

INTERNATIONAL DEVELOPMENT ASSOCIATION

INTERNATIONAL MONETARY FUND

**GUINEA**

**Joint Bank-Fund Debt Sustainability Analysis - 2018 Update**

Prepared by the staffs of the International Development Association and  
the International Monetary Fund

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*The results of the update of the Debt Sustainability Analysis (DSA) show that Guinea continues to be at a moderate risk of external debt distress.<sup>1,2</sup> All external debt burden indicators under the baseline scenario lie below their policy-dependent thresholds and debt dynamics have improved compared to the 2017 DSA, given higher-than-anticipated growth during 2016–17. Stress tests suggest that debt vulnerabilities owing to accumulation of external debt related to financing of infrastructure projects will increase if adverse shocks materialize, though remaining more contained than in the 2017 DSA. Under most extreme stress tests,<sup>3</sup> all solvency and liquidity indicators except one breach their thresholds and for prolonged periods. The inclusion of domestic debt does not significantly change the conclusion of the external DSA. A prudent external borrowing strategy aimed at maximizing the concessionality of new debt, limiting non-concessional loans in line with programmed amounts, and strengthening debt management will be key to preserving medium-term debt sustainability.*

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<sup>1</sup> The DSA was prepared jointly by the World Bank and the IMF, in collaboration with the Guinean authorities. It updates the DSA analysis contained in the Request for a Three-Year Arrangement Under the Extended Credit Facility Arrangement (December 11, 2017, No. 17/387).

<sup>2</sup> The three-year average rating for Guinea in the Country Policy and Institutional Assessment (CPIA) is 3.09, which classifies Guinea as a weak policy performer in the LIC-DSA Framework.

<sup>3</sup> A combination of shocks to growth, exports, the GDP deflators, and net non-debt creating flows.

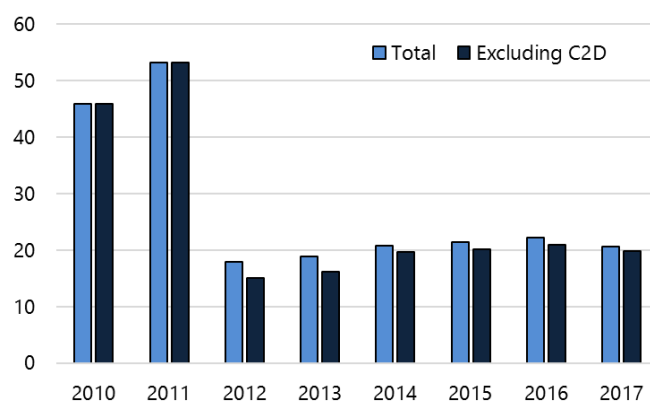
## BACKGROUND

**1. Guinea’s external public debt declined slightly in 2017, after having increased gradually since 2012.** Since Guinea reached the completion point of the HIPC initiative in 2012, external borrowing has been used to finance infrastructure investment in the energy and transport sectors, notably the construction of the Kaleta hydroelectric dam (US\$335 million or 3 percent of 2017 GDP) and the rehabilitation of the electric transmission networks. Total public and publicly guaranteed (PPG) external debt stood at US\$2 billion (19.6 percent of GDP) in 2017, slightly declining in percent of GDP from 21 percent in 2016 (Table 1)<sup>4</sup>.

Approximately 54 percent of this stock is due to official bilateral creditors, mostly to Non-Paris Club creditors, while 42 percent is owed to multilateral creditors. At end-2017, Guinea had

outstanding external debt arrears of US\$150.1 million (1.7 percent of GDP). These arrears pre-date the completion of the HIPC and are owed to non-Paris club official bilateral (60 percent) and commercial creditors (40 percent). The authorities continue to make best efforts to discuss debt relief and normalize these arrears with the creditors, with the aim of reaching an agreement on repayment at the earliest. Creditors have so far not requested payment of these arrears.<sup>5</sup>

**Figure 1. Guinea: Stock of External Public and Publicly Guaranteed Debt, 1 2010–17 (Percent of GDP)**



Sources: Guinean authorities; and IMF Staff calculations.

<sup>1</sup> Starting in 2014, external and domestic PPG debt includes guarantees issued by the Guinean Central Bank (BCRG) to local and foreign banks to provide commercial loans to private sector operators to pre-finance the execution of public works. Notably, a guarantee issued to an external creditor in foreign currency, increased the stock of public and publicly-guaranteed external debt by US\$72 million in 2014.

<sup>4</sup> In this DSA, the definition of PPG external debt excludes French claims under C2D debt-for-development swaps, which were cancelled in the context of the HIPC debt relief. The C2D mechanism implies a payment of the debt service to the creditor from Guinea, which is later returned to the government in the form of grants to finance development projects. See EBS/15/4, Sup. 2, 01/28, 2015 and Country Report No. 15/39 for a detailed discussion.

<sup>5</sup> Domestic arrears built up in the early 2000s as social and political unrest contributed to a deterioration of public financial management. In addition, arrears increased sharply in 2011 after the newly formed government froze many procurement contracts that had been committed outside of standard procedures under the military and transition government of 2009–10.

**Table 1. Guinea: Structure of External Public and Publicly Guaranteed Debt**  
(Nominal values)

	<b>end-2016</b>		<b>end-2017</b>	
	USD (millions)	USD (millions)	Percent of Total	Percent of GDP
<b>Total</b>	<b>1822.1</b>	<b>2026.9</b>	<b>100.0</b>	<b>19.6</b>
Total incl. C2D	1934.4	2118.4	104.5	20.5
<b>Multilateral creditors</b>	<b>778.7</b>	<b>869.5</b>	<b>42.9</b>	<b>8.4</b>
IMF	241.3	277.2	13.7	2.7
World Bank	219.8	240.4	11.9	2.3
AfDB Group	98.9	122.1	6.0	1.2
IsDB	106.1	112.9	5.6	1.1
EU	0.0	0.0	0.0	0.0
Other Multilateral creditors	112.5	116.9	5.8	1.1
<b>Official Bilateral Creditors</b>	<b>984.4</b>	<b>1095.8</b>	<b>54.1</b>	<b>10.6</b>
Paris Club (excl. C2D)	27.7	43.2	2.1	0.4
Non-Paris Club	809.3	879.3	43.4	8.5
Arab Funds	147.4	173.3	8.6	1.7
<b>Commercial Creditors</b>	<b>58.9</b>	<b>61.6</b>	<b>3.0</b>	<b>0.6</b>
<b>Memo</b>				
Arrears	147.4	150.1	7.4	1.5

Sources : Guinean authorities; and IMF Staff calculations.

