INTERNATIONAL MONETARY FUND

AND

INTERNATIONAL DEVELOPMENT ASSOCIATION

ISLAMIC REPUBLIC OF MAURITANIA

Joint IMF/IDA Debt Sustainability Analysis Update

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The updated joint IMF-World Bank low-income country debt sustainability analysis (LICDSA) shows a moderate risk of debt distress for Mauritania.[10] *Under the baseline scenario, debt burden indicators do not exceed their policy-dependent indicative thresholds, although the present value (PV) of debt-to-GDP ratio briefly hits the relevant threshold. Public debt indicators remain on broadly declining paths. Stress tests suggest that Mauritania is particularly vulnerable to export shocks, thus highlighting the need to pursue prudent macroeconomic policies, maintain a cautious borrowing strategy, improve debt management, and diversify the economy.*

1. **This DSA is consistent with the macroeconomic framework outlined in the IMF's Second Review under the Extended Credit Facility**. Compared to the previous DSA,[11] prepared in February 2010 in connection with Mauritania's request for an arrangement under the Extended Credit Facility, this analysis includes a much more favorable near-term evolution of the external sector and fiscal balance, reflecting higher prices for the country's metal exports. By the end of the medium term, the outlook for the current account is broadly similar to that assumed in the previous DSA. In addition, whereas the previous DSA assumed that full cancellation of debt owed to remaining bilateral creditors occurred in

[10] The DSA presented in this document is based on the standard low-income countries (LIC) DSA framework. In accordance with the approach established in A Review of Some Aspects of the Low-Income Country Debt Sustainability Framework, and in the absence of significant changes in debt vulnerabilities since the full DSA undertaken in February 2010, this analysis is presented in streamlined format.

[11] See Islamic Republic of Mauritania -- Staff Report for the 2009 Article IV Consultation and Request for Arrangement under the Extended Credit Facility.

2010, only a portion of this debt was, in the event, cancelled. While agreements with Algeria and Libya were finalized in 2010, negotiations with the remaining creditor (Kuwait) are continuing, and the current DSA assumes that the remaining debt will be cancelled in 2011. The DSA's macroeconomic assumptions are described in Annex I.

2. **The DSA includes, as part of its baseline scenario, two $105 million external loans not yet signed but currently being considered by the authorities in connection with the expansion of Mauritania's electricity generation and distribution system.** The external borrowing for the project is structured as one nonconcessional and one concessional loan, each for $105 million.[12] The DSA incorporates conservative assumptions regarding the financial terms of the loans, and the growth dividend from the expansion of the electrical network.[13] Resort to concessional lending will continue to guide the authorities' debt strategy in the near term—with nonconcessional lending remaining the exception. Over the longer run, new borrowing will gradually shift away from concessional financing.

3. **External public and publicly guaranteed (PPG) debt burden indicators under the baseline scenario remain below their policy-dependent thresholds, with the exception of a marginal breach of the debt-GDP threshold over the medium term** (Figure 1, Table 1).[14] However, stress tests reveal that Mauritania's external debt sustainability is very vulnerable to an export shock, with the standard shock (export growth in 2011-12 returning to its historical average minus one standard deviation) leading to sizable breaches of all thresholds (Figure 1, Table 2). This reflects the country's reliance on mining exports (iron, copper, and gold), whose prices are highly volatile on global markets. This underscores the importance of policies aimed at diversifying the economy and a highly prudent approach to external borrowing.

4. **Indicators of overall public debt (external plus domestic debt) and debt service follow a similar pattern as those for external public debt** (Table 3). Public debt sustainability hinges on containing the fiscal deficit in the medium and long term, which will help reduce public debt to 34 percent of GDP by 2030. Like the external debt position, stress

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[12] The program ceiling on nonconcessional lending was raised to allow for this strategic priority project, which was considered 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] While terms of the loans have still not been finalized, it is assumed that 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.

[14] The indicative external debt burden thresholds for Mauritania are based on its classification as a "medium policy" performer given its (2007–09) score of 3.31 on the World Bank's Country Policy and Institutional Assessment index (CPIA). Median Policy Performers are those countries with a CPIA rating between 3.25 and 3.75.

tests (Table 4 and Figure 2) reveal that public debt is vulnerable to external shocks, notably shocks to the exchange rate, and to lower GDP growth.

5. **As was the case with the previous full DSA, this update concludes that Mauritania's external debt burden is subject to a moderate risk of debt distress.** The sustainability of Mauritania's external PPG debt appears vulnerable to adverse shocks to the prices of its key commodity exports. This highlights the need for prudent debt management, including continuing to seek external resources on concessional terms wherever possible. Adding domestic debt, while raising the debt burden indicators, does not change the overall assessment of debt vulnerabilities but highlights the need for continued fiscal consolidation. In the absence of debt relief from remaining creditors, assumed to occur in 2011, Mauritania's debt-to-GDP ratio would continue to breach the applicable threshold, leading to a more elevated risk of debt distress.

