

INTERNATIONAL DEVELOPMENT ASSOCIATION
INTERNATIONAL MONEYTARY FUND
ISLAMIC REPUBLIC OF MAURITANIA

Joint-Bank Fund Debt Sustainability Analysis

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Mauritania's risk of debt distress is rated high due to a breach of the debt-to-GDP ratio threshold under the baseline scenario. This represents a downgrade from the moderate risk of debt distress at the time of the 2012 Debt Sustainability Analysis. The downgrade is mostly due to a combination of higher projected debt disbursements and a more stringent level of the policy-dependent debt thresholds as measured by the World Bank CPIA score. The expected resolution of bilateral debt relief with Kuwait and a hike in export-led growth are projected to lower Mauritania's debt level and enhance the capacity of carrying debt over the next years; however, strengthening the quality of policies and institutions—and particularly debt management capacity—will prove critical to rapidly revert to a moderate risk of debt distress. Overall, external debt dynamics tend to follow public debt dynamics, while private sector debt represents a modest portion of external debt.

I. INTRODUCTION

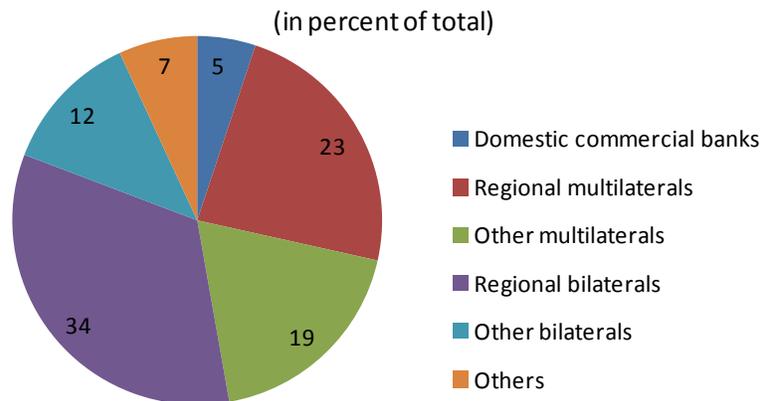
Risk of external debt distress:	High
Augmented by significant risks stemming from domestic public and/or private external debt?	No

II. BACKGROUND

1. **Debt level remains elevated and mostly represented by public and publicly guaranteed (PPG) debt.** Private sector's access to finance remains limited. Public debt is mostly of an external nature, in the form of official lending with multilateral or bilateral institutions at concessional terms. Debt peaked during 2012 as the central government put in place large investment projects to address Mauritania's infrastructure gap. The public and publicly guaranteed (PPG) debt includes the debt of the central government, central bank and few state-owned enterprises (SOEs); and it is mainly constituted of external debt as the domestic debt is small. The non-publicly guaranteed external debt includes the state-owned mining company SNIM (which does not need government guarantees) and commercial banks' debt. In 2012, the PPG external debt rose 7 percentage GDP points to 73½ percent of GDP (2012) due to higher external debt disbursements for the central government financing of large infrastructure projects and it is projected to decline to about 52 percent of GDP over the medium term. The non-publicly guaranteed external debt, at 17 percent of GDP in 2013, has recently increased as SNIM has borrowed externally to finance its mining expansion plans.

2. **Mauritania's debt structure remains broadly sound.** Despite its high level, Mauritania's debt structure remains solid. Debt is contracted with bilateral and multilateral institutions, a stable creditor base, and mostly at concessional terms. Multilateral and bilateral creditors account for 42 and 46 percent of total debt, respectively. Mauritania's exposure to regional Arab lenders, with about 60 percent of the total debt portfolio, could make it vulnerable to a change in their lending policies. Its debt structure includes very limited guaranteed borrowing by SOEs and debt is contracted on fixed terms, with long maturities. Sources of risks in the debt structure relate to foreign currency exposure due to the size of the external debt, as 95 percent of its debt stock is denominated in foreign currency (mainly US dollar, Kuwaiti Dinar, and SDR). Domestic debt remains small (about 5 percent of stock) and consists of treasury bills for budgetary and liquidity management purposes. It is, nevertheless, issued at short maturity (up to six months) with some limited rollover risks. The debt service profile remains stable and relatively benign, but a term-of trade shock could hamper Mauritania's ability to servicing its external debt.