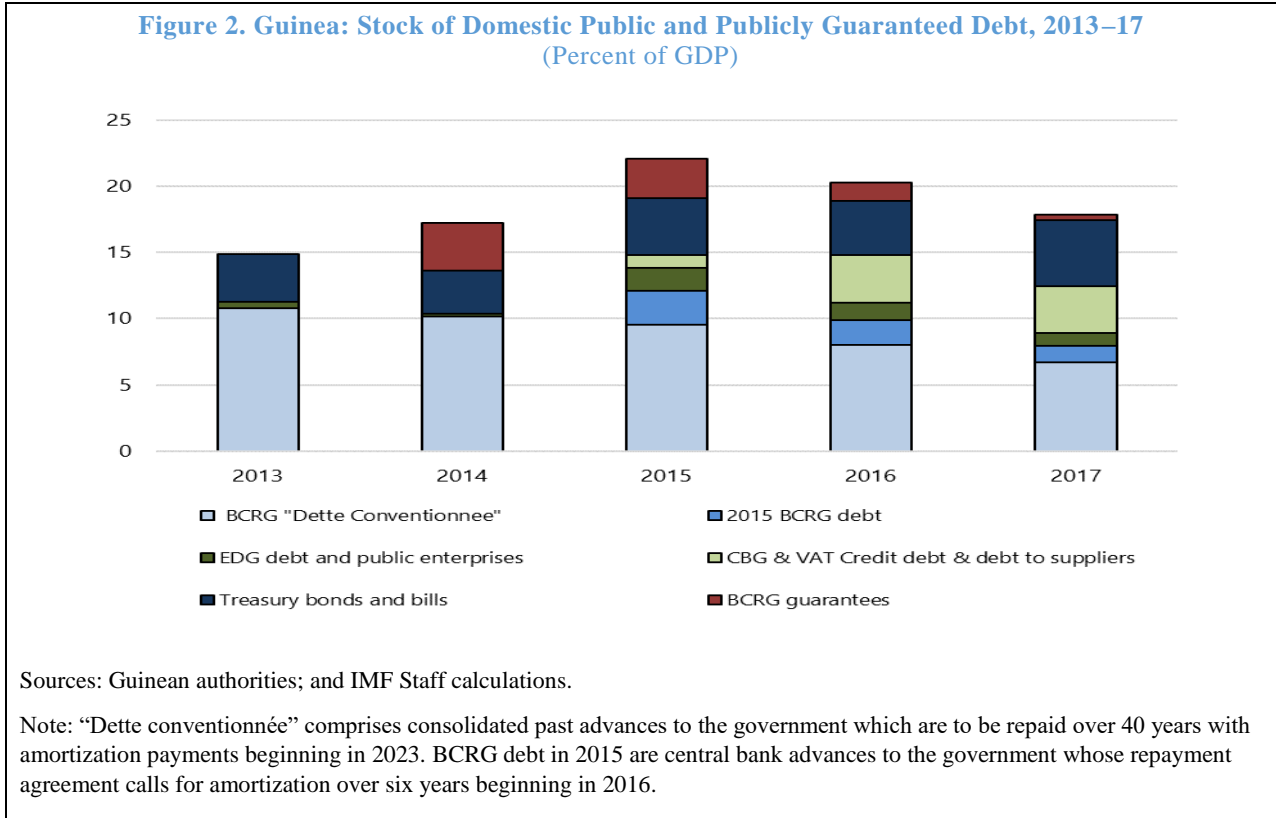
Notes: Arrears at end-2017 are due to Non-Paris Club official bilateral creditors (US\$88.5 million) and commercial creditors (US\$61.6 million). The Guinean authorities have started discussions with creditors in order to reach a resolution on the normalization of these arrears.

**2. Domestic debt declined further in 2017, as settlement of central bank debt and guarantees continued** (Figure 2). PPG domestic debt declined to 17.8 percent of GDP at end-2017 from 19.4 percent of GDP in 2016. On the one hand, the government accumulated additional domestic arrears of 1 percent of GDP in 2017 (the overall stock of domestic arrears is estimated at 4.4 percent of GDP at end-2017), of which 0.5 percent of GDP were repaid in first quarter of 2018.<sup>6</sup> On the other hand, further settlements reduced to 0.4 percent of GDP at end-2017 the debt related to the guarantees issued by the central bank during 2014-15.<sup>7</sup> In addition, part of the outstanding government debt towards the BCRG accumulated in 2015 was repaid in an amount equivalent to 0.3 percent of GDP. In addition to debt related to the 2014–15 central bank guarantees and to 2015 central bank advances to the government, Guinea continued to hold US\$678 million (6.7 percent of 2017 GDP) in “dette conventionnée”, which is debt related to

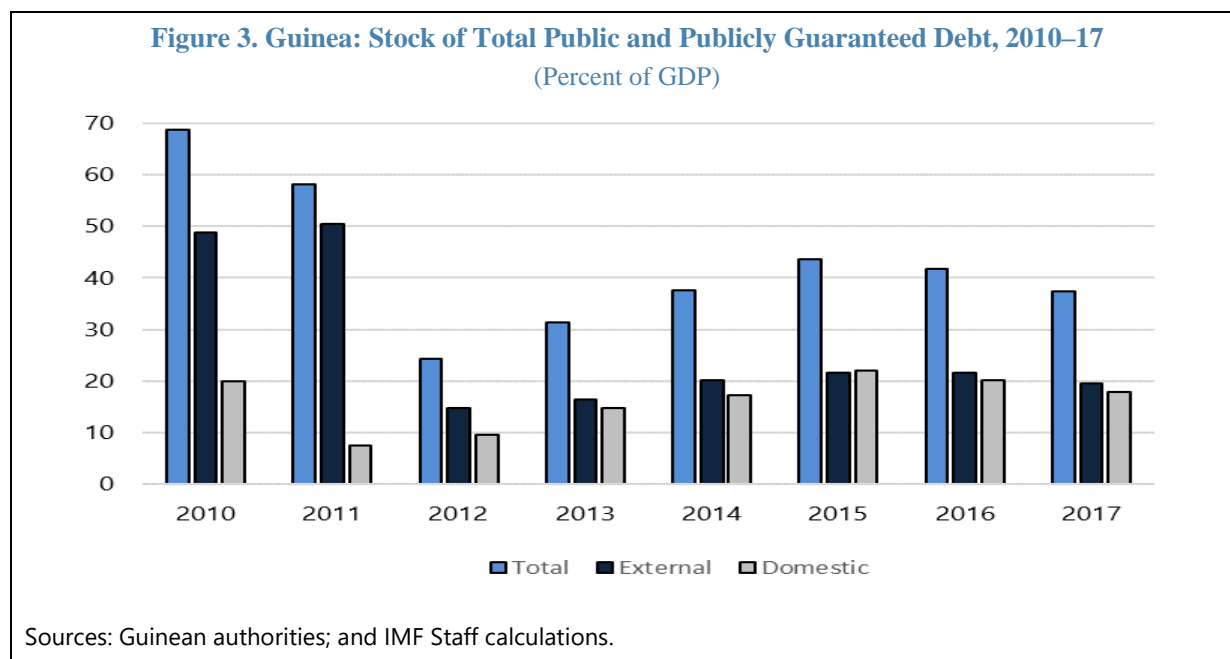
<sup>6</sup> Domestic arrears built up in the early 2000s as social and political unrest contributed to a deterioration of public financial management. In addition, arrears increased sharply in 2011 after the newly formed government froze many procurement contracts that had been committed outside of standard procedures under the military and transition government of 2009–10. In July 2016 the authorities completed an audit of the outstanding stock of central government arrears over 1982-2013, which led to the inclusion of an additional US\$0.2 billion (2.9 percent of GDP) in arrears, owed mainly to domestic suppliers and for VAT credit refunds, in domestic debt.

<sup>7</sup> In 2014 and 2015, the central bank had issued US\$870 million (9.6 percent of 2017 GDP) worth of guarantees to commercial banks to provide loans to private companies to pre-finance the execution of public investment projects. Most of the guarantees were domestic apart from US\$72 million owed to a foreign bank. Owing to restructuring in 2015 and settlements, those guarantees were gradually reduced to reach 1.4 percent of GDP at end-2016.

consolidated central bank advances accumulated prior to 2013, scheduled to be repaid over 40 years starting in 2023.



**3. The stock of overall public debt increased slightly in 2017 but declined as a share of GDP on the back of strong growth** (Figure 3). Total public debt amounted to US\$3.8 billion (37.4 percent of GDP) at end-2017 compared with US\$3.6 billion (41.8 percent of GDP) in 2016. The external debt stock reached US\$2.0 billion, compared with US\$1.9 billion in 2016, due to new disbursements of previously signed loans with bilateral creditors. The domestic debt stock increased by US\$0.7 billion, mainly owing to an increase in treasury bond issuance and accumulation of arrears.



#### UNDERLYING ASSUMPTIONS

4. Key assumptions are consistent with the macroeconomic framework outlined in the Staff Report for the First Review under a Three-Year Extended Credit Facility<sup>8</sup> (Table 2); changes to the assumptions in relation to the 2017 LIC-DSA are as follows:

- **Real GDP growth** was revised upwards to 10.5 percent (from 6.6 percent) in 2016 and to 8.2 percent (from 6.7 percent) in 2017, which led to a significant upward revision of nominal GDP. The growth momentum is expected to continue with real GDP growth reaching 5.8 percent in 2018 and averaging about 6 percent over the medium term, driven by strong performance in mining, construction, and scaled-up investments in infrastructure (Table 2). Over the long run (2022–38), growth is projected to remain near 5 percent, reflecting the increased productive capacity of the economy and its further diversification. Risks to the growth outlook are balanced, with downside potential stemming from socio-political tensions and delays in projects and reform implementation and with upside potential arising from faster-than-expected mining production capacity coming on stream.
- **Inflation** is expected to remain moderate at around 8.2 percent in 2018 and decline slightly over the medium term, reflecting a prudent monetary policy stance.
- **Fiscal balance.** The basic fiscal surplus is projected to improve from 0.8 percent of GDP in 2018 to an average of 1 percent of GDP during 2019–23, reflecting revenue mobilization efforts and the containment of non-priority current expenditure, including the gradual

<sup>8</sup> Guinea—First Review Under a Three-Year Extended Credit Facility and Request for Waivers of Nonobservance of Performance Criteria.