ANNEX I

MAIN MACROECONOMIC ASSUMPTIONS AND PRELIMINARY DSA RESULTS

Real GDP growth: Real GDP growth is projected to be sustained at 5.7 percent per year on average over 2011–15, supported by strong activity in the mining sector, which is primarily driven by significant investment programs boosting capacity of the national iron ore company, and private copper and gold production. Upon completion of these projects, we expect growth to converge to about 4½ percent per year by 2030. Near-term risks include volatility in the commodity market, notably a larger-than-expected drop in iron ore, gold, and copper prices from their current high levels, unfavorable climate conditions, a fall in the external demand, and a prolonged shortfall in power supply. 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: Continued prudent monetary and fiscal policies will lead to an inflation rate converging to about 5 percent in 2016 and thereafter.

Current account balance: After narrowing in 2011 amid high metal export prices and expanded production, the current account deficit is expected to widen over 2012–14 as a result of increased imports associated with the implementation of major mining and infrastructure projects, as well as a projected moderation of prices for key mining exports. The assumed longer-term current account deficit is broadly consistent with estimates of the norm (a deficit of about 7 percent of GDP) for Mauritania's current account based on the methodology developed by the IMF's Consultative Group on Exchange Rates (CGER).[15]

Government balances: The framework assumes the following: (a) non-oil revenue remains stable at about 23 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 deficit including grants is projected to improve gradually from 3.4 percent to about 0.3 percent of non-oil GDP between 2010 and 2030. The projected primary balance improves from a deficit of 1 percent of GDP in 2010 to a surplus of about 1½ percent of GDP in 2030.

External financing: The commitments made at the recent donors' roundtable in Brussels have improved the country's prospects for mobilizing external support. The baseline scenario assumes that, with the exception of the nonconcessional loan undertaken to finance the electricity generation plant discussed above, Mauritania will borrow essentially on concessional terms in the medium term. However, it is expected that new borrowing will

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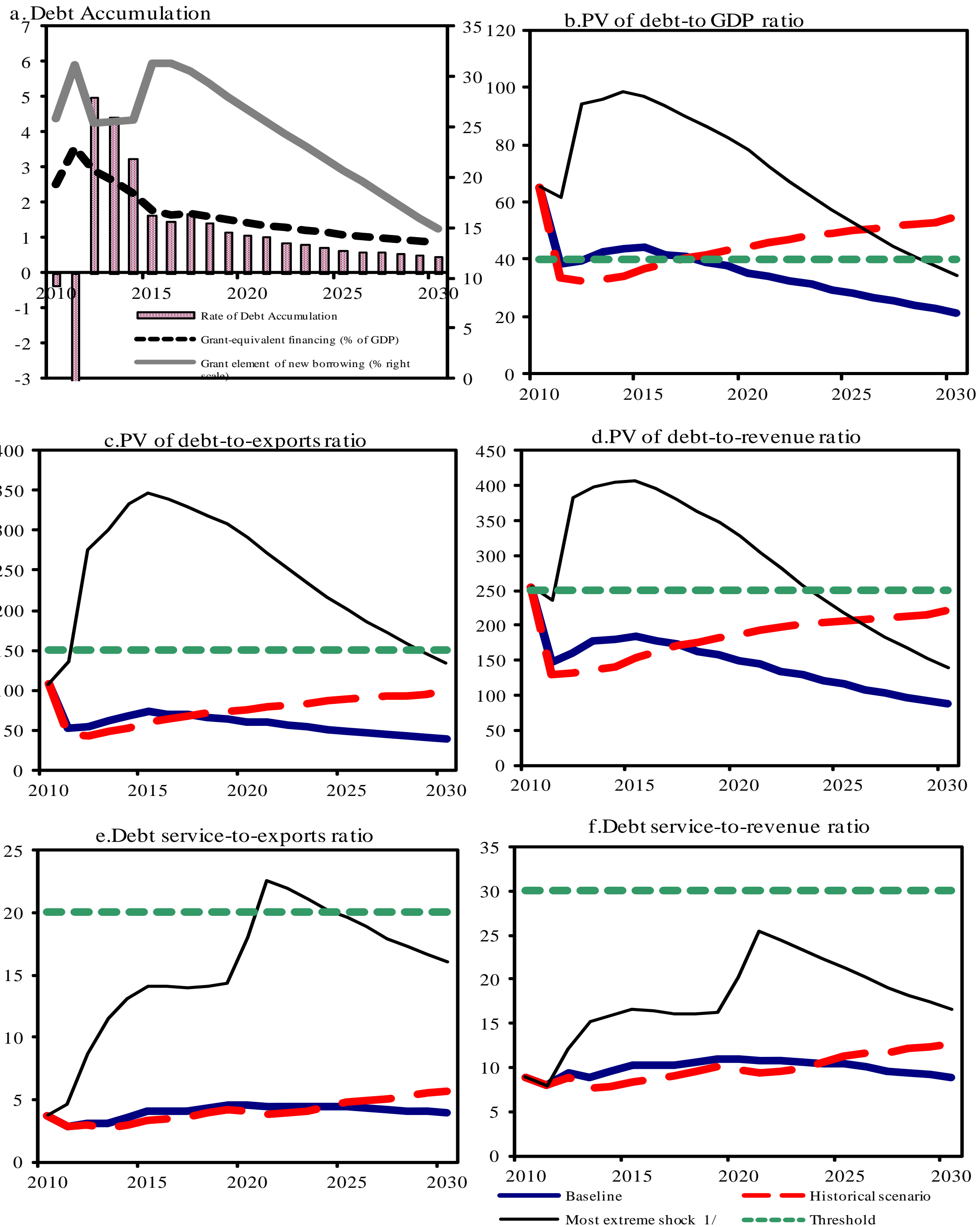
[15] The CGER framework assesses the consistency of a country's exchange rate with medium-term fundamentals, based on three complementary methodologies. Two of the three approaches involve estimating an equilibrium current account or "norm."