Chart 1: Creditor base, 2013



Source: National authorities and IMF staff calculation

3. **The authorities are actively seeking debt relief from Kuwait.** An agreement has not yet been reached on this longstanding issue between the Kuwait Investment Authority (KIA) and Mauritania. Both parties are seeking agreement about the valuation of the passive debt, including interest in arrears. In accordance with Paris Club's debt relief, Mauritania is seeking comparability of treatment consistent with the HIPC Initiative.

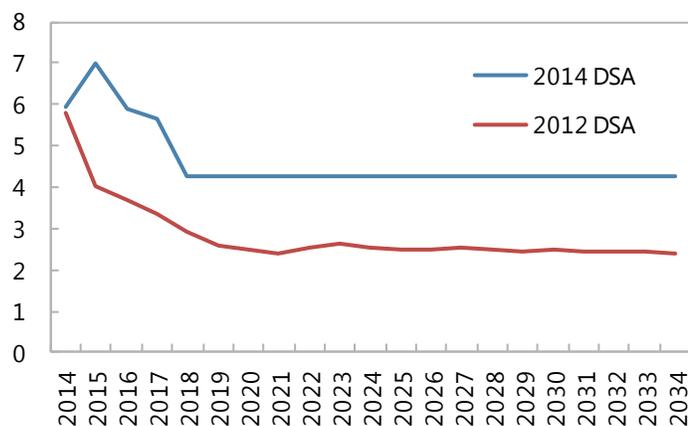
III. UNDERLYING ASSUMPTIONS

4. **This debt sustainability analysis (DSA) updates the join IMF-World Bank DSA produced in June 2012 for the fourth review under the Extended Credit Facility (ECF).** The previous DSA concluded that the risk of debt distress was moderate but borderline high. It also highlighted that the debt dynamics were subject to risks emanating from country vulnerability to fiscal, FDI, exchange rate fluctuations and growth shocks, underscoring the need to continue improving debt management to safeguard medium-term sustainability. Key changes to the DSA inputs since the last exercise are as follows:

- **Real GDP growth** is expected to be higher mainly due to a large expansion in the extractive industry and in particular in iron mining. Existing and new producers are already undergoing a large expansion of mining capacity which will increase production capacity from 11,000 to 18,000 tons by 2016. Another planned expansion will bring the country's extraction capacity to over 60,000 tons by 2025. The mining projects result in a pronounced hump-shaped investment plan that will boost growth dynamics over the medium and long term. In addition, scaled-up public investment in agriculture aims at doubling the arable land.

- **Current account balances** in the long run have been revised to account for the more ambitious mining expansion plans that could triple iron ore exports over the next ten years against forecasts of a much smaller 40 percent hike in the last DSA. In particular, during 2016-20, substantial FDI-financed current account deficits are projected as the mining capacity is expanded; to be followed by a sharp improvement as investment-related imports abate and exports expand, before stabilizing at a long-run level marginally better than forecast in the 2012 DSA (between 4 and 5 percent of GDP).
- **Level of GDP** has been revised upwards as the authorities improved the national account statistics with the help of technical assistance from the AFRITAC West. On average, GDP has increased by about 20 percent compared to previously reported GDP series used in the previous DSA. Average real GDP growth will average 7 percent over the medium term and expected to anchor around 6 percent afterwards.
- **Metal prices** have considerably changed since the previous DSA. Mauritania benefitted until recently from high iron ore prices and positive terms of trade. Iron prices sharply decreased during 2014 both due to a rise in global mining capacity and lower global demand (mainly driven by the heightened uncertainty associated with China and Europe's growth prospects). Medium-term projections suggest iron ore prices about 32 percent lower than forecasted at the time of the 2012 DSA (at US\$72 per ton). Therefore, medium-run terms of trade are therefore expected to deteriorate relative to the expectations at the time of the last DSA.
- **Public financing needs** have increased as the authorities have embarked on a program of public investments, with central government capital expenditure averaging over 12 percent of non-extractive GDP in the coming years (up from 9 percent in 2011). Projected new debt disbursements have been revised upwards starting in 2015, when they will reach around USD 360 million (7 percent of GDP). They will gradually decline afterwards to stabilize at about 4 percent of GDP by 2018. It is envisaged that most of the initial new borrowing will be on concessional terms, with the share of non-concessional borrowing in the total growing over the forecast horizon.

