INTERNATIONAL MONETARY FUND
INTERNATIONAL DEVELOPMENT ASSOCIATION

GUINEA

Joint Debt Sustainability Analysis Under the Debt Sustainability Framework for Low-Income Countries[1]

Prepared by the Staffs of the World Bank and the International Monetary Fund

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Guinea has been in debt distress since 2007, as evidenced by the accumulation of external debt service arrears. With approval of the proposed ECF arrangement and accompanying bilateral debt relief, the risk of debt distress would shift to high risk. Under scenarios that assume full delivery of relief on external debt under the Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI) at the Completion Point and of "beyond-HIPC" debt relief after the Completion Point, the debt burden would imply a moderate risk of debt distress. The public sector debt sustainability analysis (DSA) indicates that Guinea's domestic debt is significant but is expected to decrease over the longer run and does not alter the assessment. As the initial debt level is high, the debt position of the country remains vulnerable to macroeconomic shocks, indicating the need for prudent fiscal policies and debt management.

I. Background

1. **This DSA updates the analysis of the external and public debt of Guinea that was considered by the Board in December 2007**.[2] The 2007 DSA found that Guinea was in debt distress, as evidenced by the accumulation of external debt service arrears. Since then, Guinea has continued to accumulate arrears. In the baseline scenario, it is assumed that these arrears and debt service obligations falling due are rescheduled and debt service payments resume. In this case, the risk of debt distress would be high, although debt dynamics would improve over the medium and long terms.[3] Staffs' projections now include a new large

[1] The DSA was prepared jointly by the staffs of the International Monetary Fund and the World Bank, in collaboration with the authorities of Guinea. The fiscal year in Guinea is January 1 to December 30.

[2] See Appendix IV of IMF Country Report No. 08/33, January 2008, which can be found at: http://www.imf.org/external/pubs/ft/scr/2008/cr0833.pdf

[3] The DSAs presented in this document are based on the low-income countries (LIC) DSA framework. Under the Country Policy and Institutional Assessment (CPIA), Guinea is rated as a weak performer, with an average rating of 2.86 in 2008–10; the DSA uses the indicative threshold indicators for countries in this category. See

(continued…)

mining project, which is expected to generate a significant increase in output growth and fiscal revenues. In addition, the projections assume Guinea will reach a new Paris Club agreement, following the approval of the proposed new ECF arrangement with the Fund.

2. **Guinea reached the decision point under the Enhanced HIPC Initiative in December 2000**, **qualifying for US$545 million (in NPV terms) in debt relief**. Since then interim debt relief has been provided intermittently by most major creditors, reflecting performance under the 2001 and 2007 ECF arrangements. Following the approval of the ECF arrangement in December 2007, Guinea concluded an agreement with Paris Club creditors in January 2008, and interim debt relief resumed. However, by 2008 the African Development Bank (AfDB) had exhausted resources allocated for interim debt relief, and in May 2008 interim relief from IDA stopped after the statutory limit was reached. Moreover, interim relief from Paris Club creditors was not activated during 2009–10, and was suspended by the IMF and other creditors following the military coup in December 2008.

3. **At end-2010**, **Guinea's public and publicly guaranteed external debt was US$3,144 million**, **or 64 percent of 2010 GDP**. The level of debt in nominal terms has been broadly stable in recent years, reflecting a low level of new loans and debt service paid, but with arrears accounting for a growing share (amounting to 10 percent of end-2010 debt outstanding) Multilateral creditors accounted for 66 percent of the total, with the AfDB group and IDA accounting for almost four-fifths of the multilaterals' share. Paris Club creditors accounted for 25 percent of total, while official bilateral non-Paris Club and commercial creditors made up the rest.[4]

4. **External debt service arrears reached US$315 million at end-2010**. Paris Club creditors accounted for 33 percent of the arrears and multilateral financial institutions for a further 30 percent, including 19 percent for IDA (there were no overdue obligations to the IMF). Arrears to the Paris Club members accrued on both pre-cut-off and post-cut-off debts; the cut-off date is January 1, 1986. HIPC interim assistance was discontinued by a majority of creditors in 2009–10. During 2011, the government cleared its arrears with all multilateral creditors, except the European Investment Bank, and resumed debt service payments to them.[5]

"Debt Sustainability in Low-Income Countries: Proposal for an Operational Framework and Policy Implications" (http://www.imf.org/external/np/pdr/sustain/2004/020304.htm and IDA/SECM2004/0035, 2/3/04) and "Debt Sustainability in Low-Income Countries: Further Considerations on an Operational Framework, Policy Implications" http://www.imf.org/external/np/pdr/sustain/2004/091004.htm and IDA/SECM2004/0629, 9/10/04) and "A Review of Some Aspects of the Low-Income Country Debt Sustainability Framework" (http://www.imf.org/external/np/pp/eng/2009/080509a.pdf) and "Staff Guidance Note on the Application of the Joint Bank-Fund Debt Sustainability Framework for Low-Income Countries" (http://www.imf.org/external/np/pp/eng/2010/012210.pdf).

[4] Guinea has no debt service obligations falling due to commercial creditors, and arrears account for the full amount of debt outstanding.

[5] Arrears to the European Investment Bank (EIB) were partially cleared, and Guinea obtained financing assurances from the European Commission regarding remaining arrears on European Development Fund lending managed by the EIB, which provides for their clearance when the completion point is reached.

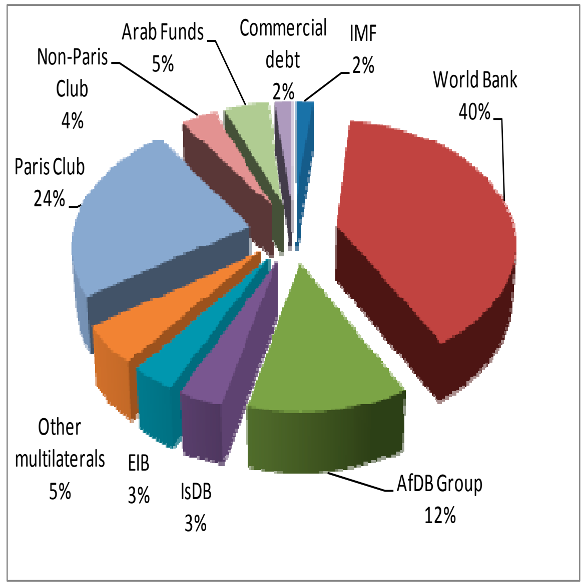
Guinea: Structure of External Public Debt (end-2010, nominal)

Text Table 1

	US$ million	percent of GDP
Total	**3,144**	**63.80**
Multilaterals	**2,072**	**42.03**
IMF	57	1.16
World Bank	1,254	25.44
AfDB Group	388	7.88
IsDB	109	2.21
EIB	106	2.15
Other multilaterals	158	3.20
Official bilaterals	**1,019**	**20.67**
Paris Club	756	15.35
Non-Paris Club	117	2.37
Arab Funds	145	2.95
Commercial debt	**54**	**1.10**

Sources: Guinea authorities, and AfDB, World Bank and IMF staff estimates.

Text Figure 1



5. **Public domestic debt increased considerably in 2009–10**, **mainly reflecting advances by the central bank to the government**. During the military regime, soaring expenditures were financed by borrowing from the domestic banking system. The liabilities of the government to the domestic banking system increased sharply from 13 percent of GDP in 2008, to 19 percent in 2009, and 30 percent in 2010. Some three-quarters of domestic debt were owed to the central bank, and the remainder in short-term treasury bills to domestic banks.

