the long term, reflecting the authorities' efforts to increase revenue mobilization in the context of limited access to borrowing.

⁵ This treatment represents an important change relative to more recent DSAs for Guinea-Bissau and it is in line with the treatment applied by other WAEMU countries and in the Technical Memorandum of Understanding of the more recent arrangement under an Extended Credit Facility (ECF).

- The non-interest external current account deficit is expected to improve in the long term reflecting an upward revision in the fiscal balance and a slightly lower growth in imports.

4. Risks to the baseline scenario are linked to the country's high dependence on cashew exports and foreign (concessional) support as well as new episodes of political instability.

Much will depend on the availability of concessional external financing as well as on the authorities' debt management capacity. Externally, a weakening external environment could result in lower-than-expected exports and remittances.⁶ Therefore, those factors translate into important downside risks to growth, FDI and the current account dynamics.

Box 1. Macroeconomic Assumptions

In the medium term (2014-19) projections are consistent with the macroeconomic framework under a request for an RCF arrangement. **Long-term (2020-2034)** projections assume enduring political stability and the resulting macroeconomic stability gains, for example, higher investment levels boosted by lower macroeconomic uncertainty and higher revenue collection through stronger institutions.

Real GDP growth is projected to reach 2.5 percent in 2014 following two years of poor economic growth (-2.2 percent in 2012 and 0.3 percent in 2013). Over the medium term, the rate of economic growth is expected to pick up to 3.7 percent, reflecting higher macroeconomic stability and increased levels of capital flows and investment due to lower political risk. Over the long run, growth is expected to stabilize around 4 percent, as a result of better economic policies, increased investment levels, mainly in infrastructure, structural reforms and the associated efficiency gains.

Inflation (measured by the CPI) is projected to reach 2.1 percent by the end of 2014, following higher disposable income from higher cashew prices as well as stronger demand, and to converge to 2.5 percent in the medium run, hovering around that level over the long term.

The primary fiscal deficit is assumed to slightly increase from 1.7 percent of GDP in 2013 to 1.8 percent in the medium term. Over the long run, the primary fiscal balance is projected to remain at about 0.4 percent of GDP. Over the near-term, government's domestic debt is projected to slightly increase from 35 percent of GDP in 2013 to 41 percent of GDP in 2019. In the long term, domestic debt is expected to decrease to about 7 percent reflecting the authorities' commitment to a prudent borrowing strategy and a regular repayment of outstanding debt.

The non-interest external current account deficit is projected to slightly increase from 4.0 percent of GDP in 2013 to 5.7 percent of GDP in 2019. In the long term, the current account deficit would stabilize at about 5 percent of GDP, reflecting improved exports and fiscal performance.

Net foreign direct investment is projected to pick up in the medium and long terms owing to the stabilization of the political situation, a more favorable business climate, and improved infrastructure.

Net aid flows (official grants and concessional loans) are expected to hover around 7 percent of GDP in the medium run, and decrease slightly but consistently until the end of the projection period. Concessional loans are assumed to be at standard terms, i.e. on 0.75 percent interest rate with 40 (IDA) and 50 (AFDB) years maturity and ten-year grace period. The average grant element of new external disbursements is assumed to remain around 50 percent throughout the projection period.

⁶ The inclusion of remittances in the analysis, accounting on average for 2.8 percent of GDP in the last five years, results in minor changes of debt burden indicators.

EXTERNAL AND PUBLIC DEBT SUSTAINABILITY

A. External Debt Sustainability Analysis

5. All debt burden indicators are expected to remain below their thresholds⁷ in the baseline scenario, but the most extreme shock⁸ scenario leads to a significant breach of one of them (Figure 1, Tables 1 and 2). In the baseline scenario, no debt burden indicator breaches its respective threshold for the whole projection period. However, under the most extreme shock scenario the PV of debt-to-export ratio breaches the benchmark for an extended period of time. Stress tests indicate that the economy remains vulnerable to a fall in exports. In this case the PV of debt-to-export ratio would increase from about 53 percent in 2014 to 165 percent of GDP in 2019 and then remain above the threshold during the projection period. On this basis, Guinea-Bissau remains classified as a moderate risk country. Nonetheless, under the baseline scenario exports are expected to increase somewhat over the long-term due to improved road infrastructure and some product diversification. If those gains were to materialize earlier or diversification was to be larger, future dynamics would be more favorable. Finally, it is worth noticing that, under the most extreme shock scenario, all other indicators remain well below their associated thresholds during the entire projection period.