Projected new debt disbursements, percent of GDP



Source: IMF staff. Note: Both series use updated GDP projections

- **CPIA** scores determine a country's quality of policies and institutions which, in turn, affect debt thresholds against which the various debt ratios calculated in the DSA are compared. The CPIA score of Mauritania has reported significant gains in the institutional environment since

2011. However, the DSA considers a three-year moving average of the CPIA score and small fluctuations in the moving average have to be maintained for at least 2 years to have an effect on the DSA.¹ According to this rule, Mauritania's debt ratio thresholds have moved down to the weak institutional performers in this DSA due to the lagged impact of the low CPIA score the country received in 2011. This includes a move

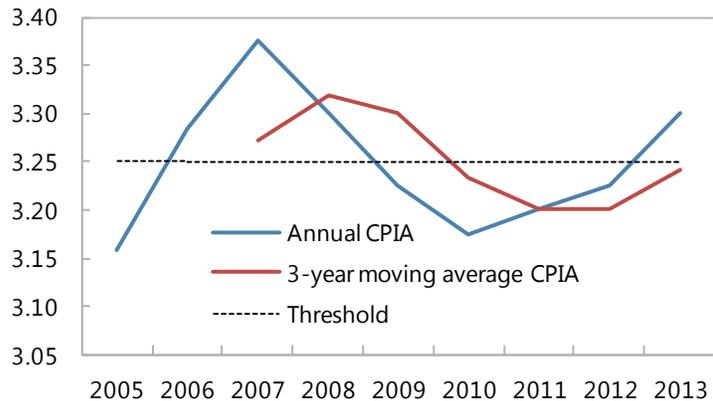
from 40 to 30 percentage points for the ratio of the present value of PPG external debt to GDP. The latest three-year average CPIA score (at 3.24 for 2011-13) has now been below the threshold for weak performers of 3.25 for over two years (which had not been the case at the time of the 2012 DSA). This precipitated the reclassification.²

- **KIA debt relief** is assumed to take place in 2015 and incorporated into the analysis since Mauritania had reached the HIPC completion point. The last DSA assumed the debt relief to take place in 2012.

IV. EXTERNAL DEBT SUSTAINABILITY ASSESSMENT

5. **PPG external debt ratios remain below indicative thresholds in the baseline scenario over the medium term except for the debt-to-GDP ratio** (Figure 1 and Tables 1 and 2). The debt profile of the country has improved relative to the 2012 DSA despite the higher projected disbursements mainly due to the upward revision of the GDP³. Yet under the baseline scenario, the ratio of PV of PPG external debt to GDP breaches its threshold through 2025 because this threshold has been lowered to 30 percent from 40 percent due to the reclassification of the country's institutional quality. The ratio will reach slightly over 39 percent in 2015-16 (after a decline due to the assumed KIA debt relief) and then decline slowly to stabilize at around 35 percent. The decrease over time is driven by the pick-up in exports which

Mauritania: Annual and 3-year moving average CPIA



Source: World Bank.

¹ The methodology is described in <https://www.imf.org/external/np/pp/eng/2013/110513.pdf>. The new methodology incorporates, among others, revised debt thresholds and benchmarks for public sector debt, and revised guidance for the incorporation of remittances in the DSA. The latter is, however, not relevant in Mauritania due to low private remittances.