*phasing out of electricity subsidies.<sup>9</sup> Additional tax revenues of about 2.5 percent of GDP are expected to be mobilized over 2018–20 supported by a targeted tax policy and administration reform and stronger mining revenues. In parallel, capital expenditures are expected to rise with the scale up in public infrastructure investment under the authorities National Economic and Social Development Plan (PDNES) from 6.5 percent of GDP in 2018 to 7.8 percent in 2023. Grants are expected at 1 percent in 2018 and at about 0.6 percent of GDP over the period 2019–21, also reflecting the mobilization of donors’ support following the 2017 Consultative Group for Guinea. The primary fiscal balance is expected to register a deficit of 1.1 percent of GDP in 2018 and an average deficit of 0.7 percent over 2019–23.*

- ***The current account*** is expected to record a deficit at 21 percent of GDP in 2018 and to average 14 percent of GDP over 2019–23, reflecting high FDI-financed imports for mining and public infrastructure projects, including the Souapiti dam. These investments will boost exports over the longer term, resulting in a gradual narrowing of the current account deficit.
- ***External financing mix and terms.*** In addition to the borrowing to finance the construction of the Souapiti dam (US\$1.2 billion, 11 percent of 2017 GDP) to be signed in 2018, this DSA also incorporates the authorities’ expected borrowing of an additional US\$650 million in non-concessional loans to be disbursed over 2018–21, from China Eximbank (Table 3).<sup>10</sup> These loans will finance priority infrastructure projects such as the rehabilitation of the RN1 national road and the Conakry urban road network, the construction of an electrical interconnection line, and the rehabilitation of a university. Out of this envelope, US\$434 million in non-concessional loans are expected to be signed in 2018 to finance rehabilitation of the RN1 national road and the Conakry urban road network. New external borrowing is expected to pick up significantly in the near term from 1.0 percent of GDP in 2017 to 9.0 percent of GDP in 2018, to average 4.9 percent of GDP over 2019–21, and settle around a long-run average of about 2 percent of GDP, reflecting the expected impact of the Souapiti loan and the programmed US\$650 million debt for priority infrastructure projects in the short to medium term. Due to the mostly non-concessional nature of borrowing in the near term, the average grant element of new borrowing would decline from around 31 percent in 2018 to 29.1 in 2019, and further decline to an average grant element of 24 percent in the long run, reflecting that use of non-concessional financing is expected to gradually increase over time.
- ***Domestic borrowing.*** Net government domestic financing is expected to be negative throughout 2018–27, as the government is expected to gradually repay past borrowings from the BCRG, domestic arrears accumulated during 2017, and the validated 1982–2013 arrears to the private sector in line with their strategy for clearance of these arrears

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<sup>9</sup> The basic fiscal balance is calculated as government revenue excluding grants minus expenditures, excluding interest payments on external debt and externally financed capital expenditure.

<sup>10</sup> The grant element of these loans is expected to be approximately 25.9 percent.

*approved in December 2017. This will be supported by revenue mobilization and containing current non-priority spending. Net domestic borrowing is expected to turn positive and increase gradually from 2028 onwards.*

**Table 2. Guinea: LIC DSA Macroeconomic Assumptions**  
(Percent of GDP, unless otherwise indicated)

	Previous DSA						Current DSA					
	2016	2017	2018	2023	2028	2038	2016	2017	2018	2023	2028	2038
Nominal GDP (\$ Million)	8476.3	9182.7	9855.4	14160.2	19901.3	39324.0	8694.6	10250.5	11486.0	16729.0	23529.4	46449.8
Real GDP (percentage change)	6.6	6.7	5.8	5.0	5.0	5.0	10.5	8.2	5.8	5.0	5.0	5.0
<b>Fiscal Accounts</b>												
Revenues and grants	16.0	16.8	18.1	18.9	19.0	...	15.6	15.2	15.6	17.8	17.4	17.5
Public Sector Expenditure	16.4	17.4	20.8	21.5	20.7	...	16.0	17.5	18.0	19.4	18.8	18.7
of which: Capital expenditure and net lending	4.9	4.9	7.8	9.1	8.3	...	4.8	5.9	6.5	7.8	7.4	7.3
Primary Fiscal Balance	1.0	0.9	-1.2	-1.8	-1.1	...	0.9	-1.2	-1.1	-0.6	-0.3	-0.1
New external borrowing	...	3.4	9.9	3.5	2.9	...	0.0	0.0	9.0	2.7	2.3	1.8
Grant elements of new external borrowing	...	32.2	29.5	29.1	25.6	...	0.0	0.0	31.1	28.4	25.8	20.5
<b>Balance of Payments</b>												
Exports of goods and services	29.2	34.9	38.7	41.3	39.5	...	28.4	39.9	35.9	35.0	33.3	31.9
Imports of goods and services	60.7	58.7	56.4	46.6	41.4	...	59.1	47.4	52.2	45.6	48.8	45.4
Current account (including transfers)	-32.2	-24.7	-21.6	-11.3	-9.4	...	-31.4	-7.1	-21.2	-11.0	-6.5	-1.9
Foreign direct investment	18.8	16.2	12.7	9.1	4.9	...	18.3	12.7	13.5	8.7	5.2	1.6

Sources: Guinean authorities; and IMF and World Bank staff estimates.

**Table 3. Guinea: Non-concessional Loans to Finance Priority Infrastructure Projects<sup>1</sup>**

Project	Amount (USD million)
Rehabilitation of RN1 (national road)	275
Rehabilitation of road system in Conakry	159
Construction of electricity transmission line (Lisan-Fomi-Kankan)	150
University Rehabilitation	63

Source: Guinean authorities.

<sup>1</sup> Indicative values on a contracted basis, expected during 2017–20. This excludes the US\$1.2 billion non-concessional Souapiti loan which is being finalized.

## DEBT SUSTAINABILITY ANALYSIS

### A. External Debt

**5. Under the baseline scenario, all external debt ratios remain below their policy dependent thresholds, indicating that Guinea’s debt dynamics are sustainable** (Table 4 and Figure 4). The PV of debt to GDP is expected to remain below the policy-dependent threshold, peaking at 21.9 percent in 2020 (significantly below the peak of 26.2 percent of GDP in the 2017 DSA) and then decline. Furthermore, liquidity ratios (debt service-to-exports and debt service-to-revenues) are also expected to remain well-below policy dependent thresholds. Debt service to export and to revenue ratios have slightly declined compared with the 2017 DSA. The growth rate for accumulation of external debt will average 3.3 percent (year-on-year) over 2018–22, slightly lower than in the 2017 DSA (average 3.8 percent year-on-year growth rate over the same period).



**6. Guinea remains at moderate risk of debt distress while vulnerabilities have eased.** Under the historical scenario and most extreme stress tests, nearly all indicators breach their thresholds and for prolonged periods (Figure 4).<sup>11</sup> However, the magnitude of these breaches is smaller than in the 2017 DSA suggesting that stronger growth would help to partially mitigate risk of debt distress. Under the historical scenario, all indicators breach their thresholds for prolonged periods. Under the bound tests, all indicators except one breach their thresholds under the most extreme stress tests, and most indicators breach their thresholds under several bound tests. However, these tests are based on historical growth and export averages, which reflect exceptionally adverse economic conditions for Guinea, including the Ebola crisis and commodity price shocks during 2014–15 and earlier periods of civil unrest. Under two more plausible country-specific scenarios: i) a weak policy implementation scenario; and ii) less prudent phasing of investment projects scenario with frontloaded disbursements of the anticipated US\$650 non-concessional loans, all indicators remain below their policy dependent thresholds but slightly closer than under the baseline scenarios (Figure 5).<sup>12</sup>

**Table 4. Guinea: Policy Dependent Thresholds and Results**

	<b>Policy- dependent Threshold</b>	<b>Guinea (2018)</b>	<b>Guinea (Max 2018-38)</b>
PV of debt to GDP ratio	30	17.8	21.9
PV of debt-to-exports ratio	100	49.6	65.4
PV of debt-to-revenue ratio	200	122.7	138.0
Debt service-to-exports ratio	15	2.3	6.0
Debt service-to-revenue ratio	18	5.6	10.4

Source: IMF Staff calculations.