6. The current assessment presents a better debt outlook than the previous DSA. In the previous DSA one debt burden indicator breached the threshold under the baseline scenario, compared to none in the current DSA. Moreover, in the previous DSA three debt burden indicators breached their associated thresholds under the most extreme shock scenario, compared to just one indicator this time. The improvements are due to revisions to the debt stock and GDP, the exclusion of debts in technical arrears as well as the reclassification of BOAD debt as domestic debt.

B. Public Debt Sustainability Analysis

7. Total (external and domestic) public debt indicators are projected to decline gradually over time (Figure 2, Tables 3 and 4). In the baseline scenario, the PV of debt-to-GDP ratio is expected to decrease markedly from 47 percent in 2014 to 19 percent in 2034, after increasing somewhat in the next three years due to large infra-structure projects that are in the pipeline. The PV of debt-to-revenue ratio is projected to sharply decline from 242 percent to 114 percent, and the debt service-to-revenue ratio is expected to stabilize around the 6 percent value expected for 2014. However, The PV of debt-to-GDP ratio should lie above its corresponding threshold for half of the projection period, notwithstanding its marked improvement over last year's DSA.⁹

⁷ Debt sustainability thresholds are determined by the three-year (2010–12) average of the Country Policy and Institutional Assessment (CPIA) rating (2.7), which classifies Guinea-Bissau as having low-quality policies and institutional frameworks.

⁸ The most extreme shock is calibrated as an export shock in 2015–2016 equal to the historical average (2004–2013) of export growth minus one standard deviation (in the same period), or a one-time, 30-percent nominal currency depreciation.

⁹ However, note that no threshold on total public debt existed in the previous DSA. Applying this new threshold to the previous DSA would have produced a similar result.

8. Risks to the baseline scenario are linked to the country's high dependence on cashew exports, the availability of concessional external financing and new episodes of political instability.

The initial increase in the PV of debt is driven by the large expected volume of BOAD disbursements in the medium-term. However, they are associated to key infrastructure investment, which should boost GDP afterwards and help to decrease vulnerabilities. On the other hand, new episodes of political instability could lead to lower volume of concessional financing and grants, which would require additional issuance of Treasury bills, on top of recent sizable placements totaling 25 billion in 2013 and 2014. In an extreme case even the rolling over this debt cannot be taken for granted. A weaker external environment in the medium term could result in lower-than-expected exports and remittances.¹⁰ Those factors translate into downside risks to growth, FDI and the current account dynamics. Finally, even though the debt to the BCEAO has been successfully rescheduled, there is uncertainty about the amount of additional old internal arrears that will be certified, since their volume is under dispute.¹¹

CONCLUSION

9. In the staff's view, Guinea-Bissau faces a moderate risk of debt distress; however debt management should be enhanced and carried out with caution. Under the assumptions of medium-term gradual economic recovery, sound policies, and continued structural reforms the risk of debt distress is assessed as moderate. However, this assessment has greatly benefited from the HIPC and MDRI initiatives, and efforts should be made to make those gains permanent, mainly in a situation in which recent years' difficulties to accessing external borrowing should improve substantially in the following years (under the baseline). Therefore, authorities should consider carefully borrowing opportunities and accept only concessional financing.

