INTERNATIONAL MONETARY FUND AND
INTERNATIONAL DEVELOPMENT ASSOCIATION

ISLAMIC REPUBLIC OF MAURITANIA

Debt Sustainability Analysis

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

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This updated joint IMF-World Bank low-income country (LIC) debt sustainability analysis (DSA) continues to show a moderate risk of debt distress for Mauritania.[9] *Under the baseline scenario, debt burden indicators do not exceed their policy-dependent indicative thresholds, except for a minor and not protracted breach of the threshold for the present value (PV) of the debt-to-GDP ratio. The public sector DSA suggests that Mauritania's overall public sector debt remains sustainable over the medium term. The country's vulnerability to fiscal, FDI, exchange rate, and growth shocks highlights the importance of continuing to build fiscal and external buffers, follow a cautious borrowing strategy, and improve debt management. Lack of agreement on debt relief from Kuwait would raise Mauritania's vulnerability to an external shock but would not affect the risk of debt distress, which would remain moderate.*

V. Background and Assumptions

43. **This report follows the DSA prepared in June 2011 for Mauritania's Second Review under the Extended Credit Facility.**[10] This analysis is consistent with the medium-term macroeconomic framework presented in the 2012 Article IV Consultation and Fourth Review under the ECF. Compared to the previous DSA**,** this analysis includes:

- **Better starting position**. Historical averages for key macroeconomic variables (exports of goods and services, current account balance, primary fiscal deficit) in the

[9] The external and the public sector debt sustainability analysis presented in this document is based on the Debt Sustainability Framework for Low-Income Countries (LIC). Data up to 2011 underlying this analysis were provided by donors and the authorities. From 2012 onwards, projections represent staffs and authorities' views.

[10] See staff report for the second review http://www.imf.org/external/pubs/cat/longres.aspx?sk=25060.0

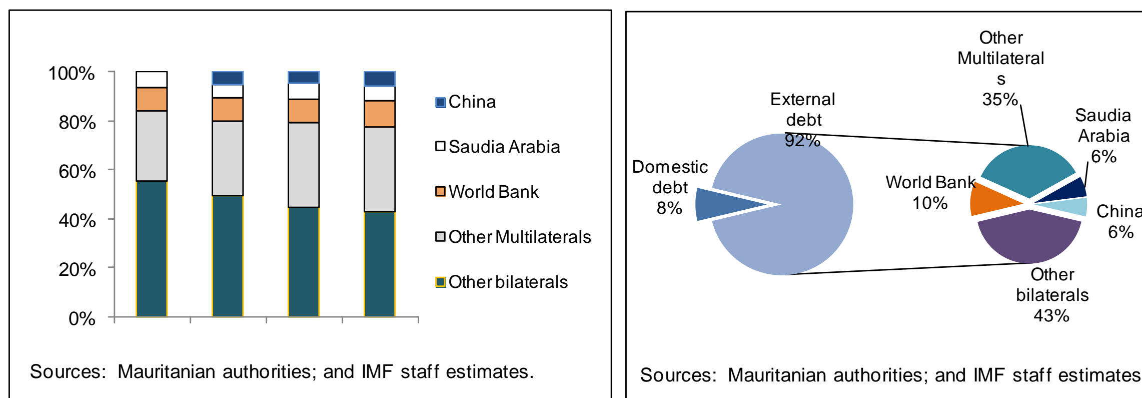
current DSA are slightly better thanks to the contribution of two recent exceptional years (2010 and 2011) characterized by unprecedented high commodity prices, and the authorities' ability to build fiscal and external buffers, which was helped by high dividends from the state-owned iron ore company. This has led to a modified pattern for most debt ratios under both the baseline and alternative scenarios.

- **Updated debt stocks.** The current DSA is based on stock as of end-2011 (Box 1), while the previous one was based on the stock of debt as of end-2009. Amortization and principal payments for 2012 onwards were also updated based on the most recent data.

Box 1. Evolution of External Debt

As of end-2011, total external debt amounted to 90 percent of GDP.[1] Gross public and publicly-guaranteed (PPG) external debt was at about 76.8 percent of GDP, compared with a projection of about 55 percent in the previous DSA, due to delays in resolving a long-standing debt with Kuwait. To date, Mauritania has never accessed the international bond market, and 85 percent of its total external debt is held externally by official multilateral and bilateral lenders. The composition of debt has been relatively stable over time and has shifted slightly toward more multilateral donors.

Figure 1. Evolution and Composition of External Debt and Total Debt in 2011



1/ This includes central government and state-owned enterprises debt (excluding the IMF SDR allocation and the public iron ore company SNIM, which is treated as a private commercially-run company).

- **Revised macroframework** (Box 2). The fiscal position will continue to strengthen as fiscal consolidation efforts—anchored by a nonmineral fiscal balance—persist, and public financial management and debt monitoring improve. The current account deficit will worsen in the next two years due to large one-off operations but will stabilize at a

sustained level over the longer term thanks to the expanding capacity of the mining sector.[11] The overall growth rate for the period 2012–32 remains broadly unchanged although the ongoing expansion of the mining sector and the country's investments in the energy sector are expected to boost growth.

- **Infrastructure projects.** The previous DSA already incorporated the expansion of Mauritania's electricity generation and distribution system. The external borrowing for the electricity project covers 2012–14 and is structured as one nonconcessional and one concessional loan, each for $105 million.[12] The DSA continues to incorporate conservative assumptions regarding the growth dividend from the expansion of the electrical network,[13] and other projects to factor in potential risks associated with delays in implementing those projects and other internal bottlenecks. Resort to concessional borrowing from multilateral and bilateral donors will continue to guide the authorities' debt strategy in the near term—with nonconcessional borrowing remaining the exception. Over the longer run, new borrowing will gradually shift away from concessional financing (Box 2), but the country's debt will remain sustainable, thanks to improved debt management and coherent macroeconomic policies. Private external debt will also increase slightly in the medium term to finance the new airport (staff assumed an additional $200 million in private-sector debt related to this project, of which 40 percent is expected to come in 2012 and 60 percent in 2013) and the modernization of the iron ore company.