² The use of the 3-year moving average aims at avoiding frequent changes in the risk of external debt distress ratings as a result of small changes in the CPIA around the thresholds used to determine the institutional quality classification. If only the current CPIA rating (at 3.3) were used, Mauritania would have maintained the moderate risk of debt distress.

³ With the new national accounts, GDP numbers have been revised upwards by 20 percent on average, and the 2013 PPG external debt-to-GDP ratio has been revised from 84 percent to 69.2 percent.

will translate into both stronger growth and fiscal revenues. The breach of the relevant threshold by the ratio of PV of PPG external debt to GDP is, at over 9 percentage points in 2015, somewhat larger but much more sustained than the breach of the threshold for the same ratio in the 2012 DSA.

6. **Standardized stress tests lead to breaches of three debt ratio thresholds and point to the vulnerability of projected debt reduction** to both domestic and external factors. A currency devaluation and failure to secure the projected non-debt creating flows would be particularly damaging to the ratios, even though the latter would probably be partially offset by lower imports.

7. **The historical scenario produces unrealistically large swings in the level of projected external debt.** This result is driven by the large discrepancy between changes in external debt and identified net debt-creating flows in the baseline scenario. This scenario involves a substantial change in the current account balance from a large FDI-financed deficit while the mining capacity is being expanded in the short run to a much diminished one once mining exports have increased. A large portion of the projected current account deficits in the short run will be financed by SNIM and a substantial share of the improvement in current account balances in the medium run will accrue to SNIM. The former will not raise the PPG external debt and the latter will not be necessarily used to rapidly decrease the external indebtedness of the sovereign. The large residuals in the analysis arise from the fact that a large share of SNIM's project financing as well as use of the resulting higher export proceeds is unlikely to fall under the identified net debt-creating flow categories, which include non-interest current account balance.

8. **The outlook for overall external debt has worsened in absolute terms compared to the last DSA.** This can be attributed to the public external borrowing disbursements planned for infrastructure projects as well as increased borrowing from SNIM—whose significant debt-financed expansion plans could further raise external debt vulnerabilities. In addition, the 2012 DSA assumed that the now-delayed KIA debt relief would have been completed by this point.

V. PUBLIC DEBT SUSTAINABILITY ASSESSMENT

9. **Indicators of overall public debt (external and domestic) and debt service mirrors the vulnerabilities associated with the external debt.** The total public debt mildly breaches its indicative benchmark after the assumed KIA debt relief even though the breach steadily declines over the forecast horizon. The stress scenarios show that this projection is particularly vulnerable to currency depreciation and depends on the materialization of the expected export-led growth.

10. **Overall public debt is largely comprised of PPG external debt.** Almost 90 percent of total public debt in Mauritania is PPG external debt. Domestic public debt has hovered around 5 to 7 percent of GDP and is not a significant contributing factor to the overall public debt level.

VI. CONCLUSION

11. **Mauritania's risk of external debt distress has increased due to a combination of the reclassification of its institutional capacity and higher projected new debt disbursements.** The new institutional capacity classification has resulted in lowering of Mauritania's debt thresholds, including from 40 to 30 percentage points for the ratio of the present value of PPG external debt to GDP. As a result of a baseline breach due to a lower threshold, the risk of debt distress has increased from moderate to high. In addition, the projected disbursement path in the coming years will increase PPG external debt level. The projected KIA debt relief will not, in itself, resolve breaching the threshold for the ratio of PV of PPG external debt to GDP. In the medium term, increased exports and the resulting output growth should decrease the country's debt burden. The outlook would worsen substantially should the projected increases in exports and the subsequent higher growth and improvements in current account balances not materialize, in particular due to delays to or cancellations of mining capacity expansion plans.