## **B. Total Public Debt**

**7. Debt indicators remain below the benchmark under the baseline scenario when adding public and publicly guaranteed domestic debt** (Figure 6). Public debt dynamics have improved compared to the 2017 DSA and vulnerabilities have reduced. The PV of total public debt-to-GDP ratio peaks in 2019 at 32 percent of GDP (compared to its peak of 36 percent of GDP in the 2017 DSA) and then declines gradually over the long term. This dynamic mirrors the path of the PPG external debt stock, which increases in the short run due to the high rate of debt accumulation. The PV of total debt-to-GDP ratio would briefly exceed the benchmark in the medium term only under the extreme shock, while in the 2017 DSA it was also exceeding it under the historical scenario.<sup>13</sup> Delays in repaying domestic arrears or debt owed to the BCRG, or data revisions after new audits of domestic debt and arrears could worsen the dynamics of total debt.

<sup>11</sup> The most extreme shocks are either an exports shock or a combination shock, consistent with the 2017 DSA.

<sup>12</sup> The weak policy scenario assumes real GDP is 1 percentage point below the baseline over 2019–38, reflecting slower reform implementation, and the basic fiscal balance is 0.5 percent of GDP in 2019–20, reflecting slower revenue collection. The frontloaded disbursement scenario assumes the US\$650 million in non-concessional loans are disbursed over a three rather than five-year period and more rapid disbursement of already signed concessional loans.

<sup>13</sup> In this case, the most extreme shock is a 10 percent GDP increase in other debt creating flows in 2019.

## CONCLUSION

**8. Guinea remains at moderate risk of external debt distress.** External debt is expected to increase significantly in the short run due to borrowing for financing critical infrastructure needs. The authorities' strategy of carefully phasing investment projects and spreading out loan disbursements, and commitment to containing non-concessional external borrowing within the amounts specified under the objectives of the ECF arrangement,<sup>14</sup> will be key to ensuring that debt remains sustainable and does not exceed a moderate risk of external debt distress. Notably, indicators have improved under the baseline, alternative, and extreme shock scenarios compared to the 2017 DSA, pointing to reduced vulnerabilities, on the back of higher than anticipated growth.

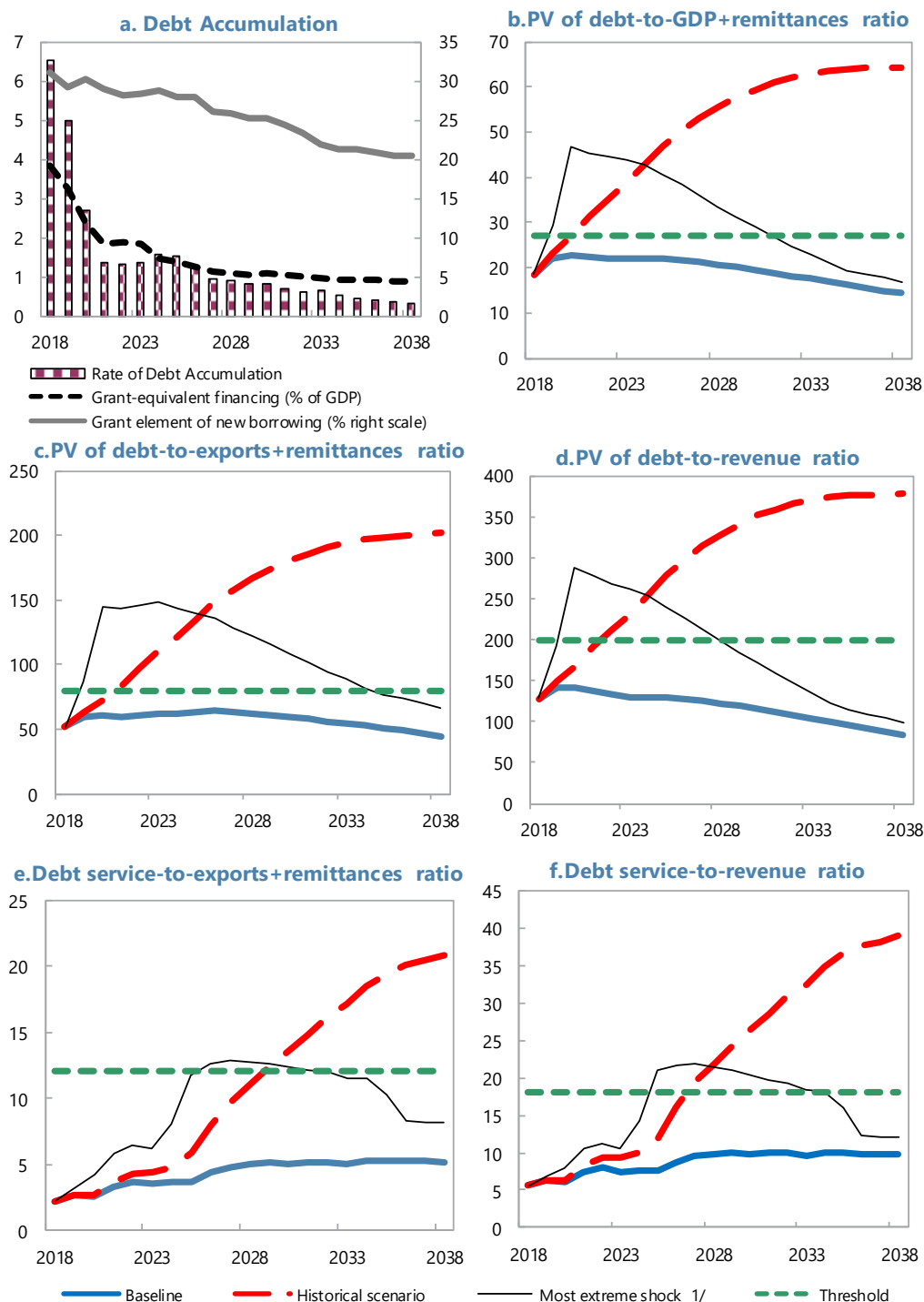
**9. Maximizing concessional debt and strengthening debt and public investment management will be essential to preserving debt sustainability in the context of large financing needs.** In this regard, the authorities' commitment to implement a prudent borrowing strategy that aims to maximize concessionality and limit non-concessional borrowing to a maximum of US\$650 million (excluding Souapiti) during 2018–21 is key to ensuring that the risk of debt distress does not exceed a moderate level. Ongoing efforts to strengthen the debt management framework, with the support of technical assistance from the IMF, World Bank, and other development partners, will be essential to containing debt vulnerabilities. More specifically, updating the medium-term debt management strategy, further improvement in bond issuance practices, enhancing capacity to analyze debt sustainability, improving public debt statistics, and strengthening procedures for managing domestic debt will be helpful. The authorities plan to set-up a Committee to oversee debt management by end May 2018 and will update the medium-term debt management strategy (MTDS) by end-2018 with the support of IMF technical assistance. A statistical bulletin on public debt has been published in May 2018 and will continue to be updated on a quarterly basis. The authorities have also published for the first time a calendar of bond issuance on the Ministry of Economy and Finance website in April 2018. The World Bank also conducted a Debt Management Performance Assessment (DeMPA) in May 2018, the findings of which will be key to identify areas for improvement and to establish an action plan to strengthen debt management, with IMF and World Bank technical assistance. Further improving coordination among ministries and the central bank will be important to ensure that new borrowing is in line with the national strategy. Strengthening public investment management, including with the implementation of a platform for integrated public investment management and the support of the Public Investment Management Assessment (PIMA) with IMF technical assistance, will enhance the transparency and efficiency of the investment plan.