- **Debt relief from Kuwait**. The previous DSA scenario assumed that the debt owed to Kuwait will be cancelled in 2011; however, discussions on this issue are still ongoing. The current scenario assumes that full debt relief under HIPC terms will occur in 2012 (about $1 billion). To date, negotiations with Kuwait are at an advanced stage for the portion owed to the central bank of Kuwait (about 17 percent of total). A number of proposals have been made by the Mauritanian government, in line with the most recent letter from the Paris Club, and discussions on various scenarios are still ongoing. Treatment of the debt under the HIPC terms would represent the first best option, but staff estimated the impact of various scenarios on debt sustainability (see paragraph 8).

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[11] Baseline macroframework factors in the positive impact of the ongoing large mining expansion capacity projects (iron ore and gold), which would arrive at completion by 2015 and would boost the country's productive and export capacities. This would somewhat offset the impact of the declining commodity prices projected in the medium term.

[12] The program ceiling on nonconcessional borrowing was raised to allow for this strategic priority project. The project was judged critical to increase electricity supply, was evaluated by a study of the Arab Development Fund, and does not lead to a rise in the risk of debt distress.

[13]The concessional loan has a 35 percent grant element, while the nonconcessional loan has a grant element of 18 percent. The loans are disbursed over the 2012–14 period.

Box 2. Baseline Macroeconomic Assumptions

Real GDP growth: Real GDP growth is projected to be sustained at 5.8 percent per year on average over 2012–17, supported by a rebound in agriculture and strong activity in the mining sector. Significant investment programs will boost production capacity of the national iron ore company, as well as private copper and gold production. Upon completion of these projects, we expect growth to converge to about 4.4 percent per year by 2032 (slightly above the 4 percent historical average). Near-term risks include volatility in commodity prices, a fall in external demand, and unfavorable climate conditions. On the upside, accelerated structural reforms to improve the business environment and higher return on ongoing investment could spur growth outside the traditional extractive industries sector.

Inflation: Prudent monetary and fiscal policies will lead to an inflation rate converging to about 5 percent in 2018 and thereafter.

Current account balance: After widening in 2012 amid falling metal export prices and increased imports associated with the drought and the implementation of major mining and infrastructure projects, the current account deficit is expected to narrow to around 4.7 percent of GDP in 2017. The longer-term current account deficit follows the increase in mining companies' export capacities and is broadly consistent with estimates of the norm (a deficit of about 6 percent of GDP) for Mauritania's current account based on the methodology developed by the IMF's Consultative Group on Exchange Rates (CGER).

Government balances: The framework assumes the following: (a) non-oil revenue remains stable at about 27 percent of non-oil GDP throughout the period; and (b) grants are expected to stabilize at about ½ percent of GDP in the long run. The government's non-oil balance including grants is projected to improve gradually from a deficit of 5.4 percent to a surplus of 0.3 percent of non-oil GDP over the 2012–32 period. The projected primary balance improves from a deficit of 1.8 percent of GDP in 2012 to a surplus of about 0.1 percent of GDP in 2032.

External financing: The baseline scenario assumes that, with the exception of the nonconcessional loan undertaken to finance the electricity generation plant ($105 million), Mauritania will borrow essentially on concessional terms in the medium term. However, it is expected that new borrowing will gradually shift away from concessional financing over the longer term. As a result, the average grant element on new borrowing will decline to 10 percent by 2032.

Domestic debt, mainly treasury bills held by the banking sector and the national iron ore company, stood at just under 6.7 percent of GDP at end- 2011 and is projected to decline in line with the improvement in the fiscal position.

Real interest rates. The real interest rate on new short term domestic debt approaches 4 percent in 2017 and gradually declines thereafter.

1/ The CGER framework assesses the consistency of a country's exchange rate with medium-term fundamentals, based on three complementary methodologies. Two of the three approaches involve estimating an equilibrium current account or "norm".

VI. EXTERNAL DEBT SUSTAINABILITY

44. **The baseline scenario shows that most debt indicators remain well below their policy-dependent thresholds**, **except for a short hiatus where the present value (PV) of the debt-to-GDP ratio is breached.** External debt is projected to decrease significantly over the medium term from an estimated 91 percent of GDP in 2011 to about 67 percent in 2017, assuming the Kuwait debt is cancelled and that borrowing diminishes in line with projected improvements in the fiscal and external positions (DSA Table 1). The stock of total external debt is projected to drop further in the longer term, reaching 26 percent of GDP in 2032. Most of the external debt is public and publicly guaranteed debt. After an initial jump reflecting new large investments, almost all debt burden indicators are declining, and remain below their policy-dependent indicative thresholds throughout the period, except for a marginal and non protracted breach of threshold for the PV of debt-to-GDP ratio between 2012 and 2016 (Figure 1). Debt service ratios, which capture liquidity risks, remain below their indicative thresholds.

45. **Risks to the external debt outlook are broadly balanced**. On the *upside*, continued fiscal discipline and stronger economic growth would further improve the external debt profile. On the *downside*, negative trade shocks, recurrence of natural disasters, and loose fiscal policy would push external debt higher than in Staff projections.

Alternative scenario and stress tests

46. **Mauritania's external debt indicators remain sensitive to historical trends and less favorable lending** (Figure 1, Table 2). Under both scenarios, the PV of debt-to-GDP rises initially 7 percentage points above the threshold, before declining steadily. On the other hand, the PV of debt-to-exports and debt-to-revenue ratios remain below their thresholds throughout the projection period. Moreover, using historical trends—which include two droughts, high energy and food prices, political instability, and one global crisis—may not accurately account for long-run debt dynamics.

47. **Bound tests highlight the country's high vulnerability to non-debt-creating flows and exchange rate shocks.** Stress tests show that a one-standard deviation shock to non-debt-creating flows in 2013–14 represents the most extreme scenario where the NPV debt-to-GDP indicator would rapidly breach the threshold, before declining rapidly to sustainable levels. This contrasts with previous DSAs, which highlighted the dominance of export shocks.[14] Stress tests also show that a one-time 30 percent nominal depreciation relative to

[14] This is explained by a much larger current account deficit in 2013–14 that is in part triggered by mining expansion projects that are self-financed through FDI. Simulating a large contraction in FDI would significantly impact debt, although this result should be nuanced as the scenario does not correct for the fact that those mining-related imports would likely not occur in the absence of FDI.

the baseline increases the PV of debt-to-GDP ratio by 20 percent of GDP, thus causing a breach in the policy-dependent threshold until 2021, before declining significantly. Regarding other debt indicators (the PV of debt-to-exports and the PV of debt-to-revenues ratios), the bound tests do not indicate any threshold breach.