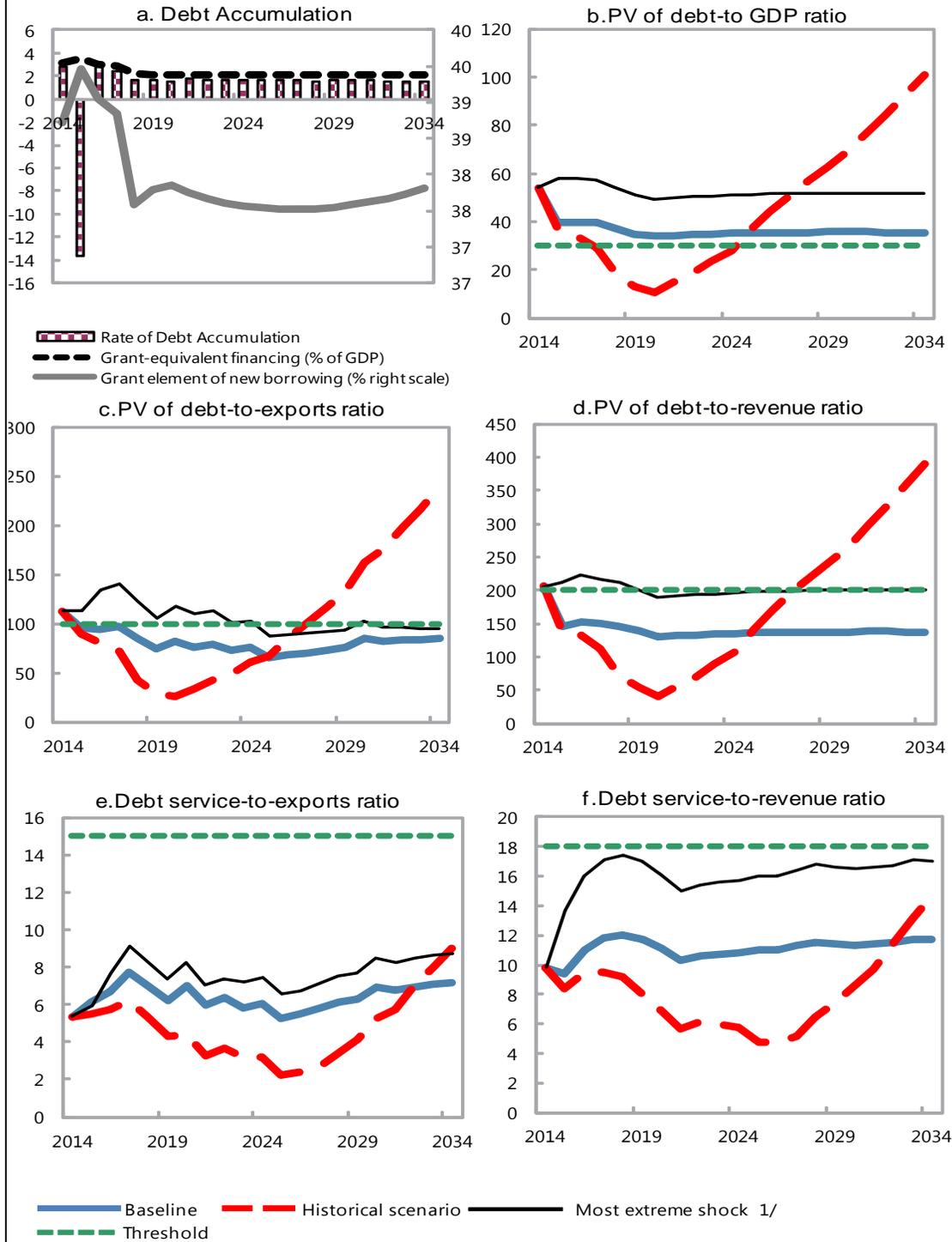
12. **Given the challenges of reducing debt rapidly, Mauritania needs to continue improving its institutional environment to quickly return to a moderate risk of debt distress.** An anticipated debt relief and a hike in export-led growth are projected to lower Mauritania's debt level and enhance the capacity of carrying debt over the next years; but debt management capacity needs to be strengthened. Given that under the baseline a breach of a threshold occurs for the duration of the projection period, Mauritania could gain substantially from a stronger institutional environment to increase the debt tolerance level. Within the categories of institutions considered by the CPIA score, Mauritania has largest scope for improvement in debt policy, financial sector, social protection and transparency in the public sector. The country should therefore, among other measures, redouble its efforts to implement a social protection framework that would help the socially vulnerable. Elsewhere, following the recommendation of the recent FSAP exercise should aid Mauritania in improving its financial sector institutions.