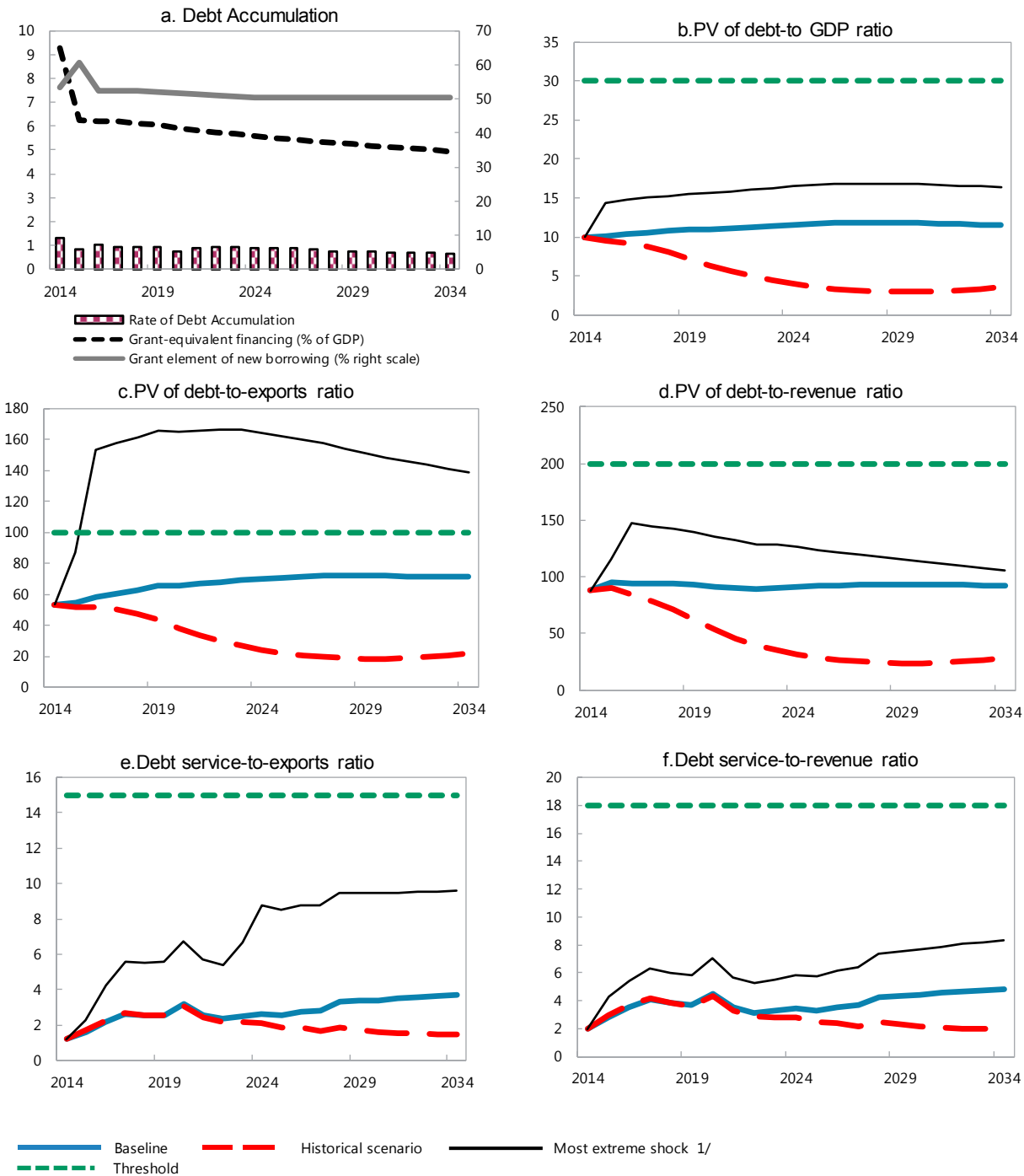
10. Despite improvements in the debt outlook, domestic debt has risen substantially in recent years. In part as a result of difficulties in accessing external financing, authorities have resorted to domestic debt (including BOAD) in recent years. As a consequence, domestic debt relative to GDP has risen from 26 percent in 2011 to 35 percent in 2013. Therefore, better debt management and sound policies are crucial to sustainable growth. Indeed, the inclusion of domestic public debt in the debt sustainability analysis confirms that GNB's debt position is vulnerable, as the PV of debt-to-GDP ratio surpasses its threshold for the next ten years.

11. The authorities broadly agree with the staff conclusions and policy recommendations. The authorities concur that debt sustainability depends critically on the ability to access concessional financing, improvements in potential economic growth, and sound macroeconomic and prudent debt management policies

¹⁰ The inclusion of remittances in the analysis, accounting on average for 2.8 percent of GDP in the last five years, results in minor changes of debt burden indicators.

¹¹ The DSA includes the already audited and recognized stock of arrears related to the 1974–1999 period, as well as CFA14 billion related to the 2000–2007 period. Arrears from the 2008–2012 period, which have neither been audited nor recognized, are not included.