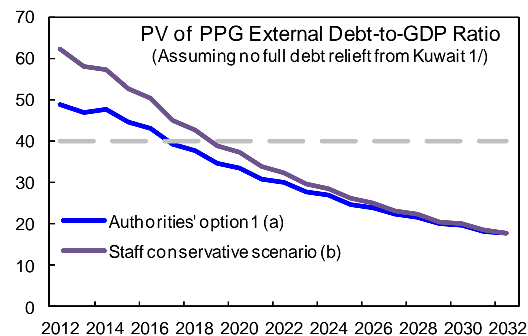
VII. Public Debt Sustainability

Baseline

48. **The public debt outlook mirrors that of external debt because of its predominance.** Public debt is projected to fall from 70 percent of GDP in 2012 to 54 percent of GDP by 2017, and would remain on a declining path over the long term. This represents a marked difference compared to the 2011 DSA update, in which the public sector debt was projected to increase as the fiscal deficit rose. The revised projections therefore allow for an even larger decrease in the public debt ratio after 2020, owing to a relatively stronger primary fiscal balance and sustained economic growth. The PV of public debt is projected to decline continuously to 18.3 percent of GDP in 2032, down from 54.7 percent of GDP in 2012.

Alternative scenario and stress tests

49. **Stress tests highlight some vulnerability to permanently lower growth, fiscal slippages, and large exchange rate shocks.** Under the permanently lower growth scenario,[15] the PV of public debt would reach 44 percent of GDP in 2032, compared with a baseline projection of 18 percent of GDP. The public debt path is also vulnerable to shocks to the primary fiscal balance and exchange rate volatility, which suggests that fiscal consolidation, prudent monetary policy, and appropriate exchange policy are essential for keeping debt sustainable over the medium term. For example, if the primary deficit remains at about 1.4 percent of GDP (as in 2012), the PV of public-debt-to-GDP ratio would almost double to 36 percent of GDP by the end of the projection period. By 2032, the PV of debt-to-GDP ratio remains almost unchanged under historical real GDP and primary balance averages.



1/ (a) Cancellation of 84 percent of the arrears on interest and principal ($ 1 billion) and the rescheduling of the remaining amount over 23 years with a grace period of 6 years and a 0.5% interest rate. (b) Repayment of $ 1 billion over a period of 20 years without a grace period.

50. **The absence of debt relief from Kuwait would not lead to a protracted breach of the applicable threshold indicator.** The current DSA assumes so far a full cancelling of arrears and full

[15] This scenario assumes that real GDP growth is at its baseline level minus one standard deviation.

debt relief provided by the Kuwaiti authorities to Mauritania in 2012 (about $1 billion, nearly 40 percent of Mauritania's outstanding stock of external nominal debt in 2011). Staff's analysis shows that the PV of external PPG debt-to-GDP ratio breaches the policy-dependent threshold briefly (within five or six years in the medium term before returning back under the policy-dependent threshold) under various scenarios.[16]

VIII. CONCLUSION

51. **Staffs consider that Mauritania faces a moderate risk of debt distress.**[17] This reflects the expectation that most thresholds for debt stocks and debt service would be respected under the baseline and stress scenarios. The PV of debt-to-revenue and PV of debt-to-exports ratios would remain well below the policy-dependent thresholds throughout the period, while the PV of debt-to-GDP ratio exhibits a temporary breach in the indicative threshold until 2016.[18] The authorities agreed with this assessment.

52. **Debt dynamics remain subject to risks.** The country's vulnerability to fiscal, FDI, large exchange rate fluctuations, and growth shocks highlights the importance of continuing to build fiscal and external buffers, follow a cautious borrowing strategy and a prudent monetary policy, and improve debt management. On the upside, the ongoing large investment projects, both inside and outside the mining sector, are expected to result in an acceleration of growth, which has not been fully incorporated in the macroeconomic framework.