13. **Recent technical assistance from AFRITAC-West provides recommendations to improve debt management practices** which both bear on the overall CPIA score and is directly linked to Mauritania's debt management capacity. The technical assistance mission assessed that debt management in Mauritania is fragmented and the relevant operational responsibilities are shared and duplicated. The authorities should therefore reorganize the functions of the various departments of the Ministry of Economic Affairs and Development, Ministry of Finance and the Central Bank that participate in debt management to increase the efficiency and coordination in debt contraction and management.

14. **The authorities do not agree with the reclassification of the country's quality of policies and institutions into the weak category as a function of the past CPIA scores, which has a direct bearing on the change in the country's risk of external debt distress from medium to high.** In particular, they believe the methodology in the joint Bank-Fund Debt Sustainability Framework for low-income countries places too much weight in its assessment of institutional quality on the past and too little on the present. The country's institutional quality is being downgraded at a point in time when the CPIA has both been increasing for 3 consecutive years and has risen above the 3.25 minimum level

required for medium quality of institutions. This means that the risk of the external debt distress is being increased while the actual institutional quality is improving and the macroeconomic environment remained stable.

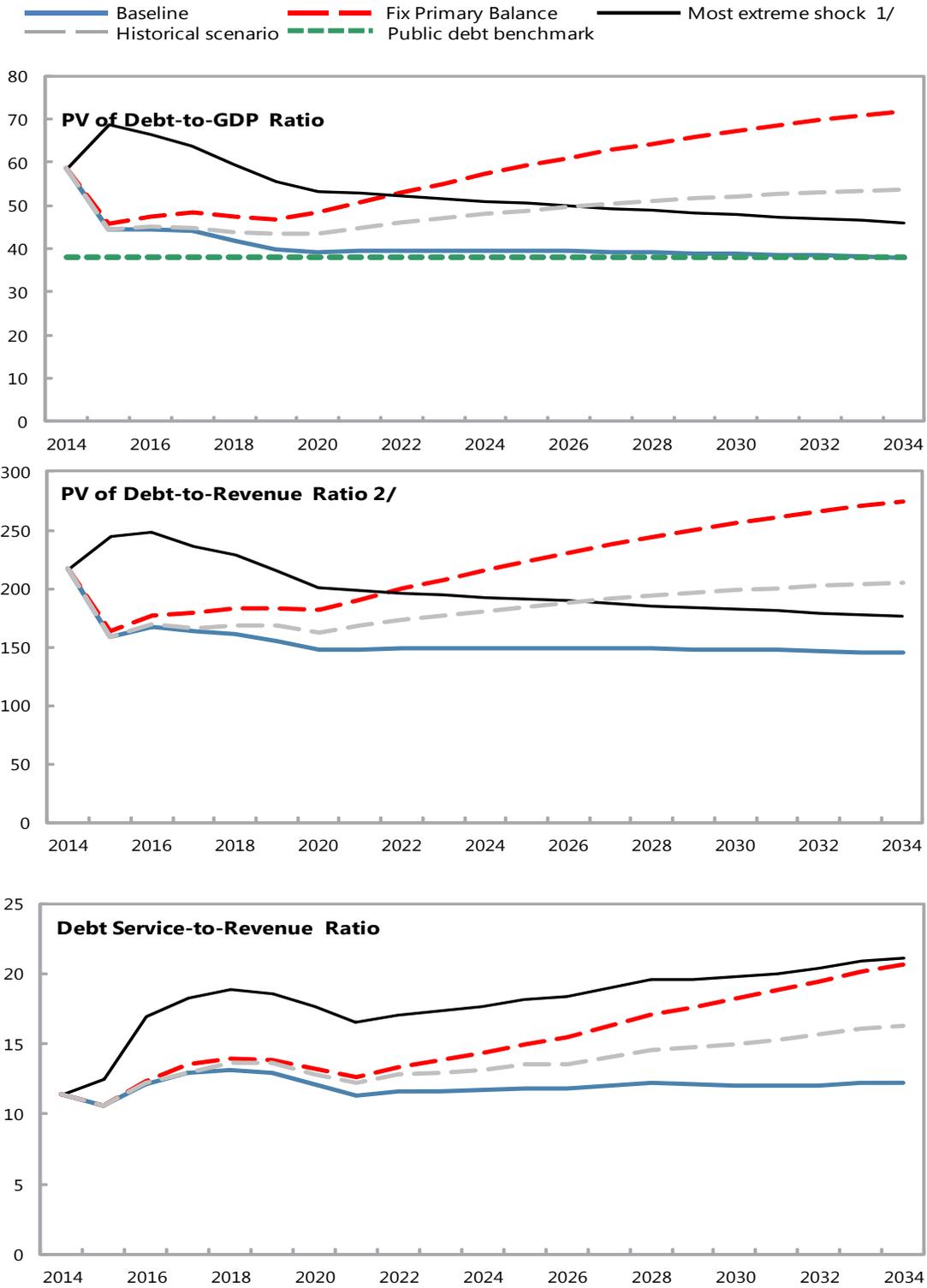
Figure 1. Mauritania: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2014-2034 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2024. In figure b, it corresponds to a One-time depreciation shock; in c, to a Non-debt flows shock; in d, to a One-time depreciation shock; in e, to a Exports shock and in figure f, to a One-time depreciation shock