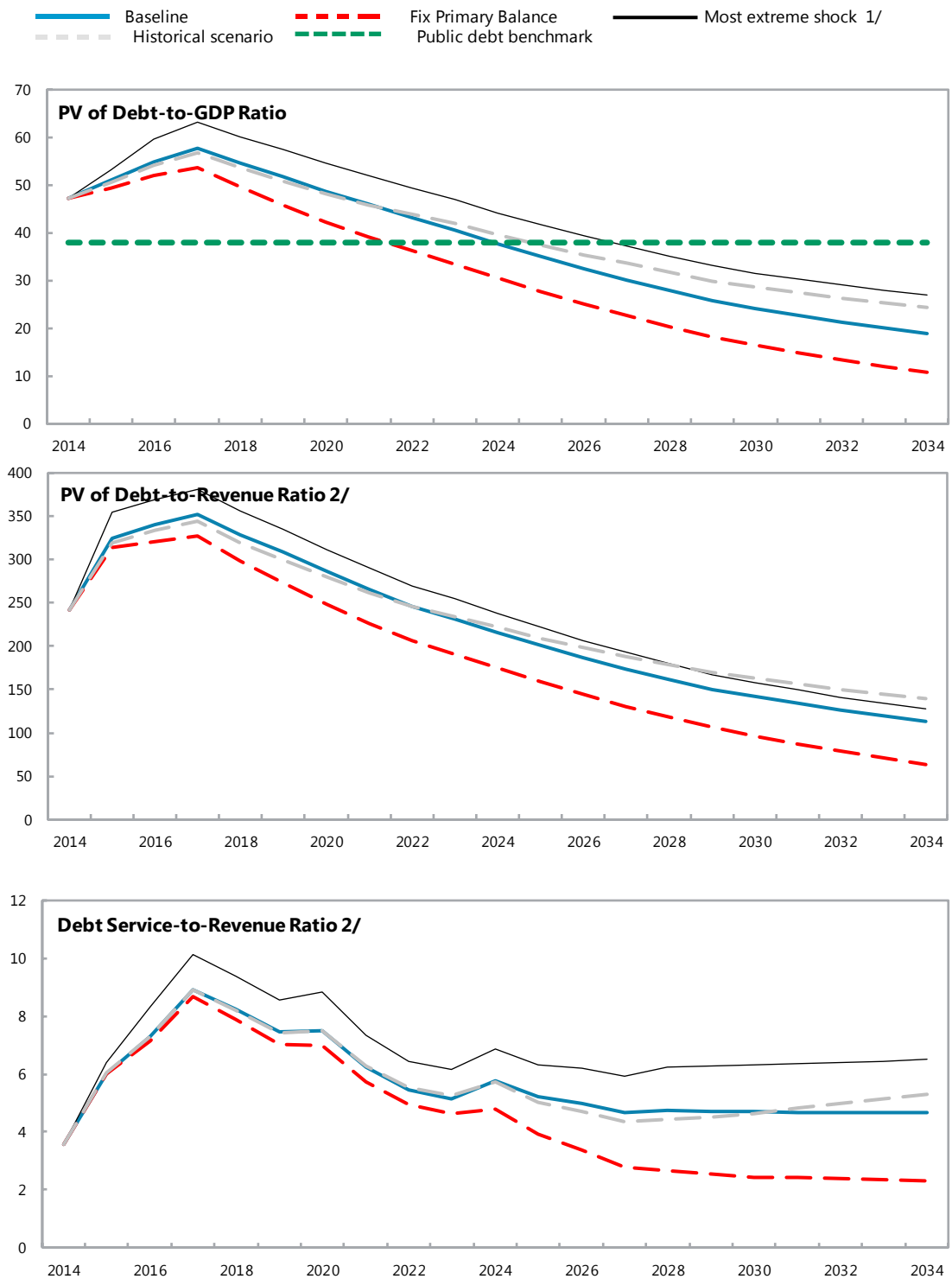
Figure 1. Guinea-Bissau: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2014–2034 1/



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 2024. In figure b, it corresponds to a One-time depreciation 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, 2014–2034 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 2024.

2/ Revenues are defined inclusive of grants.

Table 1 .Guinea-Bissau: External Debt Sustainability Framework, Baseline Scenario, 2011-2034 1/

(In percent of GDP, unless otherwise indicated)