**10. The authorities broadly agree with the conclusions of the DSA.** They underscored their commitment to maintaining a sustainable level of debt that does not exceed a moderate risk of debt distress. They also concurred with the importance of maximizing concessional borrowing where possible but noted financing under these terms is not available in the scale needed to finance their large infrastructure needs. The authorities agree that addressing domestic debt is a priority and are committed to implement their strategy to gradually clear domestic arrears toward the private sector. They also remain committed to strengthen debt management by closely working with development partners.

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<sup>14</sup> Under the ECF arrangement, non-concessional borrowing is capped at US\$650 million, excluding the use of IMF resources, debts classified as international reserve liabilities of the BCRG and the non-concessional loan to finance the Souapiti dam project.

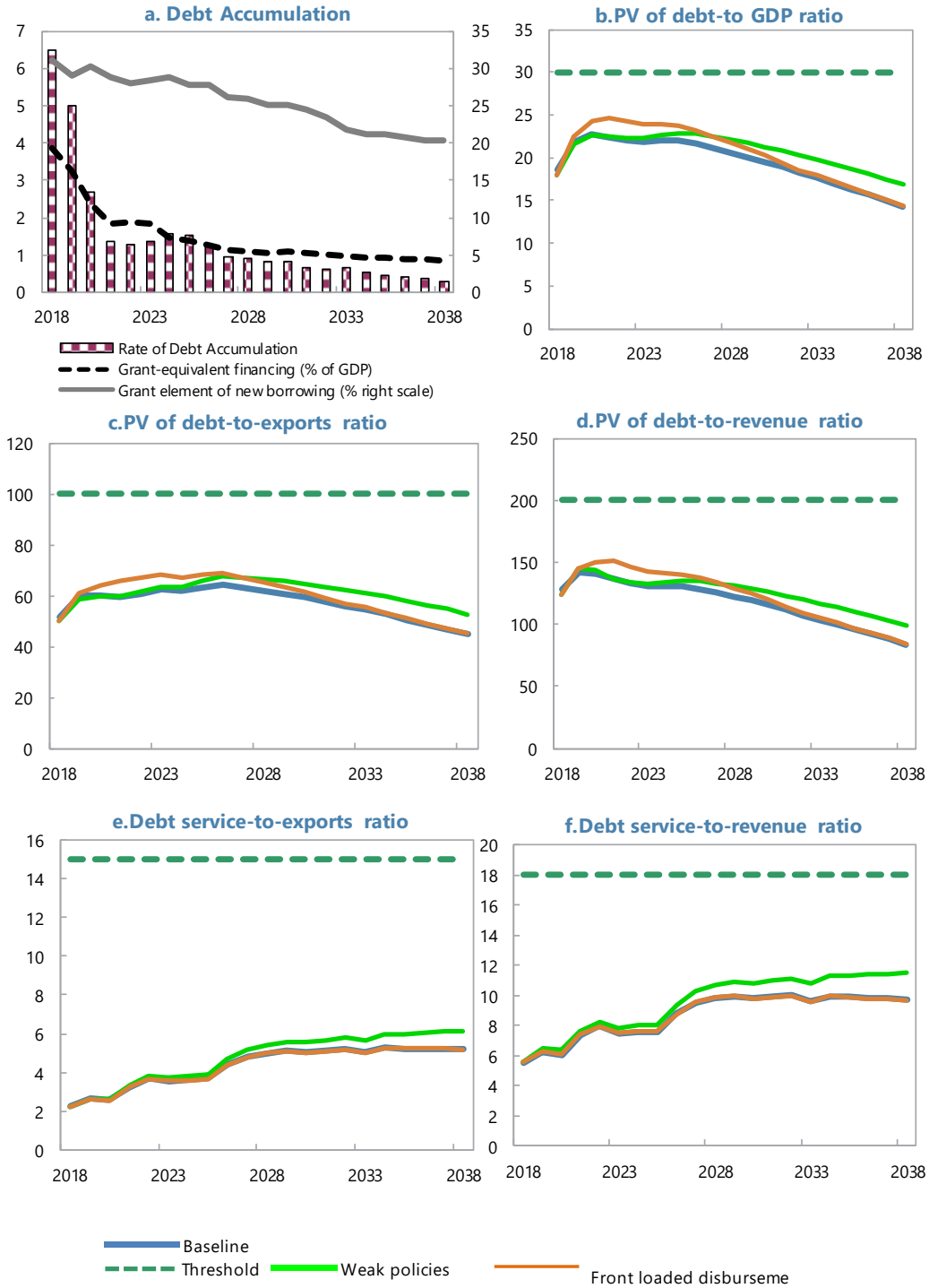
**Figure 4. Guinea: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2018–381/**



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2028. In figure b. it corresponds to a Combination shock; in c. to a Exports shock; in d. to a Combination shock; in e. to a Exports shock and in figure f. to a Combination shock

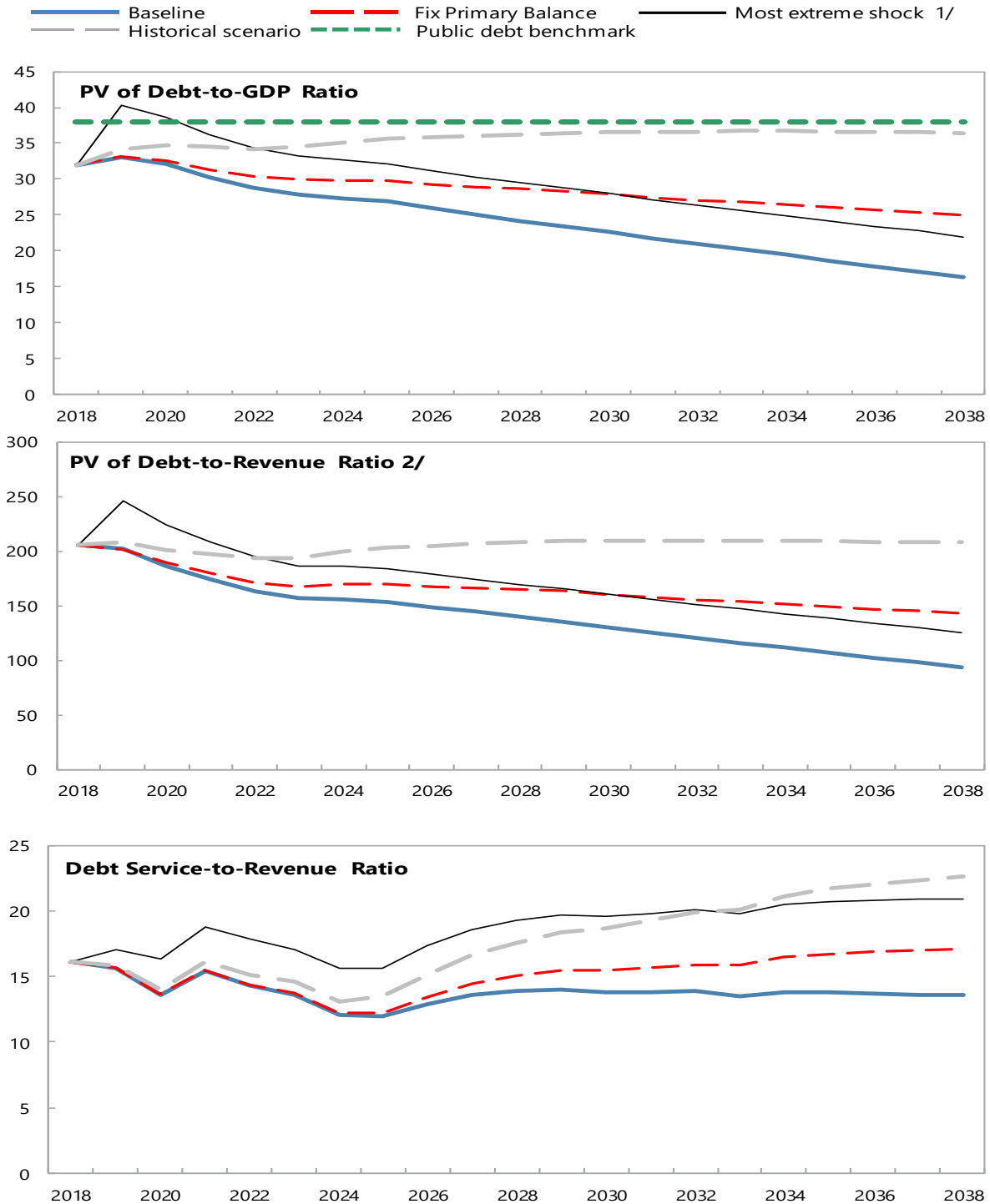
**Figure 5. Guinea: Indicators of Public and Publicly Guaranteed External Debt Under Country-Specific Alternative Scenarios, 2018–381/**



Sources: Country authorities; and staff estimates and projections.