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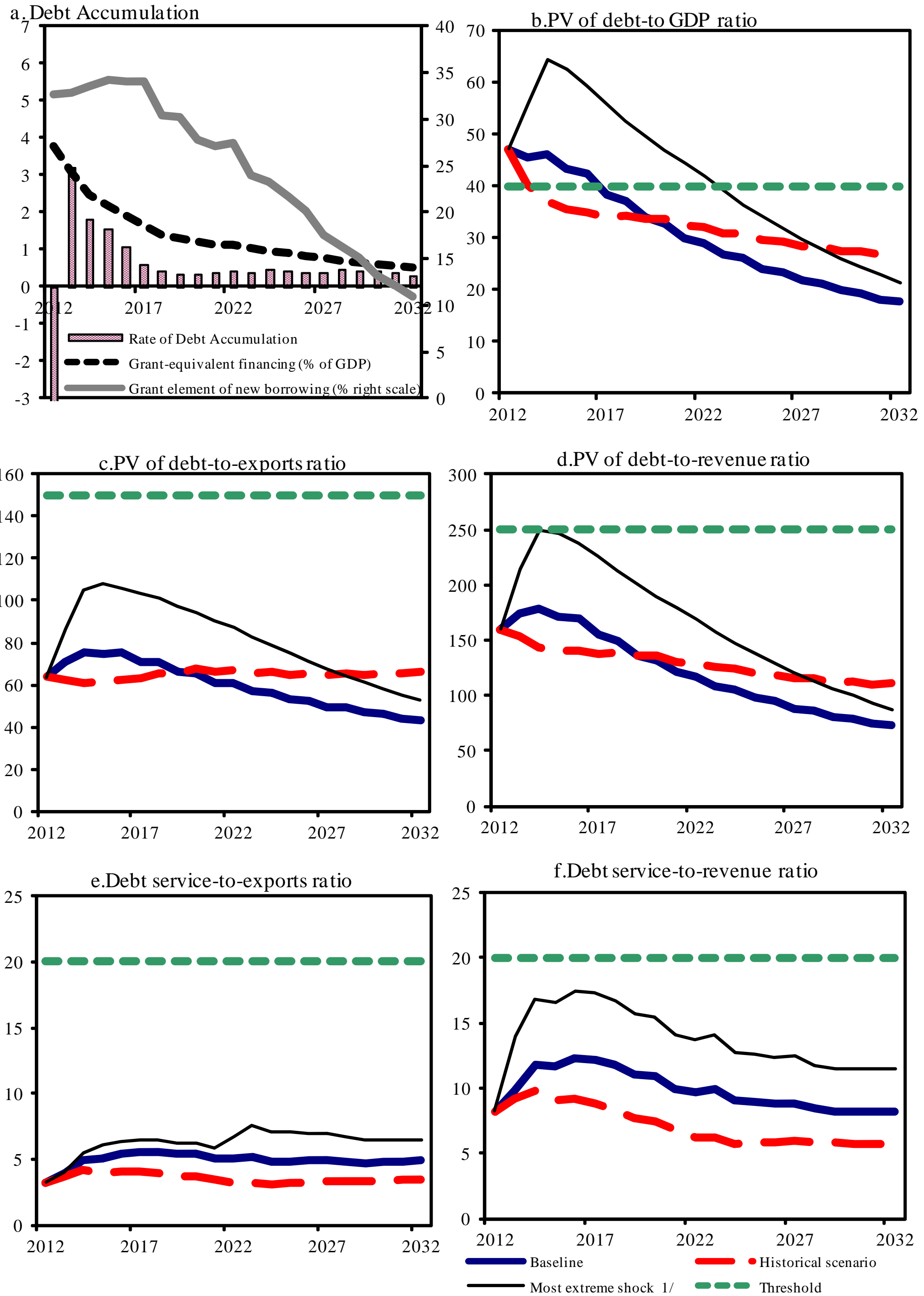
[16] *Scenario 1:* no HIPC but cancellation of 84 percent of the outstanding accumulated arrears on interest rate payments and principal and the rescheduling of the remaining amount over 23 years with a grace period of six years and a 0.5 percent interest rate; *scenario 2:* a repayment of the total amount of outstanding arrears (of about $1 billion) over a period of 20 years.

[17] According to the LIC DSA guidelines, the existence of arrears could suggest that a country is in debt distress, unless there are other reasons than debt-service burden for not servicing its debt. Despite having substantial arrears to external creditors, Mauritania is not assessed as being in debt distress because its arrears are related to debts that were previously categorized as "passive".

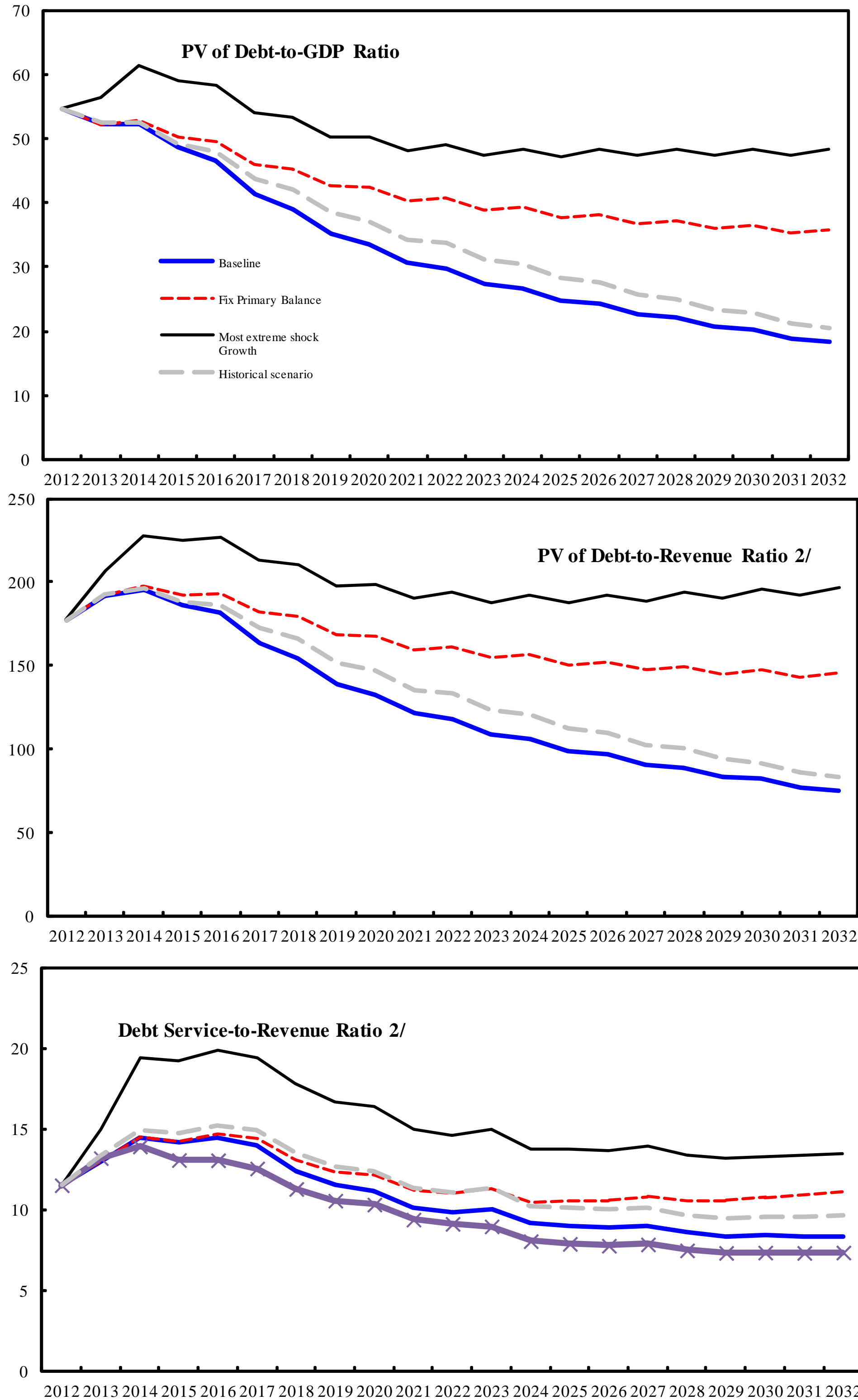
[18] In the LIC DSA framework, the quality of a country's policies and institutions is measured by the World Bank's Country Policy and Institutional Assessment (CPIA) index, and classified into three categories: strong, medium, and poor. Mauritania ranks as a "medium performer" according to that criterion as the updated average CPIA rating for Mauritania over 2008–11 is 3.24 (against a threshold of 3.25). The country's performance rating will not change because the breach was only in effect for one year (2010) and 2011 CPIA numbers are not available yet. Policy-dependent thresholds are set according to the country's CPIA classification.