	Actual			Historical ^{6/} Standard ^{6/}		Projections									
	2011	2012	2013	Average	Deviation	2014	2015	2016	2017	2018	2019	2014-2019 Average	2024	2034	2020-2034 Average
External debt (nominal) 1/	17.3	18.6	18.2			19.6	19.7	20.0	20.2	20.3	20.4		20.5	19.5	
<i>of which: public and publicly guaranteed (PPG)</i>	17.3	18.6	18.2			19.6	19.7	20.0	20.2	20.3	20.4		20.5	19.5	
Change in external debt	4.4	1.2	-0.4			1.4	0.1	0.3	0.2	0.1	0.1		0.0	-0.1	
Identified net debt-creating flows	-5.0	6.6	2.6			-1.9	1.1	1.4	1.7	2.1	2.5		1.8	0.7	
Non-interest current account deficit	0.2	4.6	4.0	3.0	3.9	0.3	3.8	4.4	4.9	5.4	5.7		5.2	4.4	4.9
Deficit in balance of goods and services	5.5	9.5	8.2			10.5	10.5	10.8	11.1	11.4	11.5		10.1	8.0	
Exports	25.3	17.1	17.9			18.7	18.4	17.9	17.5	17.1	16.7		16.6	16.2	
Imports	30.8	26.5	26.1			29.2	28.9	28.7	28.6	28.5	28.2		26.7	24.2	
Net current transfers (negative = inflow)	-5.4	-4.9	-4.2	-8.6	3.0	-10.2	-6.7	-6.5	-6.2	-6.0	-5.8		-4.9	-3.6	-4.5
<i>of which: official</i>	-3.0	-1.9	-0.8			-6.3	-3.0	-2.9	-2.8	-2.8	-2.7		-2.5	-2.2	
Other current account flows (negative = net inflow)	0.0	0.1	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Net FDI (negative = inflow)	-2.2	-0.7	-1.5	-1.9	0.9	-1.9	-2.0	-2.4	-2.6	-2.7	-2.6		-2.7	-2.9	-2.7
Endogenous debt dynamics 2/	-2.9	2.6	0.0			-0.3	-0.6	-0.6	-0.6	-0.6	-0.6		-0.7	-0.7	
Contribution from nominal interest rate	0.1	0.0	0.1			0.1	0.1	0.1	0.1	0.1	0.1		0.0	0.0	
Contribution from real GDP growth	-0.9	0.4	-0.1			-0.4	-0.7	-0.7	-0.7	-0.7	-0.7		-0.8	-0.7	
Contribution from price and exchange rate changes	-2.1	2.2	0.0			...	...	...	...	...	...		...	...
Residual (3-4) 3/	9.3	-5.3	-3.0			3.3	-1.1	-1.1	-1.5	-2.0	-2.4		-1.8	-0.9	
<i>of which: exceptional financing</i>	-0.1	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	9.0			10.0	10.1	10.4	10.6	10.8	10.9		11.6	11.5	
In percent of exports	...	...	50.4			53.3	54.7	57.9	60.5	62.9	65.4		69.9	71.1	
PV of PPG external debt	...	...	9.0			10.0	10.1	10.4	10.6	10.8	10.9		11.6	11.5	
In percent of exports	...	...	50.4			53.3	54.7	57.9	60.5	62.9	65.4		69.9	71.1	
In percent of government revenues	...	...	104.4			87.7	95.2	94.4	94.4	94.0	93.5		91.2	91.8	
Debt service-to-exports ratio (in percent)	0.7	1.1	2.0			1.2	1.6	2.2	2.6	2.6	2.6		2.6	3.7	
PPG debt service-to-exports ratio (in percent)	0.7	1.1	2.0			1.2	1.6	2.2	2.6	2.6	2.6		2.6	3.7	
PPG debt service-to-revenue ratio (in percent)	1.8	2.0	4.1			2.0	2.8	3.5	4.1	3.8	3.6		3.4	4.8	
Total gross financing need (Millions of U.S. dollars)	-20.3	39.4	27.8			-14.0	23.2	28.3	35.5	42.0	51.1		58.9	77.3	
Non-interest current account deficit that stabilizes debt ratio	-4.2	3.4	4.4			-1.1	3.7	4.0	4.7	5.3	5.6		5.2	4.5	

Table 1 .Guinea-Bissau: External Debt Sustainability Framework, Baseline Scenario, 2011-2034 1/ Cont.

(In percent of GDP, unless otherwise indicated)