II. Baseline Assumptions

6. **The baseline macroeconomic framework assumes a sizeable expansion in economic activity**, **reflecting the impact of the start of large mining investments (Box 1)**. The baseline assumes political stability, sound macroeconomic management, prudent borrowing policies, and advancement in structural reforms over the medium term. It also assumes a substantial rise in public investment, especially in long-neglected infrastructure and the energy sector, as well as government support to develop agriculture and improve the business climate. These policies would provide a foundation for an increase in private investment, and would contribute to diversification of the economy and unlocking Guinea's long-run economic growth potential. Risks with regard to the macroeconomic projections include renewed political instability, especially in the run-up to parliamentary elections expected in 2012, developments in the global economic outlook and mineral prices, and the possibility of projected mining production and revenues not materializing.

Box 1. Macroeconomic Assumptions for 2011–31

Real GDP growth: Reflecting the political crisis, real GDP growth stagnated during 2009–10 before rebounding to 3.6 percent in 2011. Real output growth is projected to increase to almost 5 percent on average during 2012–14, reflecting investor confidence and the start-up of construction-phase activities in the mining sector. Growth is projected to jump to 18 percent on average during 2015–17, as production from a major mining project begins and ramps up. Once mining production reaches full capacity, growth tails off and after 2020 is expected to return to about 3 percent per year.

Mineral prices: For bauxite and gold, projections for 2012–17 are based on the Fund's World Economic Outlook (WEO), and for the long-run an average annual price increase is assumed of 1 percent for bauxite and 2 percent for gold. The iron ore price projections are based on industry estimates, beginning 2015 when the SIMFER mine comes on stream (Text Figure 2). While WEO historical data for iron ore prices show a steady upward trend to 2009 and a very sharp increase in 2011, they are projected to subsequently decline by about 40 percent by 2015.

Inflation: As measured by the GDP deflator in U.S. dollar terms, inflation is projected to be around 3 percent in the long term, close to CPI inflation projections in Guinea and in neighboring countries.

Fiscal policy: Following a large deterioration in the primary balance in 2009–10, reaching 12 percent of GDP in 2010, a sharp policy-induced correction reduced it to 1.3 percent in 2011. Thereafter the primary deficit steadily declines and moves into surplus in 2023, leveling off at around 1.5 percent. Total revenues (excluding grants) are projected to rise from 15.3 percent of GDP in 2010 to 19.8 percent in 2014; thereafter revenues from the mining sector rise sharply as new production comes on line, although given the mining-related increase in GDP, revenues in terms of GDP rise only slightly. Following a sharp contraction, from 27.7 percent of GDP in 2010 to 22.4 percent in 2011, total primary expenditure rises to around 25.2 percent by 2016, reflecting a rapid pick up in capital expenditures, and then gradually falls to around 19 percent of GDP as capital expenditure level off and current spending as a share of GDP declines slightly.

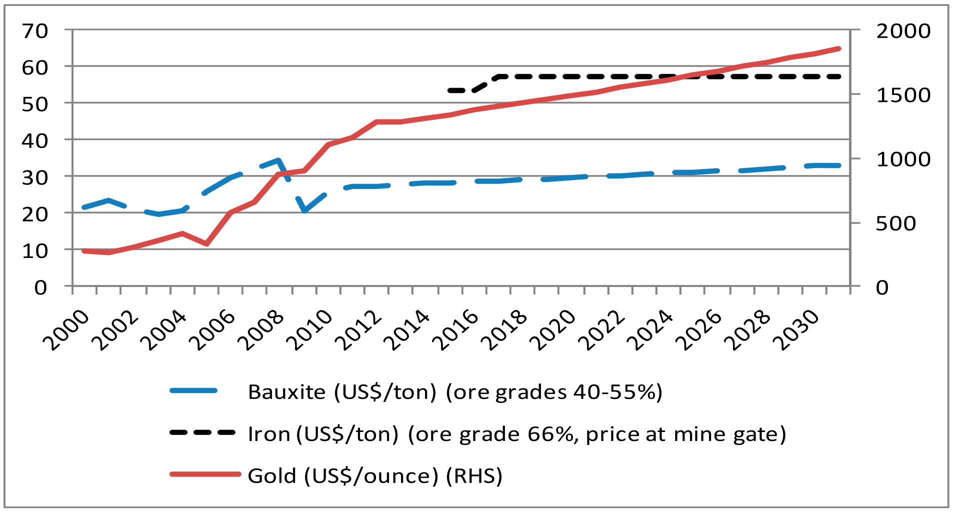
External current account balance (excluding official transfers): The current account deficit is expected to expand sharply to 32.7 percent of GDP on average during 2012–15, as imports for the mega mining project ramp up during its construction phase. Subsequently, the current account swings into a small surplus by 2017 as mining sector investment declines and exports come on stream. In 2023 the balance moves back into deficit, rising gradually to about 3 percent by 2031 as mining exports and imports stabilize, while other imports continue to rise gradually.

External financing: After the suspension of virtually all official financing in 2009–10, loan and grant disbursements resumed in 2011 and are projected to reach 5 percent of GDP in 2012, of which half takes the form of grants. Although a scaling up is not foreseen, official financing is expected to continue at a relatively high level in the medium term, averaging 5 percent of GDP per year, and is assumed to provide financing for investment projects. Over time, the share of concessional loans is expected to decline, from 80 percent during 2011–15 to 60 percent during 2023–31.

Foreign direct investment: Net FDI is expected to surge temporarily to 32.8 percent of GDP per year on average during 2012–15, owing to the rapid buildup in mining related activities. Subsequently net FDI falls and over the long-run shifts between small net inflows and outflows. At the same time, net outflows on the income account increase, as the repatriation and distribution of profits from the mining sector rises.

7. **The baseline scenario assumes interim HIPC assistance from Paris Club creditors and the IMF**. The debt burden would be reduced with attainment of a new Paris Club agreement, covering the period 2012–14, on terms similar to those in the 2008 agreement;[6] debt relief on comparable terms is assumed for other bilateral non-Paris Club creditors, including on arrears.

Text Figure 2: Guinea: Mineral Prices Development and Projections



Sources: Guinean authorities and IMF staff estimates and projections.

8. **An important element underpinning the baseline macroeconomic framework and the surge in growth and mining exports is the SIMFER mining and infrastructure project**. The development of the SIMFER iron ore mine[7] also includes the construction of a railway and port to ship the iron ore. The ownership of the mining project and of the infrastructure project involves two separate consortia, both including the government, that are responsible for financing the total cost, estimated at about $13 billion (one-third mining and two-thirds for infrastructure) in proportion to each shareholder's equity stake. The mine is projected to come on stream in 2015 and attain a maximum production capacity of 95 million tons by 2018. The government will receive a 15 percent stake in the mine at no cost. It also has options to hold an additional 20 percent fully- contributing stake in the mine and up to 51 percent in the infrastructure project. As of now the government has not exercised either of the options for fully-contributing stakes. In the baseline and the first alternative scenarios it is assumed that the government does not exercise these options, and/or that it arranges financing through a PPP operation in which investment cost is born by the private partner, with no contingent liabilities for the government. As a result, both

[6] In 2008 Paris Club creditors agreed to provide debt relief on exceptional terms. Under the agreement pre-cutoff-date arrears were either cancelled or rescheduled, while repayment of short-term and post-cut-off date areas was deferred until after 2010, as was part of debt service falling due in 2008–10.

[7] The mine is located at the southern end of the Simandou Range located in the eastern part of Guinea.

projects would not generate a financing need and additional borrowing, which is unlikely to be available in the amounts needed (up to a maximum of about $4.6 billion) on concessional terms.