Figure 1. Mauritania: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2012-2032 1/



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in 2022. In figure b. it corresponds to a shock on non-debt creating flows; in c. to a shock on non-debt creating flows; in d. to a shock on non-debt creating flows; in e. to a shock on non-debt creating flowsand in figure f. to a shock on non-debt creating flows

Figure 2. Mauritania: Indicators of Public Debt Under Alternative Scenarios, 2012-2032 1/



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in 2022.
2/ Revenues are defined inclusive of grants.

Table 1: External Debt Sustainability Framework, Baseline Scenario, 2009-2032 1/
(In percent of GDP, unless otherwise indicated)

	Actual						Historical 0 Average	0 Standard Deviation	Projections									
	2006	2007	2008	2009	2010	2011			2012	2013	2014	2015	2016	2017	2013-2017 Average	2022	2032	2018-2032 Average
External debt (nominal) 1/	**89.3**	**89.2**	**88.6**	**106.7**	**95.4**	**90.6**		**-7.3**	**83.3**	**84.6**	**81.3**	**76.3**	**73.4**	**66.7**	76.5	**45.7**	**25.9**	39.8
Of which: public and publicly guaranteed (PPG)	86.9	82.9	80.8	96.5	83.7	76.8		**-14.4**	62.4	60.6	61.5	58.0	56.7	51.5	57.6	38.5	21.9	33.2
Change in external debt	-86.8	-0.2	-0.6	18.1	-11.3	-4.7			-7.3	1.3	-3.3	-5.0	-2.9	-6.7	-3.3	-2.5	-0.8	-2.7
Identified net debt-creating flows	-59.3	0.5	-5.1	25.9	-7.4	-10.2			12.1	1.6	-0.9	-3.1	-4.4	-5.5	-2.4	-2.1	-1.2	-1.9
Non-interest current account deficit	**0.5**	**16.3**	**14.8**	**10.8**	**7.1**	**6.1**	**16.7**	**14.7**	**17.9**	**16.3**	**10.8**	**5.9**	**4.4**	**2.9**	8.0	**3.9**	**4.1**	3.9
Deficit in balance of goods and services	4.7	22.4	22.2	16.7	11.2	6.0			15.0	13.9	8.6	3.8	2.9	2.2	6.3	2.5	4.0	3.0
Exports	53.6	51.1	54.5	50.2	59.3	71.5			74.0	64.4	61.1	57.9	56.1	53.9	58.7	47.9	40.4	45.7
Imports	58.3	73.4	76.6	66.9	70.4	77.5			89.0	78.2	69.7	61.7	59.0	56.1	65.0	50.5	44.4	48.7
Net current transfers (negative = inflow)	-5.9	-5.0	-5.6	-4.3	-4.4	-2.8	-6.2	2.3	-3.8	-2.7	-2.8	-2.4	-2.3	-2.5	-2.6	-1.3	-0.9	-1.2
Of which : public and publicly guaranteed (PPG)	-3.4	-2.5	-3.5	-2.1	-2.8	-2.0			-2.7	-1.7	-1.8	-1.5	-1.3	-1.6	-1.6	-0.5	-0.3	-0.4
Other current account flows (negative = net inflow)	1.7	-1.1	-1.9	-1.5	0.4	2.8			6.7	5.1	4.9	4.6	3.7	3.2	4.3	2.7	1.0	2.1
Net FDI (negative = inflow)	**-5.7**	**-10.8**	**-5.0**	**-1.3**	**3.2**	**-6.0**	**-11.0**	**13.9**	**-8.3**	**-10.5**	**-8.9**	**-6.1**	**-5.3**	**-4.6**	-7.1	**-5.0**	**-4.8**	-4.9
Endogenous debt dynamics 2/	**-54.1**	**-5.1**	**-14.8**	**16.4**	**-17.7**	**-10.2**			**2.5**	**-4.2**	**-2.7**	**-2.9**	**-3.5**	**-3.7**	-3.4	**-1.0**	**-0.5**	-0.9
Contribution from nominal interest rate	0.8	1.4	1.0	1.6	1.6	1.5			1.6	1.6	1.8	2.0	2.1	2.0	1.9	1.1	0.6	0.9
Contribution from real GDP growth	-13.9	-0.8	-2.6	1.3	-4.4	-3.3			-5.2	-5.4	-4.6	-4.2	-3.9	-3.6	-4.3	-2.1	-1.1	-1.8
Contribution from price and exchange rate changes	-41.1	-5.6	-13.2	13.5	-14.8	-8.4			6.0	-0.4	0.1	-0.7	-1.7	-2.0	-0.9	-0.7	...	-0.7
Residual (3-4) 3/	**-27.5**	**-0.6**	**4.5**	**-7.9**	**-3.9**	**5.4**			**-19.4**	**-0.3**	**-2.5**	**-1.9**	**1.4**	**-1.2**	-0.9	**-0.4**	**0.4**	-0.8
Of which: exceptional financing	1.2	1.2	1.2	0.7	-5.1	0.3			-20.5	0.3	0.3	0.3	0.2	0.2	0.3	0.1	0.1	0.1
PV of external debt 4/	...	...	...	...	...	73.9			68.0	69.5	65.9	61.7	59.0	53.6	61.9	36.2	21.6	32.0
In percent of exports	...	...	...	...	...	103.4			91.9	107.9	107.8	106.5	105.3	99.4	105.4	75.6	53.4	69.1
PV of PPG external debt	**...**	**...**	**...**	**...**	**...**	**60.0**			**47.1**	**45.4**	**46.0**	**43.4**	**42.3**	**38.3**	43.1	**29.0**	**17.6**	25.4