Key macroeconomic assumptions															
Real GDP growth (in percent)	9.0	-2.2	0.3	3.1	2.9	2.5	4.0	3.7	3.7	3.7	3.7	3.6	4.0	4.0	4.0
GDP deflator in US dollar terms (change in percent)	19.3	-11.2	-0.2	4.6	11.0	5.7	2.0	2.8	3.2	3.1	3.1	3.3	2.5	2.5	2.5
Effective interest rate (percent) 5/	0.6	0.1	0.4	0.7	0.4	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.2	0.1	0.2
Growth of exports of G&S (US dollar terms, in percent)	84.1	-41.4	5.4	12.8	32.9	13.2	4.3	3.7	4.5	4.5	4.6	5.8	6.4	6.1	6.4
Growth of imports of G&S (US dollar terms, in percent)	13.6	-25.2	-1.2	10.0	14.7	21.2	4.7	6.1	6.6	6.4	5.7	8.5	5.5	5.6	5.5
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	53.3	60.7	52.4	52.4	52.4	52.1	53.9	50.5	50.5	50.7
Government revenues (excluding grants, in percent of GDP)	10.1	9.4	8.7	...	...	11.4	10.6	11.0	11.2	11.4	11.7	...	12.7	12.5	12.6
Aid flows (in Millions of US dollars) 7/	82.9	42.2	42.9	...	...	94.1	78.1	83.5	87.8	94.0	97.6	...	124.8	212.7	...
of which: Grants	73.0	23.8	35.9	...	...	84.6	57.4	61.2	65.5	70.0	73.7	...	93.9	154.2	...
of which: Concessional loans	9.9	18.5	7.0	...	...	9.4	20.7	22.3	22.2	24.0	23.9	...	30.9	58.6	...
Grant-equivalent financing (in percent of GDP) 8/	...	...	...	...	...	9.3	6.2	6.2	6.2	6.1	6.0	...	5.6	4.9	5.4
Grant-equivalent financing (in percent of external financing) 8/	...	...	...	...	...	90.2	90.4	87.4	87.3	87.9	87.6	...	87.1	85.7	86.8
<i>Memorandum items:</i>															
Nominal GDP (Millions of US dollars)	1104.7	959.4	961.1	...	...	1041.8	1105.0	1177.4	1260.1	1346.7	1439.3	...	1981.3	3754.2	...
Nominal dollar GDP growth	30.1	-13.2	0.2	...	...	8.4	6.1	6.6	7.0	6.9	6.9	7.0	6.6	6.6	6.6
PV of PPG external debt (in Millions of US dollars)	...	...	89.7	...	...	102.5	111.5	122.6	133.8	145.3	158.0	...	230.3	433.0	...
(Pvt-Pvt-1)/GDPt-1 (in percent)	...	...	...	...	...	1.3	0.9	1.0	1.0	0.9	0.9	1.0	0.9	0.7	0.8
Gross workers' remittances (Millions of US dollars)	22.3	24.3	28.5	...	...	32.6	33.2	33.7	34.3	34.9	35.5	...	38.6	45.7	...
PV of PPG external debt (in percent of GDP + remittances)	...	...	8.8	...	...	9.7	9.8	10.1	10.3	10.5	10.7	...	11.4	11.4	...
PV of PPG external debt (in percent of exports + remittances)	...	...	43.3	...	...	45.6	47.0	49.9	52.4	54.6	57.0	...	62.5	66.1	...
Debt service of PPG external debt (in percent of exports + remittances)	...	...	1.7	...	...	1.0	1.4	1.9	2.3	2.2	2.2	...	2.3	3.4	...

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - \rho(1+g)] / (1+g+\rho+g\rho)$ 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, 2014-2034

(In percent)

	Projections							
	2014	2015	2016	2017	2018	2019	2024	2034
PV of debt-to GDP ratio								
Baseline	10	10	10	11	11	11	12	11
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2014-2034 1/	10	10	9	9	8	7	4	4
A2. New public sector loans on less favorable terms in 2014-2034 2	10	11	11	12	13	13	16	18
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2015-2016	10	10	11	11	12	12	12	12
B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/	10	12	16	16	16	16	16	13
B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016	10	11	12	13	13	13	14	14
B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/	10	11	12	13	13	13	13	12
B5. Combination of B1-B4 using one-half standard deviation shocks	10	12	15	15	15	15	15	14
B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/	10	14	15	15	15	16	16	16
PV of debt-to-exports ratio								
Baseline	53	55	58	61	63	65	70	71
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2014-2034 1/	53	52	52	50	47	43	24	22
A2. New public sector loans on less favorable terms in 2014-2034 2	53	58	64	69	74	79	94	113
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2015-2016	53	55	58	61	63	66	70	71
B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/	53	87	153	157	161	165	164	139
B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016	53	55	58	61	63	66	70	71
B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/	53	60	70	72	75	77	80	75
B5. Combination of B1-B4 using one-half standard deviation shocks	53	65	86	88	91	94	96	89
B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/	53	55	58	61	63	66	70	71
PV of debt-to-revenue ratio								
Baseline	88	95	94	94	94	93	91	92
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2014-2034 1/	88	90	84	78	71	62	32	28
A2. New public sector loans on less favorable terms in 2014-2034 2	88	101	104	107	110	112	122	145
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2015-2016	88	99	102	102	101	101	98	99
B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/	88	116	147	145	142	139	126	106
B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016	88	104	113	113	113	112	109	110
B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/	88	105	114	113	111	110	104	97
B5. Combination of B1-B4 using one-half standard deviation shocks	88	110	133	132	130	129	120	110
B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/	88	135	134	134	134	133	130	131

Table 2. Guinea-Bissau: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2014-2034 (continued)

(In percent)

Debt service-to-exports ratio

Baseline	1	2	2	3	3	3	3	4
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2014-2034 1/	1	2	2	3	3	3	2	2
A2. New public sector loans on less favorable terms in 2014-2034 2	1	2	2	3	3	4	4	7
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2015-2016	1	2	2	3	3	3	3	5
B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/	1	2	4	6	6	6	9	10
B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016	1	2	2	3	3	3	3	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/	1	2	2	3	3	3	4	5
B5. Combination of B1-B4 using one-half standard deviation shocks	1	2	3	4	4	4	5	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/	1	2	2	3	3	3	3	5