gradually shift away from concessional financing over the longer run. As a result, the average grant element on new borrowing will decline to below 20 percent by 2030.

Domestic debt: mainly treasury bills held by the banking sector, stood at just under 9 percent of GDP at end- 2010. It is projected to stay around 7 percent at the horizon 2030.

Real interest rates: The real interest rate of the short-term domestic debt approaches 4 percent in 2016 and thereafter.

Figure 1. Mauritania: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2010–30 1/



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in 2020. In figure b. it corresponds to a Exports shock; in c. to a Exports shock; in d. to a Exports shock; in e. to a Exports shock and in figure f. to a Exports shock.

Table 1: External Debt Sustainability Framework, Baseline Scenario, 2007–30 1/

(In percent of GDP, unless otherwise indicated)

	Actual						Historical Average 6/	Standard Deviation 6/	Projections													
	2004	2005	2006	2007	2008	2009			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-2015 Average	2020	2030	2016-2030 Average
External debt (nominal) 1/	**208.0**	**176.2**	**89.3**	**85.2**	**88.6**	**109.7**		**-22.8**	**86.8**	**72.9**	**78.5**	**85.7**	**86.0**	**84.5**	**79.5**	**76.5**	**71.6**	**68.7**	81.5	**64.4**	**39.5**	57.2
Of which: public and publicly guaranteed (PPG)	203.2	168.9	86.9	82.9	80.8	99.5		**-24.6**	74.8	54.8	55.8	59.4	60.5	60.4	57.1	55.8	52.4	50.8	58.2	47.6	27.7	41.8
Change in external debt	-16.2	-31.9	-86.8	-4.1	3.4	21.0			-22.8	-14.0	5.6	7.2	0.3	-1.5	-5.0	-3.0	-4.9	-3.0	-0.5	-4.3	-2.4	-3.0
Identified net debt-creating flows	-23.0	-37.2	-59.3	0.5	-4.4	25.9			-17.3	3.5	5.0	4.3	3.9	-2.2	-2.0	-1.2	-1.1	-1.2	2.9	-0.9	-3.2	-1.1
Non-interest current account deficit	**34.4**	**46.7**	**0.5**	**16.3**	**14.8**	**10.7**	**15.8**	**15.8**	**3.7**	**6.2**	**7.7**	**7.7**	**8.6**	**6.9**	**6.0**	**5.1**	**5.1**	**6.3**	7.4	**6.6**	**5.3**	5.9
Deficit in balance of goods and services	46.3	59.4	4.7	22.4	22.2	16.7			11.3	6.3	5.1	5.1	7.0	5.7	5.3	3.7	3.2	5.4	5.8	6.5	3.4	4.7
Exports	32.9	37.9	53.6	51.1	54.5	50.2			60.4	74.4	73.8	68.8	64.1	60.5	59.7	59.0	58.5	58.0	68.3	58.1	55.0	57.2
Imports	79.2	97.3	58.3	73.4	76.6	66.9			71.7	80.7	78.9	73.9	71.1	66.2	65.0	62.7	61.7	63.4	74.2	64.6	58.4	61.9
Net current transfers (negative = inflow)	-7.3	-8.7	-5.9	-5.0	-5.6	-4.3	-7.4	2.3	-4.5	-4.5	-3.8	-3.3	-3.5	-3.2	-3.1	-2.9	-2.8	-2.7	-3.7	-2.6	-1.8	-2.4
Of which: official	-4.1	-5.4	-3.4	-2.5	-3.5	-2.1			-2.8	-2.5	-1.9	-1.5	-1.7	-1.4	-1.3	-1.2	-1.2	-1.1	-1.8	-1.0	-0.6	-0.9