In percent of exports	**...**	**...**	**...**	**...**	**...**	**84.0**			**63.6**	**70.6**	**75.3**	**74.9**	**75.4**	**71.1**	73.4	**60.5**	**43.5**	54.9
In percent of government revenues	**...**	**...**	**...**	**...**	**...**	**224.7**			**159.9**	**174.0**	**178.4**	**171.2**	**169.7**	**155.7**	169.8	**117.4**	**72.7**	103.1
Debt service-to-exports ratio (in percent)	**2.8**	**2.7**	**5.8**	**6.0**	**5.7**	**4.2**			**4.5**	**5.3**	**6.5**	**8.1**	**10.2**	**10.1**	8.0	**7.6**	**5.8**	7.0
PPG debt service-to-exports ratio (in percent)	**2.2**	**1.8**	**4.5**	**3.7**	**3.8**	**2.9**			**3.3**	**4.0**	**5.0**	**5.1**	**5.5**	**5.6**	5.0	**5.0**	**4.9**	5.0
PPG debt service-to-revenue ratio (in percent)	**1.9**	**3.8**	**10.5**	**9.0**	**9.4**	**7.7**			**8.2**	**9.8**	**11.8**	**11.7**	**12.3**	**12.2**	11.5	**9.7**	**8.2**	9.3
Total gross financing need (Billions of U.S. dollars)	0.0	0.3	0.5	0.5	0.7	0.3			0.7	0.7	0.6	0.5	0.5	0.4	0.5	0.4	0.5	0.5
Non-interest current account deficit that stabilizes debt ratio	87.3	16.5	15.3	-7.2	18.4	10.8			25.2	15.0	14.1	10.9	7.3	9.5	11.4	6.4	4.9	6.6
Key macroeconomic assumptions																		
Real GDP growth (in percent)	11.4	1.0	3.5	-1.2	5.1	4.0	4.1	3.5	5.7	7.0	5.7	5.4	5.5	5.4	5.8	4.6	4.2	4.4
GDP deflator in US dollar terms (change in percent)	30.4	6.7	17.4	-13.2	16.2	9.6	10.3	11.6	-6.3	0.4	-0.1	0.9	2.3	2.8	1.3	2.6	2.5	2.6
Effective interest rate (percent) 5/	0.7	1.7	1.3	1.6	1.8	1.8	1.0	0.7	1.8	2.1	2.2	2.7	3.0	2.9	2.6	2.4	2.2	2.3
Growth of exports of G&S (US dollar terms, in percent)	105.2	2.8	29.6	-20.9	44.0	37.5	26.7	36.3	2.6	-6.6	0.3	0.9	4.4	4.3	0.7	5.0	5.2	5.1
Growth of imports of G&S (US dollar terms, in percent)	-12.9	35.8	26.9	-25.1	28.4	25.4	21.2	28.0	13.8	-5.6	-5.9	-5.8	3.2	3.1	-2.2	5.8	6.9	5.5
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	...	...	...	32.6	32.9	33.6	34.3	34.1	34.1	33.8	27.5	10.9	21.1
Government revenues (excluding grants, in percent of GDP)	62.1	25.0	23.4	20.6	23.8	26.7			29.4	26.1	25.8	25.3	24.9	24.6	25.4	24.7	24.2	24.6
Aid flows (in Billions of US dollars) 7/	0.1	0.1	0.0	0.0	0.0	0.1			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Of which: Grants	0.1	0.1	0.0	0.0	0.0	0.0			0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Of which: Concessional loans	0.0	0.0	0.0	0.0	0.0	0.1			0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Grant-equivalent financing (in percent of GDP) 8/	...	...	...	...	...	...			3.8	3.1	2.5	2.2	1.9	1.6	2.3	1.1	0.5	0.9
Grant-equivalent financing (in percent of external financing) 8/	...	...	...	...	...	...			43.2	43.3	45.5	44.9	44.8	45.6	44.8	41.1	24.0	34.9
Memorandum items:																		
Nominal GDP (Billions of US dollars)	2.7	2.9	3.5	3.0	3.7	4.2			4.2	4.5	4.7	5.0	5.4	5.9		8.5	16.7	
Nominal dollar GDP growth	45.3	7.8	21.5	-14.3	22.1	14.0			-0.9	7.5	5.6	6.4	7.9	8.4	7.2	7.3	6.8	7.2
PV of PPG external debt (in Billions of US dollars)						2.5			1.9	2.0	2.1	2.2	2.2	2.3		2.4	2.9	
(PVt-PVt-1)/GDPt-1 (in percent)									-13.7	3.2	1.8	1.5	1.1	0.6	1.6	0.4	0.3	0.5

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as [r - g - ρ(1+g)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = growth rate of GDP deflator in U.S. dollar terms.

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

4/ Assumes that PV of private sector debt is equivalent to its face value.

5/ Current-year interest payments divided by previous period debt stock.

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

7/ Defined as grants, concessional loans, and debt relief.