1/ The weak policies scenario assumes real GDP growth of 1 percentage point below the baseline over 2019-2038 and a lower overall primary fiscal balance of 0.5 percent of GDP in 2019-2020 to reflect slower reform implementation and revenue collection. The front loaded disbursement scenario assumes the \$650 million in non-concessional loans are disbursed over a three rather than five-year period along with a more rapid disbursement profile for already signed concessional loans.

Figure 6. Guinea: Indicators of Public Debt Under Alternative Scenarios, 2018–381/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2028.

2/ Revenues are defined inclusive of grants.

**Table 5. Guinea: External Debt Sustainability Framework, Baseline Scenario, 2015–381/  
(Percent of GDP, unless otherwise indicated)**

	Actual			Historical Average	Standard Deviation	Projections							2018-2023			2024-2031
	2015	2016	2017			2018	2019	2020	2021	2022	2023	Average	2028	2038	Average	
<b>External debt (nominal) 1/</b>	<b>21.6</b>	<b>21.6</b>	<b>19.6</b>			<b>26.9</b>	<b>31.7</b>	<b>33.0</b>	<b>32.4</b>	<b>31.9</b>	<b>31.6</b>			<b>28.8</b>	<b>19.8</b>	
<i>of which: public and publicly guaranteed (PPG)</i>	21.6	21.6	19.6			26.9	31.7	33.0	32.4	31.9	31.6			28.8	19.8	
Change in external debt	1.3	0.0	-2.0			7.3	4.8	1.3	-0.6	-0.5	-0.4			-0.9	-0.9	
Identified net debt-creating flows	9.5	13.3	-8.9			6.7	5.0	1.7	0.1	0.6	0.8			-0.1	-0.6	
<b>Non-interest current account deficit</b>	<b>12.3</b>	<b>31.1</b>	<b>6.9</b>	<b>13.1</b>	<b>8.1</b>	<b>20.9</b>	<b>15.7</b>	<b>16.8</b>	<b>12.8</b>	<b>12.3</b>	<b>10.6</b>			<b>6.1</b>	<b>1.6</b>	<b>4.8</b>
Deficit in balance of goods and services	9.5	30.7	7.6			16.4	9.0	10.9	8.0	7.1	5.7			2.6	-0.1	
Exports	21.1	28.4	39.9			35.9	36.5	37.9	37.4	36.1	35.0			33.3	31.9	
Imports	30.7	59.1	47.4			52.2	45.6	48.8	45.4	43.2	40.7			35.9	31.9	
Net current transfers (negative = inflow)	0.0	-1.1	-0.9	-3.0	2.1	-0.6	-0.8	-0.9	-1.1	-1.1	-1.3			-1.3	-1.2	-1.2
<i>of which: official</i>	-0.2	-0.7	-0.2			-0.2	-0.3	-0.3	-0.4	-0.5	-0.5			-0.3	-0.3	
Other current account flows (negative = net inflow)	2.8	1.5	0.3			5.1	7.5	6.8	5.9	6.4	6.2			4.7	2.8	
<b>Net FDI (negative = inflow)</b>	<b>-3.0</b>	<b>-18.3</b>	<b>-12.7</b>	<b>-6.1</b>	<b>5.7</b>	<b>-13.5</b>	<b>-9.6</b>	<b>-13.8</b>	<b>-11.5</b>	<b>-10.6</b>	<b>-8.7</b>			<b>-5.2</b>	<b>-1.6</b>	<b>-4.1</b>
<b>Endogenous debt dynamics 2/</b>	<b>0.2</b>	<b>0.6</b>	<b>-3.1</b>			<b>-0.7</b>	<b>-1.1</b>	<b>-1.3</b>	<b>-1.2</b>	<b>-1.1</b>	<b>-1.0</b>			<b>-0.9</b>	<b>-0.6</b>	
Contribution from nominal interest rate	0.2	0.3	0.2			0.3	0.4	0.4	0.6	0.5	0.5			0.4	0.3	
Contribution from real GDP growth	-0.8	-2.3	-1.5			-1.0	-1.5	-1.8	-1.8	-1.6	-1.5			-1.4	-1.0	
Contribution from price and exchange rate changes	0.8	2.5	-1.8			...	...	...	...	...	...			...	...	
<b>Residual (3-4) 3/</b>	<b>-8.2</b>	<b>-13.3</b>	<b>6.9</b>			<b>0.6</b>	<b>-0.2</b>	<b>-0.5</b>	<b>-0.6</b>	<b>-1.1</b>	<b>-1.2</b>			<b>-0.8</b>	<b>-0.2</b>	
<i>of which: exceptional financing</i>	-0.5	0.0	-0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	
PV of external debt 4/	...	...	13.6			18.6	21.9	22.8	22.4	22.0	21.9			20.6	14.3	
In percent of exports	...	...	34.1			51.7	59.9	60.2	59.8	61.0	62.5			62.0	44.7	
<b>PV of PPG external debt</b>	<b>...</b>	<b>...</b>	<b>13.6</b>			<b>18.6</b>	<b>21.9</b>	<b>22.8</b>	<b>22.4</b>	<b>22.0</b>	<b>21.9</b>			<b>20.6</b>	<b>14.3</b>	
In percent of exports	...	...	34.1			51.7	59.9	60.2	59.8	61.0	62.5			62.0	44.7	
In percent of government revenues	...	...	98.0			127.9	142.2	140.8	136.5	132.6	130.3			122.3	83.7	
<b>Debt service-to-exports ratio (in percent)</b>	<b>4.9</b>	<b>3.6</b>	<b>1.1</b>			<b>2.2</b>	<b>2.6</b>	<b>2.6</b>	<b>3.2</b>	<b>3.7</b>	<b>3.6</b>			<b>5.0</b>	<b>5.2</b>	
<b>PPG debt service-to-exports ratio (in percent)</b>	<b>4.9</b>	<b>3.6</b>	<b>1.1</b>			<b>2.2</b>	<b>2.6</b>	<b>2.6</b>	<b>3.2</b>	<b>3.7</b>	<b>3.6</b>			<b>5.0</b>	<b>5.2</b>	
<b>PPG debt service-to-revenue ratio (in percent)</b>	<b>7.6</b>	<b>7.1</b>	<b>3.2</b>			<b>5.5</b>	<b>6.2</b>	<b>6.0</b>	<b>7.4</b>	<b>8.0</b>	<b>7.5</b>			<b>9.8</b>	<b>9.7</b>	
Total gross financing need (Billions of U.S. dollars)	0.9	1.2	-0.5			0.9	0.9	0.5	0.4	0.5	0.5			0.6	0.8	
Non-interest current account deficit that stabilizes debt ratio	11.0	31.1	8.9			13.5	10.9	15.6	13.3	12.9	11.0			6.9	2.4	
<b>Key macroeconomic assumptions</b>																
Real GDP growth (in percent)	3.8	10.5	8.2	4.9	3.2	5.8	5.9	6.0	6.0	5.3	5.0			5.7	5.0	5.0
GDP deflator in US dollar terms (change in percent)	-3.7	-10.5	8.9	0.6	9.6	5.9	2.1	2.0	2.0	2.0	2.0			2.7	2.0	2.0
Effective interest rate (percent) 5/	0.8	1.5	1.1	1.2	0.3	1.9	1.6	1.5	1.9	1.5	1.5			1.7	1.5	1.6
Growth of exports of G&S (US dollar terms, in percent)	-5.1	32.9	65.3	15.4	25.4	0.8	10.1	12.2	6.7	3.8	3.8			6.3	6.3	7.1
Growth of imports of G&S (US dollar terms, in percent)	-7.1	90.8	-5.4	16.4	34.1	23.3	-5.6	15.9	0.5	2.4	0.8			6.2	4.9	6.3
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	31.1	29.1	30.3	28.9	28.0	28.4			29.3	25.8	20.5
Government revenues (excluding grants, in percent of GDP)	13.7	14.6	13.8			14.5	15.4	16.2	16.4	16.6	16.8			16.9	17.1	16.9
Aid flows (in Billions of US dollars) 7/	0.1	0.1	0.1			0.4	0.4	0.4	0.4	0.4	0.5			0.4	0.6	
<i>of which: Grants</i>	0.1	0.1	0.1			0.1	0.1	0.1	0.2	0.2	0.2			0.1	0.2	
<i>of which: Concessional loans</i>	0.0	0.0	0.0			0.3	0.2	0.2	0.2	0.3	0.3			0.3	0.4	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			3.8	3.2	2.4	1.8	1.9	1.8			1.1	0.9	1.1
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			38.4	37.9	44.2	48.8	48.5	48.5			39.3	37.5	39.2
<b>Memorandum items:</b>																
Nominal GDP (Billions of US dollars)	8.8	8.7	10.3			11.5	12.4	13.4	14.5	15.6	16.7			23.5	46.4	
Nominal dollar GDP growth	0.0	-1.1	17.9			12.1	8.2	8.2	8.1	7.4	7.1			8.5	7.0	7.0
PV of PPG external debt (in Billions of US dollars)	...	...	1.4			2.1	2.6	3.0	3.2	3.4	3.6			4.7	6.4	
(PVt-PVt-1)/GDPt-1 (in percent)	...	...	...			6.5	5.0	2.7	1.4	1.3	1.4			3.0	0.9	0.3
Gross workers' remittances (Billions of US dollars)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	
PV of PPG external debt (in percent of GDP + remittances)	...	...	13.6			18.6	21.9	22.8	22.4	22.0	21.9			20.6	14.3	
PV of PPG external debt (in percent of exports + remittances)	...	...	34.1			51.7	59.9	60.2	59.8	61.0	62.5			62.0	44.7	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	1.1			2.2	2.6	2.6	3.2	3.7	3.6			5.0	5.2	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as  $[r - g - \rho(1+g)] / (1+g+\rho+g)$  times previous period debt ratio, with  $r$  = nominal interest rate;  $g$  = real GDP growth rate, and  $\rho$  = 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. Projections also includes price and exchange rate changes.