Other current account flows (negative = net inflow)	-4.6	-4.0	1.7	-1.1	-1.9	-1.7			-3.1	4.3	6.4	5.9	5.1	4.4	3.8	4.4	4.7	3.6	5.2	2.7	3.7	3.6
Net FDI (negative = inflow)	**-26.2**	**-43.8**	**-5.7**	**-10.8**	**-5.0**	**-1.3**	**-11.7**	**13.2**	**-4.6**	**4.0**	**1.1**	**-1.8**	**-4.9**	**-7.2**	**-5.8**	**-4.3**	**-4.3**	**-5.7**	-1.8	**-5.9**	**-7.4**	-5.5
Endogenous debt dynamics 2/	**-31.2**	**-40.1**	**-54.1**	**-5.1**	**-14.1**	**16.6**			**-16.4**	**-6.6**	**-3.8**	**-1.5**	**0.2**	**-1.8**	**-2.3**	**-2.0**	**-1.9**	**-1.7**	-2.7	**-1.6**	**-1.1**	-1.5
Contribution from nominal interest rate	0.2	0.5	0.8	1.4	1.0	1.8			1.6	1.4	1.6	2.0	2.4	2.3	2.1	1.8	1.7	1.5	1.9	1.4	0.7	1.1
Contribution from real GDP growth	-10.0	-9.1	-13.9	-0.8	-2.5	1.3			-4.7	-4.0	-3.9	-4.7	-4.8	-4.6	-4.4	-3.8	-3.5	-3.2	-4.4	-3.0	-1.7	-2.6
Contribution from price and exchange rate changes	-21.4	-31.5	-41.1	-5.6	-12.6	13.5			-13.3	-4.0	-1.6	1.2	2.6	0.5	…	…	…	…	-0.3	-1.3	...	-1.2
Residual (3-4) 3/	**6.8**	**5.4**	**-27.5**	**-4.6**	**7.8**	**-4.9**			**-5.5**	**-17.5**	**0.6**	**2.9**	**-3.6**	**0.7**	**-2.9**	**-1.8**	**-3.8**	**-1.8**	-3.4	**-3.4**	**0.8**	-1.9
Of which: exceptional financing	3.9	3.4	1.2	1.2	1.2	0.7			-5.2	-21.2	0.6	0.6	0.6	0.5	0.5	0.2	0.2	0.2	-3.8	0.2	0.0	0.2
PV of external debt 4/	...	...	...	...	...	95.0			77.1	56.5	62.3	69.0	69.4	68.2	64.3	61.8	57.9	55.5	65.1	52.1	33.3	46.7
In percent of exports	...	...	...	...	...	189.1			127.7	76.0	84.4	100.3	108.3	112.6	107.7	104.6	99.0	95.6	96.3	89.7	60.6	81.3
PV of PPG external debt	**...**	**...**	**...**	**...**	**...**	**84.8**			**65.1**	**38.5**	**39.6**	**42.7**	**44.0**	**44.1**	**41.8**	**41.0**	**38.7**	**37.6**	41.8	**35.4**	**21.5**	31.3
In percent of exports	**...**	**...**	**...**	**...**	**...**	**168.9**			**107.8**	**51.7**	**53.7**	**62.1**	**68.6**	**72.9**	**70.1**	**69.5**	**66.2**	**64.9**	61.8	**60.9**	**39.0**	54.5
In percent of government revenues	**...**	**...**	**...**	**...**	**...**	**380.2**			**255.7**	**147.8**	**161.0**	**177.2**	**180.9**	**185.1**	**177.2**	**173.3**	**163.2**	**158.4**	170.4	**148.7**	**87.0**	130.6
Debt service-to-exports ratio (in percent)	**4.5**	**3.8**	**2.7**	**3.8**	**2.7**	**6.7**			**5.5**	**4.1**	**4.5**	**5.9**	**8.5**	**8.9**	**8.4**	**8.0**	**7.8**	**7.7**	6.4	**7.1**	**4.2**	6.0
PPG debt service-to-exports ratio (in percent)	**4.3**	**3.6**	**2.1**	**3.0**	**2.2**	**4.2**			**3.8**	**2.8**	**3.1**	**3.1**	**3.6**	**4.0**	**4.1**	**4.1**	**4.3**	**4.5**	3.3	**4.5**	**4.0**	4.3