III. External Debt Sustainability under the Baseline Scenario

9. **Under the baseline scenario**, **which assumes no HIPC completion point**, **Guinea is at high risk of debt distress** (Table 1a, Figure 1a). At end-2011, the debt burden indicators related to PV of external debt are estimated to be above the policy thresholds. More precisely, the PV of external debt-to-GDP ratio is 41.3 percent (threshold: 30 percent); the PV of debt-to-exports ratio is 137 percent (threshold: 100 percent); and the PV of debt-to-revenue ratio is 234 percent (threshold: 200 percent). The indicators relating to debt service were just below the policy thresholds. In the baseline scenario, the PV of external debt-to-GDP and PV of external debt-to-exports ratios are projected to remain above the threshold for four years. Liquidity indicators embodying debt service fall, reflecting a strengthening of revenue collection and debt relief from the assumed Paris Club agreement, although the fall levels off as payments rise at the end of the consolidation period, and then decline rapidly to 2020 as deferred post-cut-off date arrears and debt service is repaid rapidly.

10. **Stress tests show that the external debt burden indicators are vulnerable to adverse shocks (Figure 1a)**. If the main economic variables remain at their historical level, and policy improvements and the expected growth dividend assumed under the baseline do not materialize, the PV of debt-to-GDP ratio would remain above the policy threshold until 2027, and thereafter follow a declining trend. The other debt burden indicators also deteriorate early in the projection period, exceeding their respective thresholds, before declining below their respective policy thresholds over the longer run. The indicators are also highly sensitive to exogenous shocks. Under most of the shocks considered in this analysis the debt burden indicators would deteriorate significantly,[8] the shocks on exports and on non-debt creating flows (such as net foreign direct investment) are particularly important. This reflects the fact that the improvement in macroeconomic prospects depends heavily on the projected large inflow of foreign direct investments in the mining sector and related jump in mining exports.

IV. Public Sector Debt Sustainability

11. **The inclusion of domestic debt in the debt sustainability analysis worsens the debt burden indicators**, **although the domestic debt burden is expected to decrease over time**. Following the large increase in borrowing from the domestic banking system in 2009–10, the authorities virtually eliminated new borrowing in 2011, and in 2012 there is no bank financing planned for the budget. In addition, net repayments of domestic debt are expected

[8] Simulations included shocks on GDP growth, export growth, inflation, non-debt creating flows, and exchange rate depreciation.

to continue in the future.[9] As a result, the PV of public debt-to-GDP ratio (estimated at 51 percent at end-2011) is projected to decline in the medium term (Table 2a and Figure 1b).

12. **The public debt position is vulnerable to shocks, particularly to policy reversals** (Table 2b and Figure 1b). Under the fixed primary balance and the most extreme shock scenarios, the public debt burden indicators would be at least twice as high compared to the trajectories under the baseline scenario in the long term.

V. EXTERNAL DEBT SUSTAINABILITY UNDER ALTERNATIVE SCENARIOS WITH FURTHER DEBT RELIEF

13. **Staff has examined two alternative scenarios**: **first**, **HIPC and MDRI relief**; **and second**, **HIPC/MDRI debt relief and a higher level of government borrowing to finance the SIMFER mine and infrastructure project (Figures 2a--2b)**. The assumptions and macroeconomic framework under the first scenario corresponds to that envisaged in the proposed ECF arrangement. Guinea is projected to reach the HIPC Completion Point in the third quarter of 2012, assuming the country maintains a good macroeconomic track record under an ECF-supported program in place in early 2012, and the structural reform program remains on track.

14. **Guinea's external debt position would improve significantly under HIPC and MDRI debt relief**.[10] Debt stock and debt service ratios would immediately fall and remain below their policy thresholds. The sharp drop reflects in particular the impact of HIPC and MDRI relief from multilaterals, especially the World Bank, which holds the largest share (61 percent at end-2010). If HIPC and MDRI debt relief is implemented from the fourth quarter of 2012, Guinea's outstanding external debt (in net present value terms) is estimated to be cut from 41.3 percent of GDP to 20.3 percent at end-2012. [11]

15. **The first alternative scenario assumes a similar level of public spending but a lower financing gap**, **and the same composition of new borrowing as under the baseline**. This scenario assumes that the fiscal saving created by the reduction in debt service from HIPC and MDRI debt relief would be used to lower the amount of foreign borrowing while

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[9] Under an agreement between the Ministry of Economy and Finance and the central bank, the government will repay its advances over a period of 40 years, starting in 2020.

[10] This scenario assumes participation by official bilateral creditors and commercial creditors. The staff estimates for HIPC completion point and MDRI debt relief are based on authorities' data and subject to loan data verification and confirmation in the detailed pre-completion point debt analysis (HIPC DSA).

[11] Staff also examined a scenario that included HIPC and MDRI relief and additional bilateral relief beyond HIPC/MDRI provided by official bilateral creditors; the projected relief is based on treatments provided in other HIPC Completion Point cases. With the additional debt relief, the net present value of external debt to GDP at end-2012 is projected to be 13.4 percent compared with 20.3 percent under the HIPC/MDRI scenario, and the trajectories of debt burden indicators would be somewhat lower, particularly during the first five years.

maintaining the same level of public spending as under the baseline scenario; the shares of concessional and nonconcessional borrowing in external loans are assumed to be the same as in the baseline. Consistent with this the growth projections are identical in the two scenarios, and the lower financing need contributes to the improvement in debt dynamics.

16. **Under the second alternative scenario**, **it is assumed that the government incurs new borrowing of $2.5 billion during 2013–15 to contribute to the financing of the SIMFER mining and infrastructure project**. Under this scenario, it is assumed that the government purchases an additional amount of equity as compared with the baseline. It is unlikely that such sizeable new borrowing would be available on concessional terms, and the scenario assumes that 60 percent would be secured from official bilateral and 40 percent from commercial creditors during 2013–15 ($1 billion in each of 2013 and 2014, and $0.5 billion in 2015). The scenario does not, however, incorporate a rate of return (income) accruing to the government from the equity stake/investment in the project, which would mitigate the impact of the additional borrowing on the debt burden. Borrowing of this magnitude, equivalent to 51 percent of 2010 GDP (45 percent of projected 2012 GDP), would sharply raise debt burden indicators. The PV of external debt-to-GDP ratio would breach by a sizeable margin the threshold level during 2013–17, while the PV of external debt-to-exports and to-revenues ratios would do so during 2013–15. Liquidity indicators embodying debt service also rise substantially. The debt burden indicators would deteriorate further if the government is assumed to participate in other possible projects involving borrowing on similar terms. If, in addition, it is assumed that the government earns a return on its participation, which would partly offset the burden of servicing the new borrowing, the debt service ratios would remain at elevated levels, given the short grace periods (1–7 years) and maturities (6–23 years) of the borrowing. The sizeable increase in debt service, especially over the medium term, would put pressure on budgetary cash management and crowd out other spending

VI. Conclusions

17. **Under the baseline scenario**, **the risk of debt distress would be high**. Under the external debt sustainability analysis (DSA) baseline scenario, the PV of debt-to-GDP, the PV of debt-to-exports, and the PV of debt-to-revenue are projected to stay above their indicative thresholds over the next few years before falling below these thresholds over the projection period. Stress tests indicate vulnerabilities in the external debt position, involving persistent breaching of the thresholds for some indicators. However, debt service indicators are below their indicative thresholds under the baseline. The inclusion of domestic debt does not alter the assessment, even though it raises debt burden indicators moderately.