It includes donors' financing expected to be mobilized during the program (US\$ 40 million in 2017 by the World Bank and Euro 55 million over 2017-19 by the European Union).

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 6. Guinea: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2018–38**  
(Percent)

	Projections							2038
	2018	2019	2020	2021	2022	2023	2028	
<b>PV of debt-to GDP ratio</b>								
<b>Baseline</b>	19	22	23	22	22	22	<b>21</b>	14
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2018-2038 1/	19	23	27	31	35	39	<b>56</b>	64
A2. New public sector loans on less favorable terms in 2018-2038 2/	19	23	25	25	25	25	<b>26</b>	21
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	19	22	24	24	23	23	<b>22</b>	15
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	19	26	36	35	34	34	<b>27</b>	14
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	19	24	28	27	27	27	<b>25</b>	17
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	19	28	38	37	36	36	<b>27</b>	14
B5. Combination of B1-B4 using one-half standard deviation shocks	19	30	47	45	45	44	<b>33</b>	17
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	19	30	31	31	30	30	<b>28</b>	20
<b>PV of debt-to-exports ratio</b>								
<b>Baseline</b>	52	60	60	60	61	62	<b>62</b>	45
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2018-2038 1/	52	63	72	84	97	111	<b>167</b>	202
A2. New public sector loans on less favorable terms in 2018-2038 2/	52	63	65	66	69	72	<b>77</b>	67
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	52	58	58	58	59	61	<b>60</b>	43
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	52	87	145	143	145	148	<b>122</b>	67
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	52	58	58	58	59	61	<b>60</b>	43
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	52	76	100	99	100	102	<b>82</b>	44
B5. Combination of B1-B4 using one-half standard deviation shocks	52	79	120	119	121	123	<b>98</b>	52
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	52	58	58	58	59	61	<b>60</b>	43
<b>PV of debt-to-revenue ratio</b>								
<b>Baseline</b>	128	142	141	137	133	130	<b>122</b>	84
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2018-2038 1/	128	149	168	191	211	231	<b>329</b>	377
A2. New public sector loans on less favorable terms in 2018-2038 2/	128	149	152	151	150	150	<b>153</b>	126
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	128	144	149	144	140	137	<b>129</b>	88
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	128	169	222	214	207	202	<b>157</b>	82
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	128	155	172	167	162	159	<b>149</b>	102
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	128	180	234	225	217	212	<b>162</b>	82
B5. Combination of B1-B4 using one-half standard deviation shocks	128	192	288	277	268	261	<b>198</b>	99
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	128	196	194	188	182	179	<b>168</b>	115

**Table 6. Guinea: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2018–38 (concluded)  
(Percent)**

	Projections							
	2018	2019	2020	2021	2022	2023	2028	2038
<b>Debt service-to-exports ratio</b>								
<b>Baseline</b>	2	3	3	3	4	4	<b>5</b>	5
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2018-2038 1/	2	3	3	4	4	4	<b>11</b>	21
A2. New public sector loans on less favorable terms in 2018-2038 2/	2	3	3	3	4	4	<b>7</b>	8
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	2	3	3	3	4	4	<b>5</b>	5
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	2	3	4	6	6	6	<b>13</b>	8
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	2	3	3	3	4	4	<b>5</b>	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	2	3	3	4	4	4	<b>9</b>	5
B5. Combination of B1-B4 using one-half standard deviation shocks	2	3	3	5	5	5	<b>11</b>	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	2	3	3	3	4	4	<b>5</b>	5
<b>Debt service-to-revenue ratio</b>								
<b>Baseline</b>	6	6	6	7	8	7	<b>10</b>	10
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2018-2038 1/	6	6	6	8	9	9	<b>22</b>	39
A2. New public sector loans on less favorable terms in 2018-2038 2/	6	6	6	8	8	8	<b>13</b>	14
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2019-2020	6	7	7	8	9	8	<b>11</b>	11
B2. Export value growth at historical average minus one standard deviation in 2019-2020 3/	6	6	6	9	9	9	<b>17</b>	10
B3. US dollar GDP deflator at historical average minus one standard deviation in 2019-2020	6	7	8	9	10	9	<b>12</b>	12
B4. Net non-debt creating flows at historical average minus one standard deviation in 2019-2020 4/	6	6	7	9	9	9	<b>17</b>	10
B5. Combination of B1-B4 using one-half standard deviation shocks	6	7	8	11	11	10	<b>22</b>	12
B6. One-time 30 percent nominal depreciation relative to the baseline in 2019 5/	6	9	9	10	11	11	<b>14</b>	14
<i>Memorandum item:</i>								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	29	29	29	29	29	29	<b>29</b>	29

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 7. Guinea: Public Sector Sustainability Framework, Baseline Scenario, 2014–38**  
(Percent of GDP, unless otherwise indicated)