PPG debt service-to-revenue ratio (in percent)	**4.5**	**-5.6**	**1.8**	**5.9**	**5.0**	**9.5**			**8.9**	**8.0**	**9.4**	**8.8**	**9.6**	**10.3**	**10.3**	**10.3**	**10.6**	**11.0**	9.2	**11.0**	**8.9**	10.2
Total gross financing need (Billions of U.S. dollars)	0.2	0.2	0.0	0.3	0.5	0.5			0.3	0.7	0.7	0.6	0.6	0.4	0.4	0.5	0.5	0.5	0.6	0.5	0.2	0.5
Non-interest current account deficit that stabilizes debt ratio	50.6	78.6	87.3	20.5	11.4	-10.4			26.5	20.1	2.2	0.4	8.4	8.4	11.0	8.1	10.0	9.3	7.9	10.9	7.7	8.9
Key macroeconomic assumptions																						
Real GDP growth (in percent)	5.2	5.4	11.4	1.0	3.5	-1.2	3.7	3.5	5.2	5.1	5.7	6.3	5.7	5.7	5.5	5.2	5.0	4.8	5.7	4.6	4.5	4.7
GDP deflator in US dollar terms (change in percent)	10.6	17.9	30.4	6.7	17.4	-13.2	6.7	13.3	13.8	4.8	2.2	-1.5	-3.0	-0.6	1.4	2.7	2.7	2.8	0.4	2.8	2.9	2.8
Effective interest rate (percent) 5/	0.1	0.3	0.7	1.7	1.4	1.7	0.9	0.6	1.8	1.8	2.4	2.7	2.8	2.8	2.6	2.5	2.3	2.2	2.5	2.1	1.7	2.0
Growth of exports of G&S (US dollar terms, in percent)	35.6	43.3	105.2	2.8	29.6	-20.9	18.8	36.7	44.0	35.7	7.2	-2.3	-4.5	-0.7	5.5	6.8	6.8	6.9	7.1	7.8	6.8	6.9
Growth of imports of G&S (US dollar terms, in percent)	62.3	52.8	-12.9	35.8	26.9	-25.1	17.3	28.4	28.3	24.0	5.7	-1.9	-1.4	-2.2	5.0	4.2	6.2	10.7	4.8	9.7	3.4	6.7
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	...	...	...	25.8	31.1	25.5	25.5	25.7	31.3	31.3	30.6	29.3	28.0	27.8	26.8	14.9	23.2
Government revenues (excluding grants, in percent of GDP)	31.4	-24.3	62.1	26.3	23.4	22.3			25.5	26.0	24.6	24.1	24.3	23.8	23.6	23.7	23.7	23.8	24.6	23.8	24.7	24.1
Aid flows (in Billions of US dollars) 7/	0.0	0.9	0.1	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	0.1	0.1	0.1	0.1
Of which: Grants	0.0	0.9	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	0.0	0.0	0.0	0.1	0.1
Of which: Concessional loans	0.0	0.0	0.0	0.0	0.0	0.0			0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1
Grant-equivalent financing (in percent of GDP) 8/	...	...	...	...	...	...			2.5	3.6	2.9	2.6	2.2	1.8	1.6	1.7	1.6	1.5	2.6	1.4	0.9	1.2
Grant-equivalent financing (in percent of external financing) 8/	...	...	...	...	...	...			40.3	42.1	34.4	35.1	36.5	43.1	42.9	41.2	40.6	39.8	38.3	39.0	32.4	37.1
Memorandum items:																						
Nominal GDP (Billions of US dollars)	1.5	1.9	2.7	2.9	3.5	3.0			3.6	4.0	4.3	4.5	4.6	4.9	5.2	5.6	6.1	6.5		7.0	14.6	
Nominal dollar GDP growth	16.3	24.3	45.3	7.8	21.5	-14.3			19.7	10.2	8.1	4.7	2.6	5.0	7.0	8.0	7.9	7.7	6.1	7.6	7.6	7.5
PV of PPG external debt (in Billions of US dollars)						2.4			2.4	1.5	1.7	1.9	2.0	2.1	2.2	2.3	2.3	2.4		2.5	3.1	
(PVt-PVt-1)/GDPt-1 (in percent)									-0.4	-23.9	5.0	4.4	3.3	1.6	1.4	1.7	1.4	1.2	-1.9	1.1	0.5	0.7