18. **A sustainable external debt position can be achieved with the delivery of HIPC and MDRI debt relief backed by sound macroeconomic policies**. With the assumption of debt relief under the HIPC Initiative and MDRI, external debt would decline to a sustainable level, although the debt burden indicators would remain vulnerable to adverse shocks and policy reversals, leading to a breaching of the policy thresholds for a few indicators. The risk of debt distress would shift to moderate. The stress tests highlight the importance of

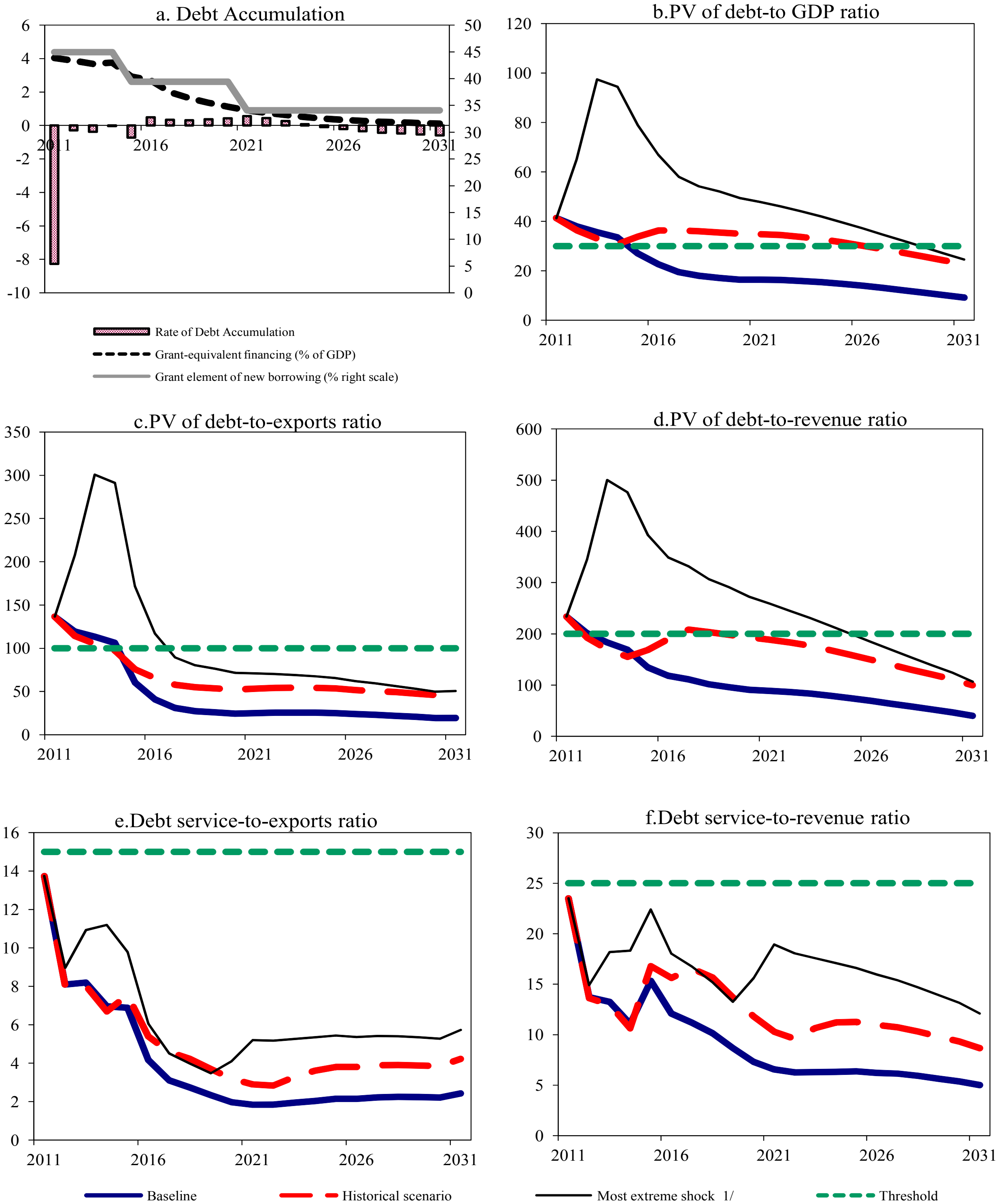
developments in the mining sector for the sustainability of Guinea's external debt; the expansion of activity in this sector is key to boosting growth, exports, and revenues.

19. **Additional large-scale borrowing by the government on non-concessional terms to finance SIMFER mining and infrastructure would result in a significant deterioration in Guinea's external debt position**. In particular, three of the debt burden indicators would breach the policy thresholds, even after HIPC and MDRI debt relief. Furthermore, the impact of the stress tests in increasing the debt burden indicators would be exacerbated, especially for the debt-service ratios, which rise close to or breach the policy thresholds.

20. **This LIC DSA underscores the importance of sustained implementation of sound macroeconomic policies**, **and prudent debt management**, **especially with respect to new large nonconcessional borrowing**. Without such policies, the expected growth dividend may not be realized and projected post-HIPC completion point sustainability would not be assured. This highlights the importance of ensuring that the modalities of the government's participation in the SIMFER mining project (and other potential large-scale mining or hydroelectricity projects) should avoid significant borrowing on nonconcessional terms.

21. **The Guinean authorities broadly concurred with the assumptions and conclusions of the DSA**.

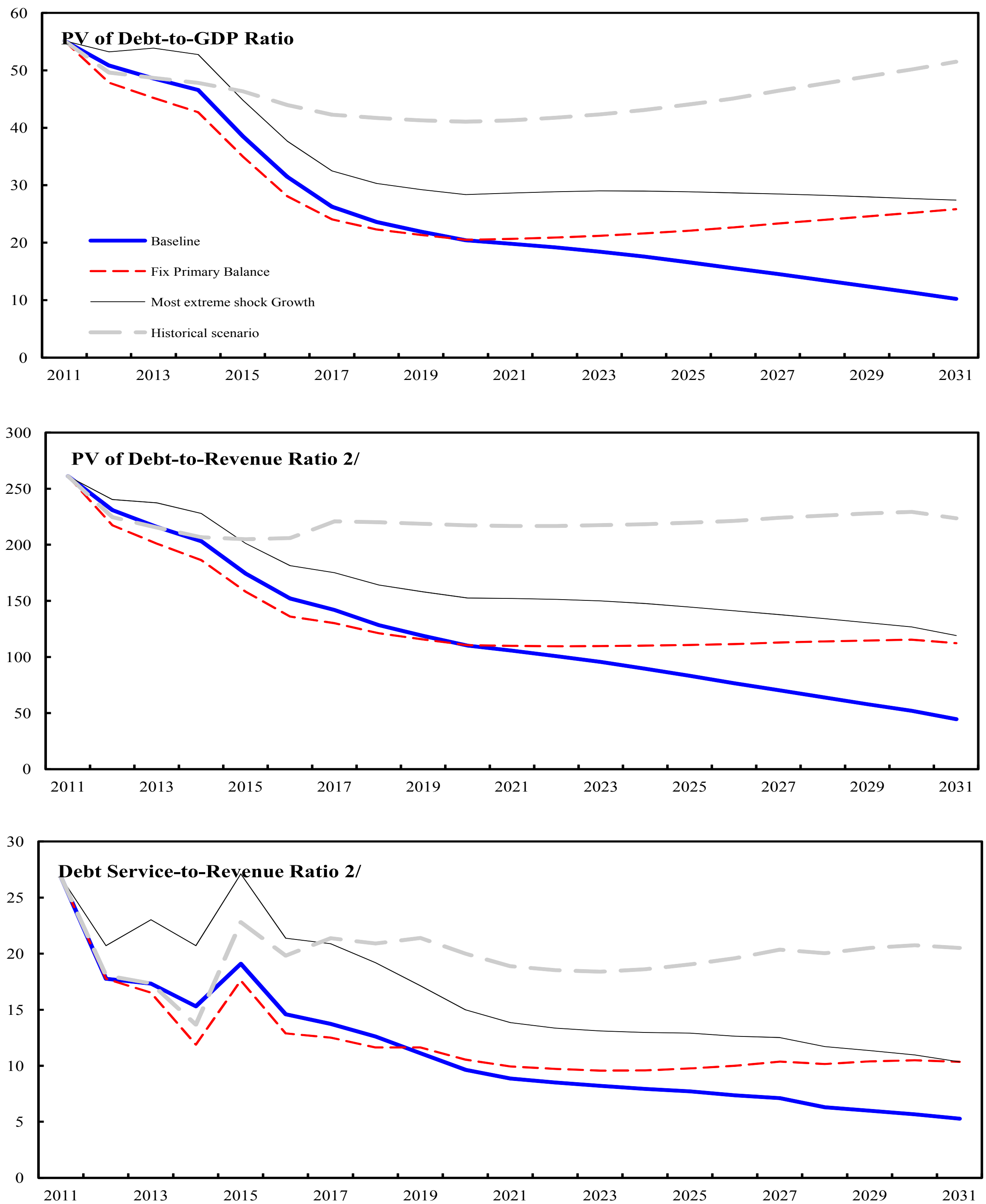
Figure 1a. Guinea: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2011-2031 1/



Sources: Country authorities; and staff estimates and projections.