Debt service-to-revenue ratio

Baseline	2	3	4	4	4	4	3	5
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2014-2034 1/	2	3	4	4	4	4	3	2
A2. New public sector loans on less favorable terms in 2014-2034 2	2	3	4	5	5	5	5	9
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2015-2016	2	3	4	5	5	4	4	6
B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/	2	3	4	5	5	5	7	7
B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016	2	3	5	5	5	5	5	7
B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/	2	3	4	5	4	4	5	6
B5. Combination of B1-B4 using one-half standard deviation shocks	2	3	4	5	5	5	6	7
B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/	2	4	5	6	6	6	6	8
<i>Memorandum item:</i>								
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 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 Debt Sustainability Framework, Baseline Scenario, 2011-2034

(In percent of GDP, unless otherwise indicated)

	Actual			Average ^{5/} Standard ^{5/} Deviation		Estimate		Projections								
	2011	2012	2013	Average	Standard Deviation	2014	2015	2016	2017	2018	2019	2014-19 Average	2024	2034	2020-34 Average	
Public sector debt 1/	0.6	2.1	1.7			-0.4	3.1									
<i>of which: foreign-currency denominated</i>	43.7	49.2	53.7			56.8	60.7	64.6	67.4	64.2	61.3		46.5	26.9		
	17.3	18.6	18.2			19.6	19.7	20.0	20.2	20.3	20.4		20.5	19.5		
	26.4	30.6	35.5			37.2	41.0	44.6	47.2	43.9	40.9		26.1	7.4		
Change in public sector debt	-0.2	5.4	4.5			3.1	3.9	3.9	2.8	-3.2	-2.9		-3.0	-1.1		
Identified debt-creating flows	-25.4	5.2	2.7			-3.3	-0.3	-0.7	-1.0	-1.6	-1.7		-2.4	-1.0		
Primary deficit	0.6	2.1	1.7	1.0	3.3	-0.4	3.1	2.4	2.2	1.8	1.6	1.8	0.3	0.6	0.4	
Revenue and grants	16.7	11.9	12.4			19.5	15.8	16.2	16.4	16.6	16.8		17.5	16.6		
<i>of which: grants</i>	6.6	2.5	3.7			8.1	5.2	5.2	5.2	5.2	5.1		4.7	4.1		
Primary (noninterest) expenditure	17.3	14.0	14.1			19.1	18.9	18.5	18.6	18.4	18.4		17.7	17.3		
Automatic debt dynamics	-8.3	3.1	1.0			-2.4	-3.4	-3.1	-3.1	-3.4	-3.2		-2.7	-1.7		
Contribution from interest rate/growth differential	-7.1	2.0	0.9			-2.5	-3.1	-2.9	-2.9	-3.2	-3.1		-2.6	-1.6		
<i>of which: contribution from average real interest rate</i>	-3.5	1.0	1.0			-1.2	-0.9	-0.7	-0.6	-0.8	-0.8		-0.7	-0.5		
<i>of which: contribution from real GDP growth</i>	-3.6	1.0	-0.2			-1.3	-2.2	-2.2	-2.3	-2.4	-2.3		-1.9	-1.1		
Contribution from real exchange rate depreciation	-1.2	1.1	0.1			0.1	-0.3	-0.2	-0.2	-0.2	-0.2		...	...
Other identified debt-creating flows	-17.7	0.0	0.0			-0.5	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)	-17.7	0.0	0.0			-0.5	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	25.2	0.2	1.8			6.5	4.2	4.6	3.8	-1.7	-1.2		-0.6	-0.1		
Other Sustainability Indicators																
PV of public sector debt	...	...	44.5			47.2	51.1	54.9	57.8	54.6	51.8		37.7	18.9		
<i>of which: foreign-currency denominated</i>	...	...	9.0			10.0	10.1	10.4	10.6	10.8	10.9		11.6	11.5		
<i>of which: external</i>	...	...	9.0			10.0	10.1	10.4	10.6	10.8	10.9		11.6	11.5		
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 2/	7.6	8.9	8.9			6.4	9.8	8.6	8.2	7.2	6.4		3.1	1.4		
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	358.8			241.9	324.0	339.4	352.0	328.3	307.9		215.8	113.6		
PV of public sector debt-to-revenue ratio (in percent)	...	...	513.7			414.7	483.3	499.9	515.2	477.5	442.5		296.3	150.9		
<i>of which: external 3/</i>	...	...	104.4			87.7	95.2	94.4	94.4	94.0	93.5		91.2	91.8		
Debt service-to-revenue and grants ratio (in percent) 4/	2.3	4.5	6.3			3.6	6.0	7.3	8.9	8.2	7.5		5.8	4.7		
Debt service-to-revenue ratio (in percent) 4/	3.8	5.7	9.0			6.1	8.9	10.8	13.1	12.0	10.7		7.9	6.2		
Primary deficit that stabilizes the debt-to-GDP ratio	0.8	-3.3	-2.8			-3.6	-0.8	-1.5	-0.7	5.0	4.5		3.3	1.8		
Key macroeconomic and fiscal assumptions																
Real GDP growth (in percent)	9.0	-2.2	0.3	3.1	2.9	2.5	4.0	3.7	3.7	3.7	3.7	3.6	4.0	4.0	4.0	4.0
Average nominal interest rate on forex debt (in percent)	0.6	0.1	0.4	0.7	0.4	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.2	0.1	0.2	0.2
Average real interest rate on domestic debt (in percent)	-11.7	4.7	4.0	-1.8	6.1	-2.9	-1.9	-1.2	-0.8	-1.0	-1.0	-1.4	-1.4	-1.7	-1.5	-1.5
Real exchange rate depreciation (in percent, + indicates depreciation)	-10.0	6.4	0.5	-1.2	7.4	0.5	...	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	13.8	-3.9	-3.4	2.6	6.5	3.7	2.8	2.2	2.3	2.4	2.4	2.6	2.5	2.5	2.5	2.5
Growth of real primary spending (deflated by GDP deflator, in percent)	2.4	-21.1	1.1	-1.7	6.8	38.9	2.9	1.8	3.8	3.0	3.4	9.0	3.7	3.8	3.6	3.6
Grant element of new external borrowing (in percent)	...	...	...	...	...	53.3	60.7	52.4	52.4	52.4	52.1	53.9	50.5	50.5	...	...