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, 2010–30
(In percent)

	Projections											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	2030
PV of debt-to GDP ratio												
Baseline	65	38	40	43	44	44	42	41	39	38	**35**	21
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2010-2030 1/	65	34	32	33	34	37	39	40	42	43	**44**	55
A2. New public sector loans on less favorable terms in 2010-2030 2/	65	40	43	47	50	51	50	49	48	47	**46**	35
B. Bound Tests												
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	65	39	44	46	48	48	46	44	42	41	**39**	23
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	65	61	94	96	99	97	94	90	86	83	**78**	34
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	65	43	50	53	55	54	52	50	48	46	**44**	26
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	65	33	32	35	37	36	35	34	32	31	**29**	19
B5. Combination of B1-B4 using one-half standard deviation shocks	65	50	71	74	77	75	73	70	67	64	**61**	31
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	65	52	55	58	61	60	58	56	53	51	**49**	29
PV of debt-to-exports ratio												
Baseline	108	52	54	62	69	73	70	69	66	65	**61**	39
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2010-2030 1/	108	45	44	48	53	61	65	68	71	74	**76**	100
A2. New public sector loans on less favorable terms in 2010-2030 2/	108	53	58	68	78	84	84	83	82	81	**79**	64
B. Bound Tests												
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	108	50	53	60	68	71	69	67	65	63	**60**	38
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	108	136	276	302	332	346	339	329	319	308	**291**	135
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	108	50	53	60	68	71	69	67	65	63	**60**	38
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	108	44	44	51	57	60	59	57	55	53	**51**	35
B5. Combination of B1-B4 using one-half standard deviation shocks	108	83	118	131	146	152	149	144	140	135	**128**	68
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	108	50	53	60	68	71	69	67	65	63	**60**	38
PV of debt-to-revenue ratio												
Baseline	256	148	161	177	181	185	177	173	163	158	**149**	87
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2010-2030 1/	256	130	131	137	140	154	163	171	176	182	**186**	223
A2. New public sector loans on less favorable terms in 2010-2030 2/	256	152	173	193	207	213	211	207	202	197	**193**	143
B. Bound Tests												
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	256	151	177	192	199	200	195	187	179	171	**162**	94
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	256	236	383	398	406	407	397	380	364	348	**329**	139
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	256	164	201	218	227	228	222	213	203	194	**185**	107
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	256	127	132	145	152	152	148	142	136	129	**124**	78
B5. Combination of B1-B4 using one-half standard deviation shocks	256	193	290	307	315	317	308	296	283	270	**256**	125
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	256	201	222	241	251	252	245	235	225	214	**204**	118
Debt service-to-exports ratio												
Baseline	4	3	3	3	4	4	4	4	4	5	**5**	4
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2010-2030 1/	4	3	3	3	3	3	3	4	4	4	**4**	6
A2. New public sector loans on less favorable terms in 2010-2030 2/	4	3	3	3	4	4	4	4	5	5	**5**	6
B. Bound Tests												
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	4	3	3	3	4	4	4	4	4	4	**4**	4
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	4	5	9	12	13	14	14	14	14	14	**18**	16
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	4	3	3	3	4	4	4	4	4	4	**4**	4
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	4	3	3	3	3	4	4	4	4	4	**4**	3
B5. Combination of B1-B4 using one-half standard deviation shocks	4	4	5	6	7	7	7	7	7	8	**8**	8
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	4	3	3	3	4	4	4	4	4	4	**4**	4
Debt service-to-revenue ratio												
Baseline	9	8	9	9	10	10	10	10	11	11	**11**	9
A. Alternative Scenarios												
A1. Key variables at their historical averages in 2010-2030 1/	9	8	9	8	8	8	9	9	10	10	**10**	13
A2. New public sector loans on less favorable terms in 2010-2030 2/	9	8	9	9	10	10	10	11	11	12	**13**	12
B. Bound Tests												
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	9	8	10	10	11	11	11	11	12	12	**12**	10
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	9	8	12	15	16	17	16	16	16	16	**20**	17
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	9	9	12	11	12	13	13	13	13	14	**14**	11
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	9	8	9	8	9	9	10	10	10	10	**10**	8
B5. Combination of B1-B4 using one-half standard deviation shocks	9	9	12	13	14	15	15	15	15	15	**17**	14
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	9	11	13	12	13	14	14	14	15	15	**15**	12
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, 2007–30
(In percent of GDP, unless otherwise indicated)