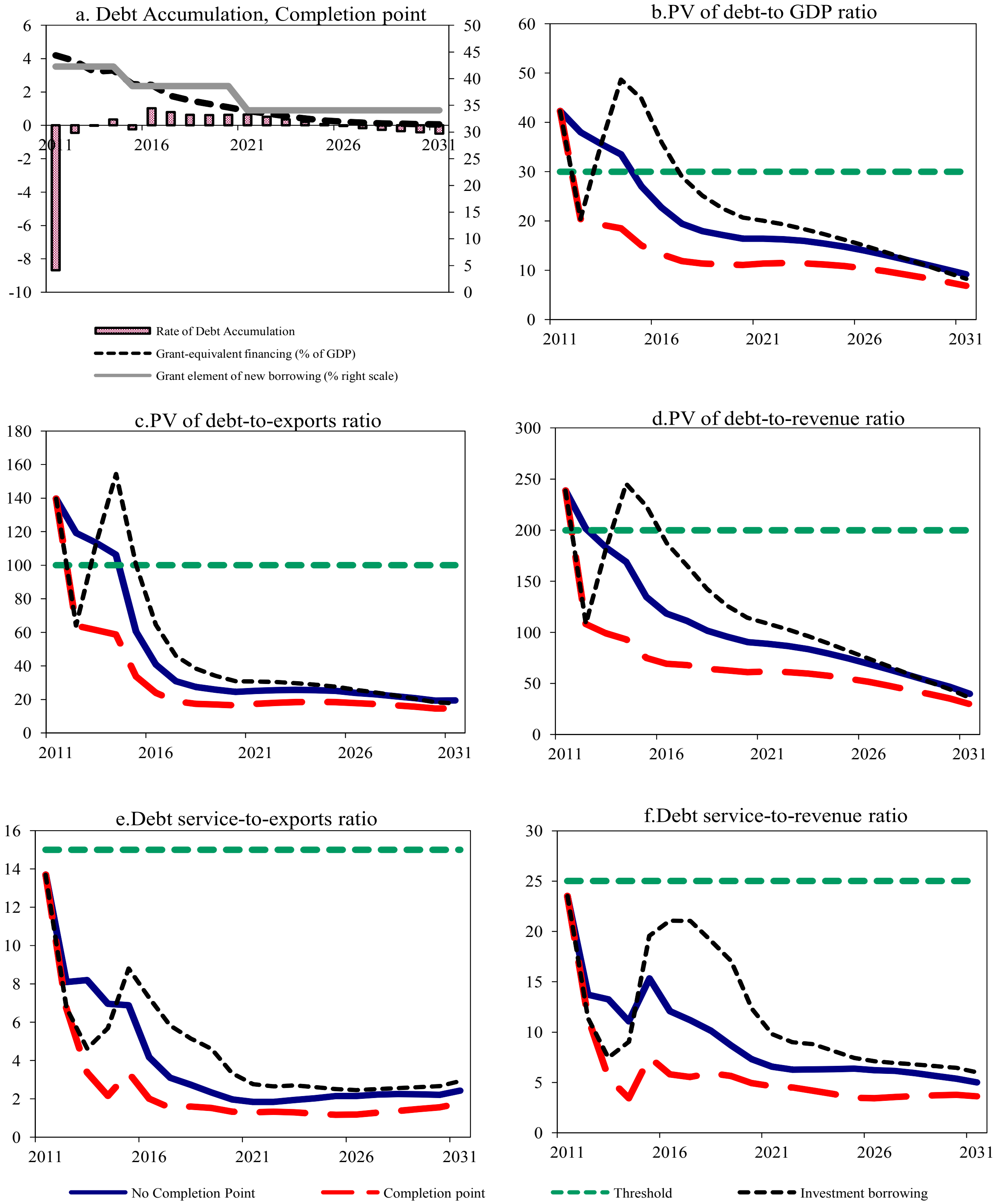
1/ The most extreme stress test is the test that yields the highest ratio in 2021. In figure b. it corresponds to a Combination shock; in c. to a Combination shock; in d. to a Combination shock; in e. to a Combination shock and in figure f. to a Combination shock

Figure 1b.Guinea: Indicators of Public Debt Under Alternative Scenarios, 2011-2031 1/



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in 2021.
2/ Revenues are defined inclusive of grants.

Figure 2a. Guinea: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2011-2031 1/



Sources: Country authorities; and staff estimates and projections.

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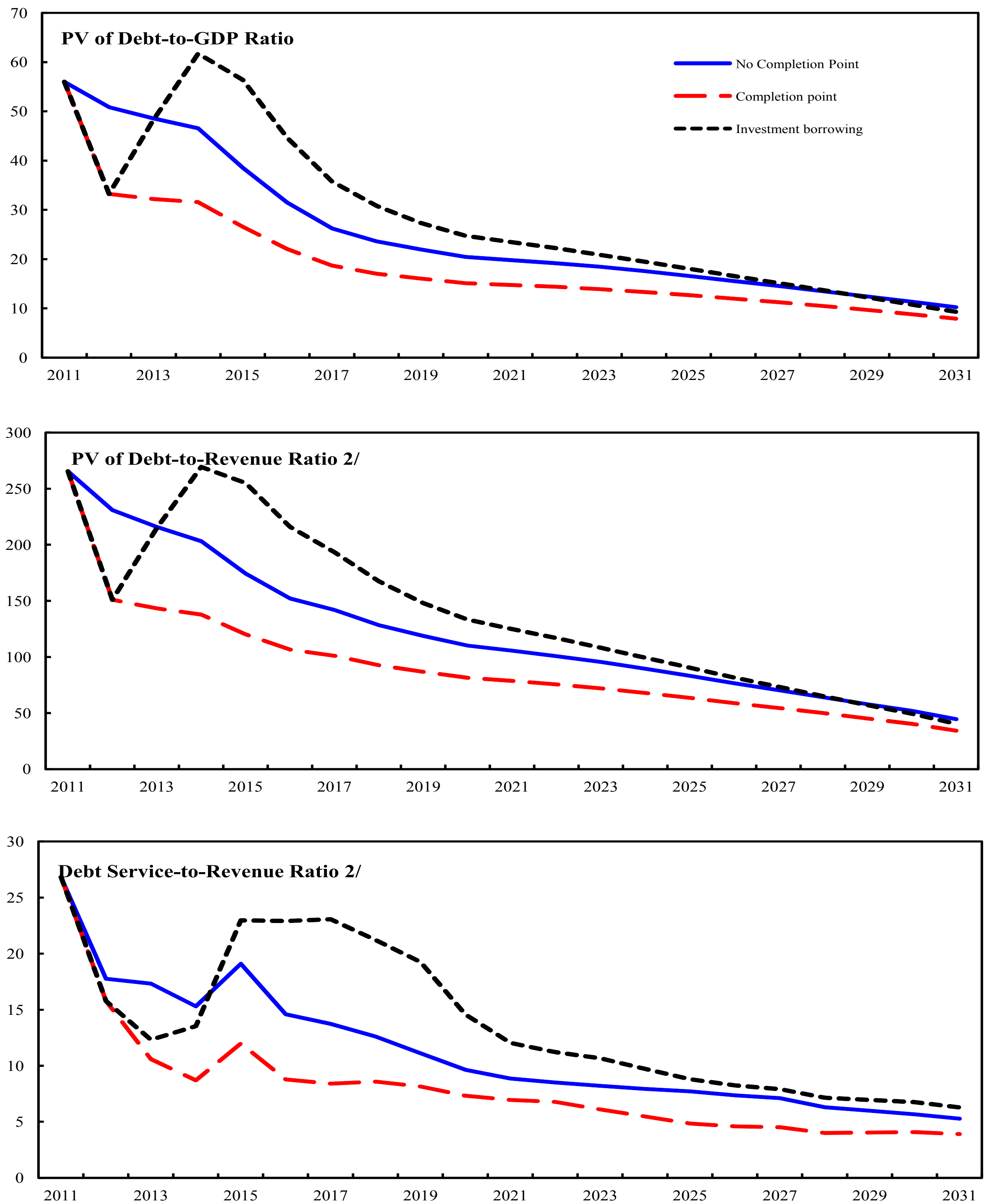
Figure 2b.Guinea: Indicators of Public Debt Under Alternative Scenarios, 2011-2031 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2021.