8/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

Table 2. Mauritania: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2012-2032
(In percent)

	Projections											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**	2032
PV of debt-to GDP ratio												
Baseline	47	45	46	43	42	38	37	34	33	30	**29**	18
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2012-2032 1/	47	40	37	36	35	34	34	34	34	32	**32**	27
A2. New public sector loans on less favorable terms in 2012-2032 2	47	47	48	47	46	44	42	40	39	37	**36**	28
B. Bound Tests												
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	47	48	49	48	45	42	40	37	35	33	**31**	18
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	47	47	52	51	48	45	42	40	38	35	**33**	19
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	47	46	46	45	42	39	37	35	32	30	**29**	17
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	47	56	64	62	59	56	53	50	47	44	**42**	21
B5. Combination of B1-B4 using one-half standard deviation shocks	47	40	29	28	26	24	22	20	19	17	**16**	13
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	47	64	63	61	58	54	51	48	45	42	**39**	24
PV of debt-to-exports ratio												
Baseline	64	71	75	75	75	71	71	66	65	61	**61**	44
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2012-2032 1/	64	63	61	61	62	63	66	66	67	66	**67**	66
A2. New public sector loans on less favorable terms in 2012-2032 2	64	73	78	82	82	82	81	79	78	76	**75**	69
B. Bound Tests												
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	64	70	73	74	73	71	68	65	63	60	**58**	41
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	64	75	98	100	99	96	93	90	86	83	**80**	52
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	64	70	73	74	73	71	68	65	63	60	**58**	41
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	64	87	105	108	106	103	101	97	94	91	**87**	52
B5. Combination of B1-B4 using one-half standard deviation shocks	64	54	38	38	37	36	34	32	30	29	**27**	25
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	64	70	73	74	73	71	68	65	63	60	**58**	41
PV of debt-to-revenue ratio												
Baseline	160	174	178	171	170	156	150	137	132	121	**117**	73
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2012-2032 1/	160	154	144	140	140	138	139	136	136	131	**129**	111
A2. New public sector loans on less favorable terms in 2012-2032 2	160	180	184	187	185	179	171	164	157	151	**146**	115
B. Bound Tests												
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	160	183	191	189	182	172	160	150	140	132	**124**	76
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	160	180	203	201	194	183	172	161	152	143	**135**	77
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	160	177	178	176	170	160	149	140	131	123	**116**	71
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	160	214	249	246	238	226	213	201	190	180	**169**	88
B5. Combination of B1-B4 using one-half standard deviation shocks	160	155	111	109	104	97	90	82	76	70	**66**	53
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	160	247	246	242	234	220	206	192	180	169	**160**	98
Debt service-to-exports ratio												
Baseline	3	4	5	5	5	6	6	5	5	5	**5**	5
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2012-2032 1/	3	4	4	4	4	4	4	4	4	3	**3**	3
A2. New public sector loans on less favorable terms in 2012-2032 2	3	4	5	5	5	5	5	5	6	5	**5**	6
B. Bound Tests												
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	3	4	5	5	5	6	6	5	5	5	**5**	5
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	3	4	6	6	7	7	7	7	7	6	**6**	6
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	3	4	5	5	5	6	6	5	5	5	**5**	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	3	4	5	6	6	6	6	6	6	6	**7**	6
B5. Combination of B1-B4 using one-half standard deviation shocks	3	3	4	3	4	4	4	4	4	3	**3**	3
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	3	4	5	5	5	6	6	5	5	5	**5**	5
Debt service-to-revenue ratio												
Baseline	8	10	12	12	12	12	12	11	11	10	**10**	8
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2012-2032 1/	8	9	10	9	9	9	8	8	7	7	**6**	6
A2. New public sector loans on less favorable terms in 2012-2032 2	8	10	11	11	12	12	11	11	11	10	**10**	10
B. Bound Tests												
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	8	10	13	13	14	13	13	12	12	11	**11**	9
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	8	10	12	13	13	13	12	12	12	11	**11**	9
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	8	10	12	12	13	13	12	11	11	10	**10**	8
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	8	10	13	14	14	14	14	13	13	12	**13**	11
B5. Combination of B1-B4 using one-half standard deviation shocks	8	10	11	10	10	10	10	9	9	8	**7**	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	8	14	17	17	17	17	17	16	15	14	**14**	11
Memorandum item:												
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	18	18	18	18	18	18	18	18	18	18	**18**	18

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline., while grace and maturity periods are the same as in the baseline.
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).
4/ Includes official and private transfers and FDI.
5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.
6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

Table 3.Mauritania: Public Sector Debt Sustainability Framework, Baseline Scenario, 2009-2032