	Actual			Average	Standard Deviation	Estimate	Projections								
	2007	2008	2009			2010	2011	2012	2013	2014	2015	2010-15 Average	2020	2030	2016-30 Average
Public sector debt 1/	90.1	90.6	109.9			84.6	63.1	63.7	67.2	68.2	67.6	69.1	53.8	34.1	48.3
Of which: foreign-currency denominated	82.9	80.8	99.5			74.8	54.8	55.8	59.4	60.5	60.4	61.0	47.6	27.7	41.8
Change in public sector debt	-2.2	0.5	19.2			-25.3	-21.5	0.6	3.5	0.9	-0.5	-7.0	-2.9	-2.3	-2.2
Identified debt-creating flows	-6.3	0.3	26.0			-27.6	-25.8	-1.1	1.5	0.1	-0.7	-8.9	-4.3	-3.6	-3.4
Primary deficit	-0.4	4.8	7.7	0.6	13.8	1.0	1.0	2.4	1.5	0.8	-0.5	1.0	-0.8	-1.6	-1.1
Revenue and grants	27.1	24.2	23.1			26.7	27.4	25.6	25.1	25.2	24.5	25.7	24.4	25.2	24.6
of which: grants	0.9	0.8	0.8			1.2	1.4	1.0	1.0	0.9	0.7	1.0	0.6	0.5	0.6
of which: oil revenue		2.3	2.4			1.4	1.0	0.8	0.8	0.8	0.7	0.9	4.3	2.1	3.1
Primary (noninterest) expenditure	26.7	29.0	30.9			27.7	28.4	28.0	26.5	26.0	24.0	26.8	23.6	23.7	23.6
Automatic debt dynamics	-7.0	-5.8	17.6			-23.1	-4.6	-4.2	-0.6	-1.3	-0.7	-5.7	-3.6	-2.1	-2.5
Contribution from interest rate/growth differential	-0.9	-2.6	4.2			-6.2	-4.1	-2.9	-3.0	-2.8	-3.1	-3.7	-2.5	-1.4	-2.2
of which: contribution from average real interest rate	0.1	0.5	3.1			-0.8	0.0	0.5	0.7	0.8	0.6	0.3	0.0	0.1	0.1
of which: contribution from real GDP growth	-0.9	-3.1	1.1			-5.4	-4.1	-3.4	-3.8	-3.6	-3.7	-4.0	-2.5	-1.6	-2.3
Contribution from real exchange rate depreciation	-6.1	-3.2	13.4			-16.9	-0.5	-1.3	2.5	1.5	2.3	-2.1	...	...	-0.2
Other identified debt-creating flows	1.1	1.3	0.7			-5.6	-22.3	0.7	0.6	0.6	0.5	-4.2	0.2	0.0	0.2
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)	1.1	1.3	0.7			-5.6	-22.3	0.7	0.6	0.6	0.5	-4.2	0.2	0.0	0.2
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	4.0	0.2	-6.7			2.4	4.4	1.7	2.0	0.8	0.2	1.9	1.3	1.3	1.2
Other Sustainability Indicators															
PV of public sector debt	7.2	9.8	95.3			74.9	46.7	47.5	50.5	51.6	51.3	53.8	41.6	27.9	37.8
Of which: foreign-currency denominated	0.0	0.0	84.8			65.1	38.5	39.6	42.7	44.0	44.1	45.7	35.4	21.5	31.3
Of which: external	...	...	84.8			65.1	38.5	39.6	42.7	44.0	44.1	45.7	35.4	21.5	31.3
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...	...	...	...	
Gross financing need 2/	11.1	18.1	23.1			12.8	12.9	13.2	12.0	11.6	10.1	12.1	7.8	7.3	8.0
PV of public sector debt-to-revenue and grants ratio (in percent)	26.6	40.7	411.5			280.7	170.7	185.3	201.5	204.8	209.1	208.7	170.3	110.7	153.8
PV of public sector debt-to-revenue ratio (in percent)	27.5	42.1	426.9			294.1	179.6	193.0	209.5	212.3	215.2	217.3	174.7	113.1	157.6
Of which: external 3/	…	…	380.2			255.7	147.8	161.0	177.2	180.9	185.1	184.6	148.7	87.0	130.6
Debt service-to-revenue and grants ratio (in percent) 4/	23.0	28.6	17.1			14.3	12.4	13.6	12.9	13.6	14.1	13.5	13.2	10.8	12.4
Debt service-to-revenue ratio (in percent) 4/	23.7	29.5	17.8			15.0	13.1	14.2	13.4	14.1	14.6	14.1	13.6	11.1	12.7
Primary deficit that stabilizes the debt-to-GDP ratio	1.8	4.3	-11.5			26.3	22.5	1.8	-2.1	-0.1	0.0	8.1	2.1	0.7	1.2
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	1.0	3.5	-1.2	3.7	3.5	5.2	5.1	5.7	6.3	5.7	5.7	5.6	4.6	4.5	4.7
Average nominal interest rate on forex debt (in percent)	1.2	1.0	1.0	0.7	0.5	1.1	1.1	1.5	1.6	1.6	1.6	1.4	1.6	1.9	1.7
Average real interest rate on domestic debt (in percent)	16.7	6.0	30.5	8.2	11.1	-6.3	2.9	5.9	10.3	12.3	9.9	5.8	4.0	2.9	3.5
Real exchange rate depreciation (in percent, + indicates depreciation)	-7.1	-4.0	16.3	-4.6	10.8	-17.9	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	3.3	9.0	-13.2	7.3	12.1	23.5	9.9	6.7	2.0	-0.2	1.7	7.3	4.9	5.0	4.9
Growth of real primary spending (deflated by GDP deflator, in percent)	0.2	12.5	5.1	4.8	15.6	-5.6	7.8	4.3	0.7	3.7	-2.5	1.4	4.6	4.6	4.6
Grant element of new external borrowing (in percent)	...	...	...	…	…	25.8	31.1	25.5	25.5	25.7	31.3	27.5	26.8	14.9	...