2/ Revenues are defined inclusive of grants.

Table 1a.: External Debt Sustainability Framework, Baseline Scenario, 2008-2031 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average 6/	Standard Deviation 6/	Projections									
	2008	2009	2010			2011	2012	2013	2014	2015	2016	2011-2016 Average	2021	2031	2017-2031 Average
External debt (nominal) 1/	**77.5**	**71.5**	**70.5**			**55.8**	**51.2**	**47.9**	**44.9**	**36.9**	**31.6**		**24.3**	**14.6**	
o/w public and publicly guaranteed (PPG)	77.5	71.5	70.5			55.8	51.2	47.9	44.9	36.9	31.6		24.3	14.6	
Change in external debt	-0.4	-6.0	-1.0			-14.7	-4.6	-3.2	-3.0	-8.1	-5.2		0.0	-1.3	
Identified net debt-creating flows	-1.6	4.9	5.7			-16.0	-1.0	0.6	-0.2	-14.0	-10.4		-0.3	-0.1	
Non-interest current account deficit	**9.0**	**9.2**	**11.6**	**4.6**	**4.9**	**5.8**	**34.3**	**38.3**	**37.4**	**18.5**	**1.3**		**-0.8**	**3.2**	-0.1
Deficit in balance of goods and services	5.1	4.3	8.2			9.2	31.1	34.8	33.9	16.1	-0.8		-14.5	-7.0	
Exports	34.9	26.5	28.4			30.3	31.9	31.5	31.5	44.7	55.5		65.3	47.1	
Imports	40.1	30.8	36.5			39.5	62.9	66.3	65.4	60.7	54.7		50.8	40.1	
Net current transfers (negative = inflow)	-6.4	-5.3	-5.1	-5.5	2.6	-9.5	-4.8	-4.5	-4.3	-4.1	-3.5		-2.4	-1.9	-2.3
o/w official	-0.4	0.0	0.0			-2.3	-0.1	0.0	0.0	0.0	0.0		0.0	0.0	
Other current account flows (negative = net inflow)	10.3	10.3	8.6			6.0	8.1	8.0	7.8	6.5	5.6		16.1	12.2	
Net FDI (negative = inflow)	**-5.7**	**-3.0**	**-2.4**	**-3.4**	**2.7**	**-20.3**	**-33.5**	**-35.9**	**-35.9**	**-25.7**	**-6.2**		**0.7**	**-3.1**	0.0
Endogenous debt dynamics 2/	**-4.9**	**-1.3**	**-3.5**			**-1.5**	**-1.8**	**-1.8**	**-1.8**	**-6.8**	**-5.6**		**-0.3**	**-0.2**	
Contribution from nominal interest rate	1.3	0.7	0.7			0.9	0.6	0.6	0.5	0.6	0.5		0.3	0.2	
Contribution from real GDP growth	-3.5	0.2	-1.3			-2.4	-2.5	-2.4	-2.3	-7.4	-6.1		-0.6	-0.5	
Contribution from price and exchange rate changes	-2.7	-2.2	-3.0			…	…	…	…	…	…		…	…	
Residual (3-4) 3/	**1.2**	**-10.9**	**-6.7**			**1.3**	**-3.7**	**-3.8**	**-2.8**	**6.0**	**5.2**		**0.4**	**-1.2**	
o/w exceptional financing	-1.4	-0.9	-1.8			-0.1	-2.0	-2.6	-2.7	-1.5	-1.1		0.0	0.0	
PV of external debt 4/	...	...	54.4			41.3	38.0	35.7	33.5	27.0	22.7		16.4	9.2	
In percent of exports	...	...	192.0			136.6	119.3	113.4	106.2	60.5	40.9		25.1	19.5	
PV of PPG external debt	**...**	**...**	**54.4**			**41.3**	**38.0**	**35.7**	**33.5**	**27.0**	**22.7**		**16.4**	**9.2**	
In percent of exports	**...**	**...**	**192.0**			**136.6**	**119.3**	**113.4**	**106.2**	**60.5**	**40.9**		**25.1**	**19.5**	
In percent of government revenues	**...**	**...**	**355.2**			**233.7**	**201.7**	**183.2**	**168.8**	**134.6**	**118.4**		**88.9**	**39.9**	
Debt service-to-exports ratio (in percent)	**3.8**	**2.3**	**2.5**			**13.7**	**8.1**	**8.2**	**7.0**	**6.9**	**4.2**		**1.8**	**2.4**	
PPG debt service-to-exports ratio (in percent)	**3.8**	**2.3**	**2.5**			**13.7**	**8.1**	**8.2**	**7.0**	**6.9**	**4.2**		**1.8**	**2.4**	
PPG debt service-to-revenue ratio (in percent)	**8.5**	**3.8**	**4.6**			**23.5**	**13.7**	**13.2**	**11.1**	**15.3**	**12.1**		**6.5**	**5.0**	
Total gross financing need (Billions of U.S. dollars)	0.2	0.3	0.5			-0.5	0.2	0.3	0.2	-0.3	-0.2		0.2	0.3	
Non-interest current account deficit that stabilizes debt ratio	9.4	15.2	12.7			20.5	39.0	41.5	40.5	26.6	6.5		-0.8	4.6	
Key macroeconomic assumptions															
Real GDP growth (in percent)	4.9	-0.3	1.9	2.6	1.7	3.6	4.7	4.8	5.0	19.8	19.9	9.6	2.5	3.0	4.4
GDP deflator in US dollar terms (change in percent)	3.6	2.9	4.3	3.5	16.4	2.1	0.8	-0.1	0.0	1.0	1.1	0.8	0.9	1.4	1.3
Effective interest rate (percent) 5/	1.9	0.9	1.1	1.4	0.3	1.3	1.2	1.1	1.1	1.6	1.6	1.3	1.4	1.4	1.4
Growth of exports of G&S (US dollar terms, in percent)	32.0	-22.1	13.6	7.6	14.4	12.9	11.1	3.4	5.3	71.3	50.6	25.8	0.9	-6.7	4.9
Growth of imports of G&S (US dollar terms, in percent)	19.6	-21.2	26.2	8.5	14.4	14.3	68.1	10.3	3.7	12.3	9.1	19.6	1.5	-4.5	3.6
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	45.0	45.0	45.0	45.0	39.4	39.4	43.1	34.1	34.1	35.5
Government revenues (excluding grants, in percent of GDP)	15.6	16.2	15.3			17.7	18.8	19.5	19.8	20.1	19.2		18.5	23.0	19.7
Aid flows (in Billions of US dollars) 7/	0.0	0.0	0.0			0.2	0.3	0.3	0.3	0.3	0.3		0.2	0.0	
o/w Grants	0.0	0.0	0.0			0.2	0.2	0.2	0.2	0.1	0.1		0.0	0.0	
o/w Concessional loans	...	...	...			0.1	0.1	0.1	0.1	0.1	0.2		0.1	0.0	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			4.0	3.9	3.7	3.8	2.9	2.7		0.9	0.1	0.7
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			84.2	82.1	81.7	81.7	67.8	59.5		44.5	38.9	44.5
Memorandum items:															
Nominal GDP (Billions of US dollars)	4.5	4.6	4.9			5.2	5.5	5.8	6.0	7.3	8.9		13.7	20.3	
Nominal dollar GDP growth	8.7	2.6	6.3			5.7	5.5	4.7	5.0	21.0	21.2	10.5	3.5	4.5	5.7
PV of PPG external debt (in Billions of US dollars)			2.4			2.0	2.0	2.0	2.0	1.9	2.0		2.2	1.8	
(PVt-PVt-1)/GDPt-1 (in percent)						-8.3	-0.3	-0.4	0.0	-0.7	0.5	-1.5	0.6	-0.6	0.0
Gross workers' remittances (Billions of US dollars)	…	…	…			…	…	…	…	…	…		…	…	
PV of PPG external debt (in percent of GDP + remittances)	...	...	54.4			41.3	38.0	35.7	33.5	27.0	22.7		16.4	9.2	
PV of PPG external debt (in percent of exports + remittances)	...	...	192.0			136.6	119.3	113.4	106.2	60.5	40.9		25.1	19.5	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	2.5			13.7	8.1	8.2	7.0	6.9	4.2		1.8	2.4	