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2009	2010	2011	Average	Standard Deviation	2012	2013	2014	2015	2016	2017	2012-17 Average	2022	2032	2018-32 Average
Public sector debt 1/	106.1	92.8	83.5			70.0	67.4	67.8	63.4	60.9	54.5	64.0	39.2	22.6	34.1
Of which foreign-currency denominated	96.5	83.7	76.8			62.4	60.6	61.5	58.0	56.7	51.5	58.4	38.5	21.9	33.2
Change in public sector debt	15.8	-13.3	-9.4			-13.5	-2.6	0.4	-4.4	-2.5	-6.4	-4.8	-1.3	-0.9	-2.1
Identified debt-creating flows	16.9	-19.8	-10.1			-16.4	-3.5	0.4	-4.2	-2.4	-6.3	-5.4	-1.5	-0.8	-2.1
Primary deficit	7.1	0.8	-0.2	-0.4	13.5	1.4	1.1	0.5	-0.1	-0.9	-1.5	0.1	-0.5	-0.3	-0.4
Revenue and grants	21.3	25.0	27.4			30.8	27.2	26.8	26.1	25.6	25.2	27.0	25.2	24.5	25.0
Of which: grants	0.8	1.1	0.7			1.4	1.1	1.0	0.8	0.7	0.6	0.9	0.5	0.3	0.5
Primary (noninterest) expenditure	28.4	25.8	27.2			32.2	28.3	27.2	26.0	24.7	23.8	27.1	24.7	24.2	24.6
Automatic debt dynamics	9.1	-15.4	-10.3			3.3	-5.0	-0.4	-4.3	-1.8	-5.0	-2.2	-1.1	-0.6	-1.8
Contribution from interest rate/growth differential	3.7	-5.7	-4.4			-3.2	-3.3	-2.6	-2.8	-2.8	-2.9	-2.9	-2.0	-0.9	-1.7
Of which: contribution from average real interest rate	2.6	-0.5	-0.9			1.3	1.3	1.1	0.7	0.4	0.2	0.8	-0.2	0.0	-0.1
Of which: contribution from real GDP growth	1.1	-5.1	-3.5			-4.5	-4.6	-3.7	-3.5	-3.3	-3.1	-3.8	-1.8	-0.9	-1.6
Contribution from real exchange rate depreciation	5.4	-9.7	-5.9			6.5	-1.7	2.2	-1.6	1.1	-2.1	0.7	...	...	-0.3
Other identified debt-creating flows	0.7	-5.2	0.4			-21.2	0.3	0.3	0.3	0.3	0.2	-3.3	0.1	0.1	0.1
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	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	0.0
Debt relief (HIPC and other)	0.7	-5.2	0.4			-21.2	0.3	0.3	0.3	0.3	0.2	-3.3	0.1	0.1	0.1
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	0.0
Residual, including asset changes	-1.0	6.5	0.7			2.9	0.9	0.0	-0.2	-0.1	-0.2	0.6	0.2	0.0	0.0
Other Sustainability Indicators															
PV of public sector debt	9.6	9.1	66.7			54.7	52.2	52.3	48.7	46.5	41.3	49.3	29.7	18.3	26.3
Of which: foreign-currency denominated	0.0	0.0	60.0			47.1	45.4	46.0	43.4	42.3	38.3	43.7	29.0	17.6	25.4
Of which: external	...	...	60.0			47.1	45.4	46.0	43.4	42.3	38.3	43.7	29.0	17.6	25.4
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...	...	...	...	
Gross financing need 2/	25.3	16.2	10.8			11.4	11.5	10.6	9.3	7.7	5.9	9.4	2.7	2.5	3.0
PV of public sector debt-to-revenue and grants ratio (in percent)	45.0	36.6	243.9			177.6	191.9	195.5	186.5	181.6	163.7	182.8	117.9	74.7	104.8
PV of public sector debt-to-revenue ratio (in percent)	46.7	38.4	249.8			185.9	200.0	202.9	192.3	186.7	167.9	189.3	120.3	75.7	106.8
Of which: external 3/	…	…	224.7			159.9	174.0	178.4	171.2	169.7	155.7	168.2	117.4	72.7	103.1
Debt service-to-revenue and grants ratio (in percent) 4/	37.7	31.4	11.5			11.5	13.0	14.5	14.2	14.4	14.0	13.6	9.8	8.4	9.6
Debt service-to-revenue ratio (in percent) 4/	39.1	32.9	11.8			12.1	13.5	15.0	14.6	14.8	14.3	14.1	10.1	8.5	9.7
Primary deficit that stabilizes the debt-to-GDP ratio	-8.7	14.1	9.2			14.9	3.8	0.1	4.3	1.6	5.0	4.9	0.8	0.5	1.7
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	-1.2	5.1	4.0	4.1	3.5	5.7	7.0	5.7	5.4	5.5	5.4	5.8	4.6	4.2	4.4
Average nominal interest rate on forex debt (in percent)	0.8	1.1	1.1	0.6	0.4	1.3	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.9	1.7
Average real interest rate on domestic debt (in percent)	20.8	-5.1	-0.8	5.9	10.5	15.2	9.8	9.4	8.4	7.6	8.4	9.8	...	1.6	1.7
Real exchange rate depreciation (in percent, + indicates depreciation)	6.5	-10.6	-7.4	-7.8	7.8	8.9	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	-5.9	21.8	12.1	10.9	11.2	-0.9	4.1	3.2	3.9	4.9	4.9	3.3	5.0	5.3	5.1
Growth of real primary spending (deflated by GDP deflator, in percent)	-2.2	-4.7	9.5	-2.0	8.9	25.3	-5.9	1.6	0.6	0.5	1.3	3.9	5.0	3.4	4.6
Grant element of new external borrowing (in percent)	...	...	...	…	…	32.6	32.9	33.6	34.3	34.1	34.1	33.6	27.5	10.9	...

Sources: Country authorities; and staff estimates and projections.

1/ Non-financial public sector gross debt.

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

3/ Revenues excluding grants.

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

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

Table 4.Mauritania: Sensitivity Analysis for Key Indicators of Public Debt, 2012-2032

	Projections							
	2012	2013	2014	2015	2016	2017	2022	2032
PV of Debt-to-GDP Ratio								
Baseline	55	52	52	49	47	41	30	18
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	55	52	53	49	48	44	34	21
A2. Primary balance is unchanged from 2012	55	52	53	50	49	46	41	36
A3. Permanently lower GDP growth 1/	55	53	53	50	49	44	38	44
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2013-2014	55	56	61	59	58	54	49	48
B2. Primary balance is at historical average minus one standard deviations in 2013-2014	55	60	69	64	62	55	41	26
B3. Combination of B1-B2 using one half standard deviation shocks	55	58	64	61	60	54	47	41
B4. One-time 30 percent real depreciation in 2013	55	70	70	64	61	54	40	26
B5. 10 percent of GDP increase in other debt-creating flows in 2013	55	59	59	55	52	47	34	21
PV of Debt-to-Revenue Ratio 2/								
Baseline	178	192	195	187	182	164	118	75
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	178	192	196	188	187	173	133	84
A2. Primary balance is unchanged from 2012	178	192	198	192	193	182	161	146
A3. Permanently lower GDP growth 1/	178	193	198	191	189	174	149	177
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2013-2014	178	207	228	225	227	213	194	197
B2. Primary balance is at historical average minus one standard deviations in 2013-2014	178	222	258	246	241	219	164	105
B3. Combination of B1-B2 using one half standard deviation shocks	178	213	238	232	232	215	185	168
B4. One-time 30 percent real depreciation in 2013	178	258	260	245	239	214	159	108
B5. 10 percent of GDP increase in other debt-creating flows in 2013	178	217	220	210	205	185	135	86
Debt Service-to-Revenue Ratio 2/								
Baseline	12	13	14	14	14	14	10	8
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	12	13	15	15	15	15	11	10
A2. Primary balance is unchanged from 2012	12	13	14	14	15	14	11	11
A3. Permanently lower GDP growth 1/	12	13	15	14	15	15	11	12
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2013-2014	12	14	16	16	17	16	13	14
B2. Primary balance is at historical average minus one standard deviations in 2013-2014	12	13	15	16	17	16	11	10
B3. Combination of B1-B2 using one half standard deviation shocks	12	14	16	16	17	16	12	13
B4. One-time 30 percent real depreciation in 2013	12	15	19	19	20	19	15	13
B5. 10 percent of GDP increase in other debt-creating flows in 2013	12	13	15	15	15	15	10	9

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.