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. Guinea-Bissau: Sensitivity Analysis for Key Indicators of Public Debt 2014-2034

	Projections							
	2014	2015	2016	2017	2018	2019	2024	2034
PV of Debt-to-GDP Ratio								
Baseline	47	51	55	58	55	52	38	19
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	47	51	54	57	54	51	40	24
A2. Primary balance is unchanged from 2014	47	49	52	54	50	46	30	11
A3. Permanently lower GDP growth 1/	47	51	56	59	56	54	42	28
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2015-20	47	53	60	63	60	57	44	27
B2. Primary balance is at historical average minus one standard deviations in 2015-201	47	52	56	59	56	53	39	20
B3. Combination of B1-B2 using one half standard deviation shocks	47	52	57	60	57	55	41	23
B4. One-time 30 percent real depreciation in 2015	47	55	58	60	57	53	38	17
B5. 10 percent of GDP increase in other debt-creating flows in 2015	47	56	60	62	59	56	41	21
PV of Debt-to-Revenue Ratio 2/								
Baseline	242	324	339	352	328	308	216	114
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	242	320	333	344	319	299	221	139
A2. Primary balance is unchanged from 2014	242	313	321	327	298	272	174	64
A3. Permanently lower GDP growth 1/	242	326	343	358	336	317	236	166
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2015-20	242	333	360	376	353	334	248	159
B2. Primary balance is at historical average minus one standard deviations in 2015-201	242	328	349	361	337	316	223	118
B3. Combination of B1-B2 using one half standard deviation shocks	242	328	349	363	340	321	233	139
B4. One-time 30 percent real depreciation in 2015	242	347	359	368	341	318	217	102
B5. 10 percent of GDP increase in other debt-creating flows in 2015	242	355	369	380	355	334	238	127
Debt Service-to-Revenue Ratio 2/								
Baseline	4	6	7	9	8	7	6	5
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	4	6	7	9	8	7	6	5
A2. Primary balance is unchanged from 2014	4	6	7	9	8	7	5	2
A3. Permanently lower GDP growth 1/	4	6	7	9	8	8	6	6
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2015-20	4	6	8	9	9	8	6	6
B2. Primary balance is at historical average minus one standard deviations in 2015-201	4	6	7	9	8	8	6	5
B3. Combination of B1-B2 using one half standard deviation shocks	4	6	8	9	9	8	6	6
B4. One-time 30 percent real depreciation in 2015	4	6	8	10	9	9	7	6
B5. 10 percent of GDP increase in other debt-creating flows in 2015	4	6	8	9	9	8	7	6

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.