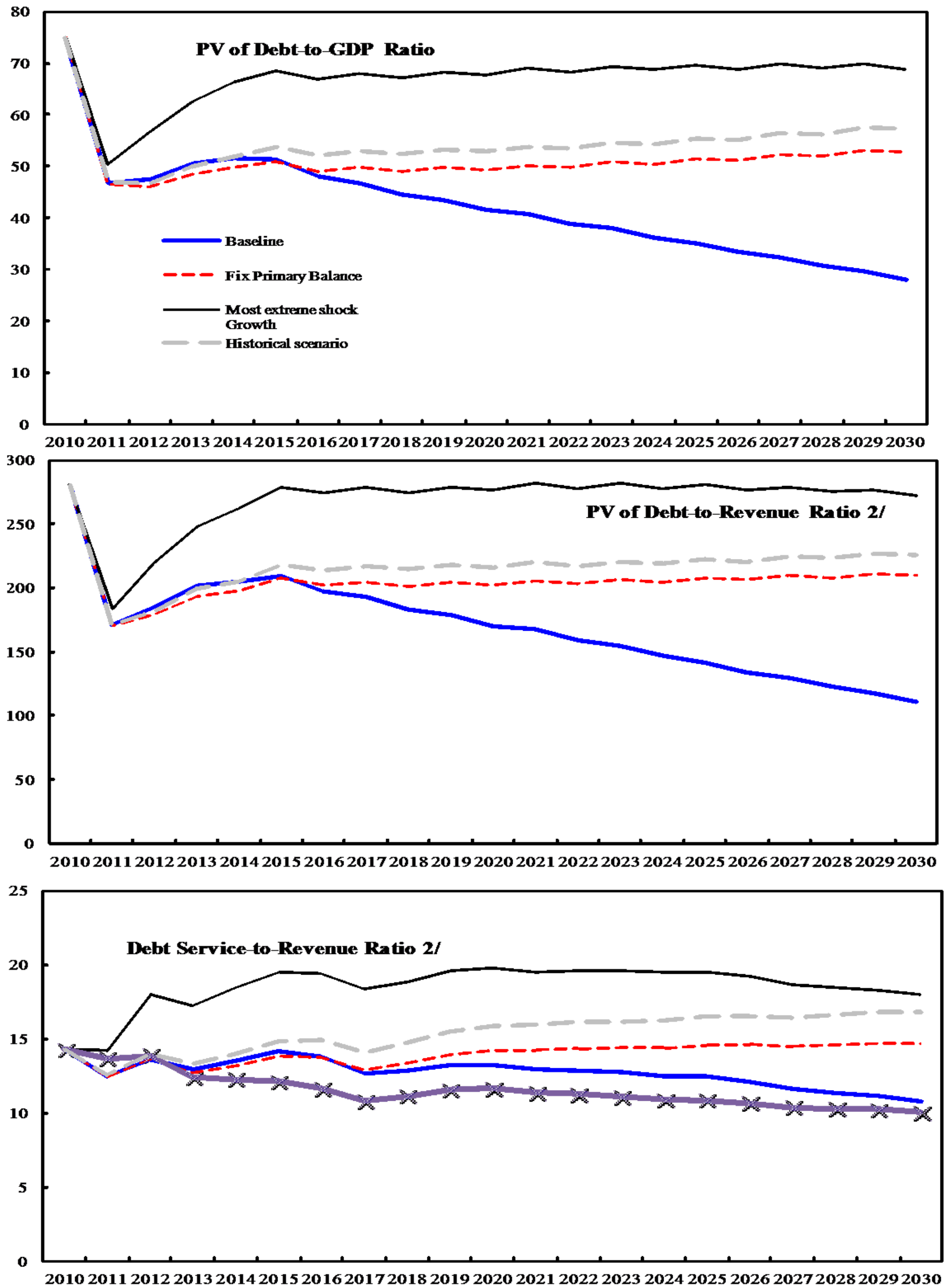
Sources: Country authorities; and staff estimates and projections.
1/ Non-financial public sector gross debt.
2/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.
3/ Revenues excluding grants.
4/ Debt service is defined 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 2010–30

	Projections							
	2010	2011	2012	2013	2014	2015	2020	2030
PV of Debt-to-GDP Ratio								
Baseline	75	47	48	51	52	51	42	28
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	75	47	47	50	52	54	53	57
A2. Primary balance is unchanged from 2010	75	47	46	49	50	51	49	53
A3. Permanently lower GDP growth 1/	75	47	49	53	55	56	54	66
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	75	50	57	62	66	69	68	69
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	75	60	72	75	76	76	62	43
B3. Combination of B1-B2 using one half standard deviation shocks	75	55	62	67	70	71	66	60
B4. One-time 30 percent real depreciation in 2011	75	73	71	73	73	73	59	43
B5. 10 percent of GDP increase in other debt-creating flows in 2011	75	57	57	60	61	61	50	34
PV of Debt-to-Revenue Ratio 2/								
Baseline	281	171	185	202	205	209	170	111
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	281	171	182	199	205	218	215	226
A2. Primary balance is unchanged from 2010	281	170	180	194	198	208	202	210
A3. Permanently lower GDP growth 1/	281	172	190	210	218	227	220	260
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	281	183	220	248	262	278	276	272
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	281	219	281	300	303	310	255	170
B3. Combination of B1-B2 using one half standard deviation shocks	281	199	241	266	276	290	269	236
B4. One-time 30 percent real depreciation in 2011	281	266	276	291	291	297	241	172
B5. 10 percent of GDP increase in other debt-creating flows in 2011	281	207	222	240	243	248	203	134
Debt Service-to-Revenue Ratio 2/								
Baseline	14	12	14	13	14	14	13	11
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	14	13	14	13	14	15	16	17
A2. Primary balance is unchanged from 2010	14	12	14	13	13	14	14	15
A3. Permanently lower GDP growth 1/	14	13	14	13	14	15	15	18
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	14	13	15	15	16	17	18	19
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	14	12	16	17	18	18	17	14
B3. Combination of B1-B2 using one half standard deviation shocks	14	13	16	16	17	17	17	17
B4. One-time 30 percent real depreciation in 2011	14	14	18	17	18	20	20	18
B5. 10 percent of GDP increase in other debt-creating flows in 2011	14	12	15	15	15	16	15	12

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.

Figure 2.Mauritania: Indicators of Public Debt Under Alternative Scenarios, 2010–30 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2020.

2/ Revenues are defined inclusive of grants.