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 1b.Guinea: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2011-2031
(In percent)

	Projections																
	2011	2012	2013	2014	2015	2016	**2021**	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
PV of debt-to GDP ratio																	
Baseline	41	38	36	34	27	23	**16**	16	16	15	15	14	13	12	11	10	9
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2011-2031 1/	41	36	33	31	34	36	**35**	35	34	33	32	30	29	27	26	24	23
A2. New public sector loans on less favorable terms in 2011-2031 2	41	37	35	34	28	25	**21**	21	21	21	20	20	19	18	17	17	16
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	41	38	37	35	28	24	**17**	17	17	16	16	15	14	13	12	11	10
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	41	40	43	41	33	28	**20**	20	19	19	18	17	16	15	13	12	11
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	41	42	46	43	35	29	**21**	21	21	20	19	18	17	16	14	13	12
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	41	59	81	79	66	56	**40**	38	37	35	33	31	29	27	25	23	20
B5. Combination of B1-B4 using one-half standard deviation shocks	41	65	97	95	79	67	**48**	46	44	42	40	37	35	32	30	27	25
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	41	52	49	47	38	32	**23**	23	22	21	21	19	18	17	16	14	13
PV of debt-to-exports ratio																	
Baseline	137	119	113	106	61	41	**25**	26	26	26	25	24	23	22	21	19	19
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2011-2031 1/	137	114	105	98	76	65	**53**	54	54	54	54	52	51	49	48	46	49
A2. New public sector loans on less favorable terms in 2011-2031 2	137	116	112	108	63	44	**32**	33	34	35	35	34	34	33	32	31	33
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	137	114	109	104	59	40	**25**	25	25	25	25	23	23	21	20	19	19
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	137	149	180	171	99	67	**41**	41	41	41	40	38	37	35	33	31	31
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	137	114	109	104	59	40	**25**	25	25	25	25	23	23	21	20	19	19
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	137	186	258	250	147	100	**61**	60	59	58	56	53	51	48	46	43	43
B5. Combination of B1-B4 using one-half standard deviation shocks	137	208	301	291	172	117	**71**	70	69	68	66	62	59	56	53	50	51
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	137	114	109	104	59	40	**25**	25	25	25	25	23	23	21	20	19	19
PV of debt-to-revenue ratio																	
Baseline	234	202	183	169	135	118	**89**	87	83	79	74	69	64	58	52	47	40
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2011-2031 1/	234	193	170	155	168	190	**189**	183	177	168	159	149	140	130	121	111	100
A2. New public sector loans on less favorable terms in 2011-2031 2	234	196	182	172	141	129	**112**	112	110	107	103	98	93	87	81	76	68
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	234	200	190	177	142	125	**94**	91	88	83	78	73	67	61	55	49	42
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	234	211	220	206	166	147	**110**	106	101	96	90	83	76	69	63	56	48
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	234	224	234	219	174	154	**115**	112	108	103	96	90	82	75	68	60	52
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	234	315	417	397	327	291	**215**	204	192	179	166	153	140	128	115	103	89
B5. Combination of B1-B4 using one-half standard deviation shocks	234	345	500	476	393	349	**259**	245	231	216	200	184	169	153	138	124	107
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	234	275	252	235	187	165	**124**	121	116	110	104	96	88	81	73	65	55

Table 1b.Guinea: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2011-2031 (continued)

(In percent)

								Debt service-to-exports ratio									
Baseline	14	8	8	7	7	4	**1.8495**	1.8481	1.9416	2.0394	2.1466	2.1546	2.2284	2.2501	2.2346	2.2165	2.4367
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2011-2031 1/	14	8	8	7	8	5	**3**	3	3	4	4	4	4	4	4	4	4
A2. New public sector loans on less favorable terms in 2011-2031 2	14	8	8	7	7	4	**2**	2	2	3	3	3	3	3	3	3	3
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	14	8	8	7	7	4	**2**	2	2	2	2	2	2	2	2	2	2
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	14	10	11	10	9	6	**3**	3	3	3	3	3	4	4	4	3	4
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	14	8	8	7	7	4	**2**	2	2	2	2	2	2	2	2	2	2
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	14	8	10	10	9	5	**4**	4	5	5	5	5	5	5	5	5	5
B5. Combination of B1-B4 using one-half standard deviation shocks	14	9	11	11	10	6	**5**	5	5	5	5	5	5	5	5	5	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	14	8	8	7	7	4	**2**	2	2	2	2	2	2	2	2	2	2
								Debt service-to-revenue ratio									
Baseline	24	14	13	11	15	12	**7**	6	6	6	6	6	6	6	6	5	5
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2011-2031 1/	24	14	13	11	17	16	**10**	10	11	11	11	11	11	10	10	9	9
A2. New public sector loans on less favorable terms in 2011-2031 2	24	14	13	11	16	12	**8**	8	8	8	8	8	8	8	8	7	7
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	24	14	14	12	16	13	**7**	7	7	7	7	7	7	6	6	6	5
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	24	14	14	12	16	13	**8**	8	8	8	8	7	7	7	7	6	6
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	24	16	18	15	20	16	**9**	8	8	8	8	8	8	8	7	7	7
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	24	14	15	15	19	15	**16**	15	15	14	14	13	13	12	12	11	10
B5. Combination of B1-B4 using one-half standard deviation shocks	24	15	18	18	22	18	**19**	18	18	17	17	16	15	15	14	13	12
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	24	20	19	16	22	17	**9**	9	9	9	9	9	9	8	8	8	7
Memorandum item:																	
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	34	34	34	34	34	34	**34**	34	34	34	34	34	34	34	34	34	34