	Actual				Average <sup>5/</sup>	Standard Deviation <sup>5/</sup>	Estimate					Projections				
	2014	2015	2016	2017			2018	2019	2020	2021	2022	2023	2018-23 Average	2028	2038	2024-38 Average
<b>Public sector debt 1/</b>	37.5	43.6	41.8	37.4			40.3	43.0	42.4	40.3	38.6	37.6		32.4	21.9	
<i>of which: foreign-currency denominated</i>	23.1	23.3	22.5	19.6			26.9	31.7	33.0	32.4	31.9	31.6		28.8	19.8	
Change in public sector debt	6.2	6.1	-1.8	-4.4			2.9	2.7	-0.6	-2.0	-1.7	-1.1		-1.2	-1.0	
Identified debt-creating flows	2.0	6.0	-3.3	-5.0			-1.2	-1.4	-2.1	-2.0	-1.6	-1.4		-1.0	-0.5	
Primary deficit	2.6	6.2	-0.7	1.4	2.3	3.2	1.2	1.2	0.6	0.4	0.4	0.4	0.7	0.3	0.1	0.3
Revenue and grants	16.7	14.7	15.6	15.2			15.6	16.5	17.3	17.4	17.7	17.8		17.4	17.5	
<i>of which: grants</i>	2.8	1.0	0.9	1.3			1.1	1.1	1.1	1.1	1.1	1.1		0.5	0.5	
Primary (noninterest) expenditure	19.2	20.9	14.9	16.6			16.8	17.7	17.8	17.8	18.1	18.3		17.6	17.7	
Automatic debt dynamics	-0.5	0.8	-2.7	-6.4			-2.5	-2.6	-2.7	-2.4	-2.0	-1.8		-1.3	-0.6	
Contribution from interest rate/growth differential	-1.0	-1.6	-5.7	-5.9			-3.5	-4.0	-4.3	-4.1	-3.7	-3.4		-2.8	-1.7	
<i>of which: contribution from average real interest rate</i>	0.2	-0.2	-1.6	-2.7			-1.5	-1.7	-1.9	-1.7	-1.6	-1.5		-1.3	-0.6	
<i>of which: contribution from real GDP growth</i>	-1.1	-1.4	-4.1	-3.2			-2.1	-2.3	-2.4	-2.4	-2.0	-1.8		-1.6	-1.1	
Contribution from real exchange rate depreciation	0.5	2.3	3.0	-0.5			1.1	1.4	1.6	1.7	1.6	1.6		...	...	
Other identified debt-creating flows	-0.1	-1.0	0.0	0.0			0.0	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	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	0.0	
Debt relief (HIPC and other)	-0.1	-1.0	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	0.0	
Residual, including asset changes	4.2	0.1	1.5	0.6			4.1	4.0	1.5	0.0	0.0	0.3		-0.2	-0.5	
<b>Other Sustainability Indicators</b>																
<b>PV of public sector debt</b>	...	...	...	31.4			32.0	33.1	32.2	30.3	28.8	27.9		24.2	16.4	
<i>of which: foreign-currency denominated</i>	...	...	...	13.6			18.6	21.9	22.8	22.4	22.0	21.9		20.6	14.3	
<i>of which: external</i>	...	...	...	13.6			18.6	21.9	22.8	22.4	22.0	21.9		20.6	14.3	
PV of contingent liabilities (not included in public sector debt)	...	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	52.2	9.9	3.2	4.3			3.7	3.8	2.9	3.1	2.9	2.8		2.7	2.5	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	...	206.7			205.3	201.4	186.3	173.6	162.3	156.2		139.4	93.2	
PV of public sector debt-to-revenue ratio (in percent)	...	...	...	226.8			220.3	215.3	198.8	184.8	173.0	166.1		143.6	95.9	
<i>of which: external 3/</i>	...	...	...	98.0			127.9	142.2	140.8	136.5	132.6	130.3		122.3	83.7	
Debt service-to-revenue and grants ratio (in percent) 4/	298.1	25.3	24.8	19.1			16.1	15.7	13.6	15.4	14.3	13.6		13.9	13.5	
Debt service-to-revenue ratio (in percent) 4/	358.5	27.2	26.3	21.0			17.3	16.7	14.5	16.4	15.2	14.5		14.3	13.9	
Primary deficit that stabilizes the debt-to-GDP ratio		0.1	1.1	5.8			-1.7	-1.4	1.2	2.4	2.1	1.5		1.5	1.1	
<b>Key macroeconomic and fiscal assumptions</b>																
Real GDP growth (in percent)	3.7	3.8	10.5	8.2	4.9	3.2	5.8	5.9	6.0	6.0	5.3	5.0	5.7	5.0	5.0	5.0
Average nominal interest rate on forex debt (in percent)	1.0	0.7	1.4	1.1	1.1	0.3	1.9	1.6	1.5	1.9	1.5	1.5	1.7	1.5	1.7	1.6
Average real interest rate on domestic debt (in percent)	3.0	2.0	-2.4	-5.5	-0.4	5.2	-2.4	-1.6	-1.2	0.6	2.1	3.7	0.2	11.4	26.3	15.9
Real exchange rate depreciation (in percent, + indicates depreciation)	3.2	10.7	15.3	-2.4	8.5	10.9	6.0	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	2.8	2.8	7.1	10.5	8.4	5.3	8.1	8.1	7.9	7.8	7.8	7.8	7.9	8.0	8.0	8.0
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	12.8	-21.3	20.4	1.4	10.6	7.3	11.6	7.0	5.8	7.2	5.7	7.4	5.2	4.5	4.7
Grant element of new external borrowing (in percent)	...	...	...	...	...	...	31.1	29.1	30.3	28.9	28.0	28.4	29.3	25.8	20.5	...

Sources: Country authorities; and staff estimates and projections.

1/ Public debt is defined as the gross central government debt (including the BCRG guarantees).

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 8. Guinea: Sensitivity Analysis for Key Indicators of Public Debt 2018–38**  
(Percent)

	Projections								
	2018	2019	2020	2021	2022	2023	2028	2038	
<b>PV of Debt-to-GDP Ratio</b>									
<b>Baseline</b>	32	33	32	30	29	28	24	16	
<b>A. Alternative scenarios</b>									
A1. Real GDP growth and primary balance are at historical averages	32	34	35	34	34	35	36	36	
A2. Primary balance is unchanged from 2018	32	33	33	31	30	30	29	25	
A3. Permanently lower GDP growth 1/	32	33	33	31	30	30	30	33	
<b>B. Bound tests</b>									
B1. Real GDP growth is at historical average minus one standard deviations in 2019-20:	32	35	36	35	34	34	34	31	
B2. Primary balance is at historical average minus one standard deviations in 2019-202	32	36	38	36	35	34	29	19	
B3. Combination of B1-B2 using one half standard deviation shocks	32	36	38	36	35	35	33	27	
B4. One-time 30 percent real depreciation in 2019	32	40	39	36	34	33	29	22	
B5. 10 percent of GDP increase in other debt-creating flows in 2019	32	40	39	37	35	34	29	19	
<b>PV of Debt-to-Revenue Ratio 2/</b>									
<b>Baseline</b>	205	201	186	174	162	156	139	93	
<b>A. Alternative scenarios</b>									
A1. Real GDP growth and primary balance are at historical averages	205	208	201	197	193	193	208	208	
A2. Primary balance is unchanged from 2018	205	201	189	179	171	168	165	142	
A3. Permanently lower GDP growth 1/	205	203	190	179	170	167	171	186	
<b>B. Bound tests</b>									
B1. Real GDP growth is at historical average minus one standard deviations in 2019-20:	205	212	209	201	193	192	198	179	
B2. Primary balance is at historical average minus one standard deviations in 2019-202	205	219	222	208	195	188	166	108	
B3. Combination of B1-B2 using one half standard deviation shocks	205	217	219	208	198	194	189	154	
B4. One-time 30 percent real depreciation in 2019	205	245	223	208	194	186	170	125	
B5. 10 percent of GDP increase in other debt-creating flows in 2019	205	243	224	210	197	190	167	109	
<b>Debt Service-to-Revenue Ratio 2/</b>									
<b>Baseline</b>	16	16	14	15	14	14	14	14	
<b>A. Alternative scenarios</b>									
A1. Real GDP growth and primary balance are at historical averages	16	16	14	16	15	15	18	23	
A2. Primary balance is unchanged from 2018	16	16	14	15	14	14	15	17	
A3. Permanently lower GDP growth 1/	16	16	14	16	15	14	16	20	
<b>B. Bound tests</b>									
B1. Real GDP growth is at historical average minus one standard deviations in 2019-20:	16	16	15	17	16	15	17	21	
B2. Primary balance is at historical average minus one standard deviations in 2019-202	16	16	14	16	15	14	17	15	
B3. Combination of B1-B2 using one half standard deviation shocks	16	16	14	17	16	15	18	19	
B4. One-time 30 percent real depreciation in 2019	16	17	16	19	18	17	19	21	
B5. 10 percent of GDP increase in other debt-creating flows in 2019	16	16	14	16	15	14	17	15	

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.