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 2a.Guinea: Public Sector Debt Sustainability Framework, Baseline Scenario, 2008-2031
(In percent of GDP, unless otherwise indicated)

	Actual			Average 5/	Standard Deviation 5/	Estimate						Projections			
	2008	2009	2010			2011	2012	2013	2014	2015	2016	2011-16 Average	2021	2031	2017-31 Average
Public sector debt 1/	90.9	90.3	99.9			69.6	64.0	60.9	58.0	48.4	40.4		27.7	15.6	
o/w foreign-currency denominated	77.5	71.5	70.5			55.8	51.2	47.9	44.9	36.9	31.6		24.3	14.6	
Change in public sector debt	1.0	-0.7	9.7			-30.3	-5.6	-3.2	-2.9	-9.6	-8.0		-0.6	-1.4	
Identified debt-creating flows	1.8	-1.7	11.1			-9.0	0.5	-0.7	-0.5	-7.5	-6.2		-0.4	-2.1	
Primary deficit	-1.3	5.0	12.0	2.4	4.3	1.3	5.2	2.0	2.3	1.7	1.8	2.4	0.2	-1.6	-0.6
Revenue and grants	16.1	16.5	15.7			21.1	22.0	22.5	22.9	22.1	20.7		18.8	23.0	
of which: grants	0.5	0.4	0.4			3.4	3.2	3.0	3.1	2.0	1.5		0.3	0.0	
Primary (noninterest) expenditure	14.8	21.6	27.7			22.4	27.2	24.5	25.2	23.8	22.5		19.0	21.4	
Automatic debt dynamics	3.5	-6.8	-0.8			-10.3	-4.7	-2.7	-2.8	-9.2	-8.0		-0.6	-0.5	
Contribution from interest rate/growth differential	-12.3	-3.4	-14.7			-18.5	-9.0	-6.0	-4.8	-10.7	-9.2		-1.5	-1.1	
of which: contribution from average real interest rate	-8.1	-3.7	-12.9			-15.1	-5.9	-3.1	-1.8	-1.2	-1.2		-0.8	-0.6	
of which: contribution from real GDP growth	-4.2	0.3	-1.7			-3.4	-3.1	-2.9	-2.9	-9.6	-8.0		-0.7	-0.5	
Contribution from real exchange rate depreciation	15.8	-3.4	13.8			8.2	4.2	3.3	2.0	1.5	1.2		...	...	
Other identified debt-creating flows	-0.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	-0.3	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)	0.0	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	-0.8	1.1	-1.5			-21.3	-6.1	-2.5	-2.4	-2.1	-1.8		-0.2	0.7	
Other Sustainability Indicators															
PV of public sector debt	...	...	83.8			55.1	50.8	48.6	46.6	38.5	31.5		19.8	10.2	
o/w foreign-currency denominated	...	...	54.4			41.3	38.0	35.7	33.5	27.0	22.7		16.4	9.2	
o/w external	...	...	54.4			41.3	38.0	35.7	33.5	27.0	22.7		16.4	9.2	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	1.3	7.1	14.0			6.9	9.1	5.9	5.8	5.9	4.8		1.9	-0.4	
PV of public sector debt-to-revenue and grants ratio (in percent)	…	…	534.1			261.1	230.9	216.1	203.2	174.3	152.3		105.5	44.5	
PV of public sector debt-to-revenue ratio (in percent)	…	…	547.3			311.5	269.9	249.5	234.7	191.9	164.2		107.4	44.5	
o/w external 3/	…	…	355.2			233.7	201.7	183.2	168.8	134.6	118.4		88.9	39.9	
Debt service-to-revenue and grants ratio (in percent) 4/	16.4	12.6	12.8			26.8	17.8	17.3	15.3	19.1	14.6		8.9	5.3	
Debt service-to-revenue ratio (in percent) 4/	16.9	12.9	13.2			32.0	20.8	20.0	17.7	21.0	15.7		9.0	5.3	
Primary deficit that stabilizes the debt-to-GDP ratio	-2.4	5.7	2.3			31.6	10.8	5.2	5.1	11.3	9.8		0.8	-0.2	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	4.9	-0.3	1.9	2.6	1.7	3.6	4.7	4.8	5.0	19.8	19.9	9.6	2.5	3.0	4.4
Average nominal interest rate on forex debt (in percent)	1.9	0.9	1.1	1.4	0.3	1.3	1.2	1.1	1.1	1.6	1.6	1.3	1.4	1.4	1.4
Average real interest rate on domestic debt (in percent)	-0.8	4.6	-9.7	-1.2	7.6	-14.2	-4.3	-0.2	1.6	1.9	-1.1	-2.7	-0.2	1.0	0.1
Real exchange rate depreciation (in percent, + indicates depreciation)	23.8	-4.6	23.5	15.2	27.5	14.4	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	14.1	6.8	20.2	15.4	11.3	21.0	12.3	7.9	5.8	5.4	5.2	9.6	4.8	5.3	5.2
Growth of real primary spending (deflated by GDP deflator, in percent)	0.3	0.5	0.3	0.1	0.2	-0.2	0.3	-0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
Grant element of new external borrowing (in percent)	...	...	...	…	…	45.0	45.0	45.0	45.0	39.4	39.4	43.1	34.1	34.1	...

Sources: Country authorities; and staff estimates and projections.
1/ Public sector refers to general government. This analysis uses net.
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 2b.Guinea: Sensitivity Analysis for Key Indicators of Public Debt 2011-2031

	Projections							
	2011	2012	2013	2014	2015	2016	2021	2031
PV of Debt-to-GDP Ratio								
Baseline	55	51	49	47	39	31	20	10
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	55	50	49	48	46	44	41	51
A2. Primary balance is unchanged from 2011	55	48	45	43	35	28	21	26
A3. Permanently lower GDP growth 1/	55	51	49	47	40	33	23	20
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	55	53	54	53	45	38	29	27
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	55	52	53	51	42	34	22	12
B3. Combination of B1-B2 using one half standard deviation shocks	55	52	53	51	43	36	27	23
B4. One-time 30 percent real depreciation in 2012	55	70	67	64	52	43	27	18
B5. 10 percent of GDP increase in other debt-creating flows in 2012	55	58	56	53	44	36	23	13
PV of Debt-to-Revenue Ratio 2/								
Baseline	261	231	216	203	174	152	106	44
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	261	225	215	207	205	206	217	224
A2. Primary balance is unchanged from 2011	261	217	201	186	158	136	110	112
A3. Permanently lower GDP growth 1/	261	232	218	206	178	158	120	88
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	261	240	237	228	201	181	152	119
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	261	236	236	222	190	166	117	52
B3. Combination of B1-B2 using one half standard deviation shocks	261	233	232	222	195	174	141	102
B4. One-time 30 percent real depreciation in 2012	261	317	296	278	237	206	142	76
B5. 10 percent of GDP increase in other debt-creating flows in 2012	261	265	248	232	199	174	124	57
Debt Service-to-Revenue Ratio 2/								
Baseline	27	18	17	15	19	15	9	5
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	27	18	17	14	23	20	19	21
A2. Primary balance is unchanged from 2011	27	18	17	12	18	13	10	10
A3. Permanently lower GDP growth 1/	27	18	17	16	19	15	10	9
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	27	18	19	17	22	17	12	11
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	27	18	18	17	23	16	9	6
B3. Combination of B1-B2 using one half standard deviation shocks	27	18	18	16	22	17	12	10
B4. One-time 30 percent real depreciation in 2012	27	21	23	21	27	21	14	10
B5. 10 percent of GDP increase in other debt-creating flows in 2012	27	18	19	24	21	16	10	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.