Figure 2. Mauritania: Indicators of Public Debt Under Alternative Scenarios, 2014-34
1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2024.

2/ Revenues are defined inclusive of grants.

Table 1. Mauritania: External Debt Sustainability Framework, Baseline Scenario, 2011-34 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical ^{6/} Standard ^{6/}		Projections										
	2011	2012	2013	Average	Deviation	2014	2015	2016	2017	2018	2019	2014-2019		2020-2034		
												Average	2024	2034	Average	
External debt (nominal) 1/	75.5	88.9	86.5			90.1	76.2	76.9	78.0	85.6	88.6			72.8	56.1	
<i>of which: public and publicly guaranteed (PPG)</i>	66.7	73.5	69.2			73.7	61.3	61.1	60.5	56.8	53.4			53.2	52.4	
Change in external debt	-5.4	13.5	-2.5			3.6	-13.9	0.7	1.1	7.6	3.0			-3.9	-0.4	
Identified net debt-creating flows	-18.9	2.2	-1.7			4.7	-4.2	2.2	6.0	15.0	6.3			-9.8	-23.4	
Non-interest current account deficit	4.6	25.4	23.3	16.1	13.1	22.9	6.0	21.1	29.6	35.1	20.9			2.1	2.5	2.1
Deficit in balance of goods and services	5.0	28.8	23.7			22.4	9.5	22.2	30.7	36.3	22.0			0.3	2.2	
Exports	58.1	57.9	55.7			47.9	42.0	42.7	40.5	43.7	47.3			46.8	41.9	
Imports	63.1	86.7	79.5			70.3	51.6	64.9	71.2	80.0	69.4			47.1	44.1	
Net current transfers (negative = inflow)	-2.9	-6.6	-2.8	-4.5	1.7	-2.8	-6.4	-2.4	-2.2	-2.0	-1.9			-1.6	-1.4	-1.6
<i>of which: official</i>	-2.3	-5.7	-1.6			-1.6	-5.3	-1.2	-1.1	-1.0	-0.9			-0.7	-0.4	
Other current account flows (negative = net inflow)	2.6	3.3	2.4			3.3	2.9	1.3	1.1	0.8	0.7			3.4	1.7	
Net FDI (negative = inflow)	-11.5	-28.5	-22.1	-13.1	13.4	-14.3	-7.1	-15.7	-21.7	-16.2	-10.3			-9.5	-23.3	-13.3
Endogenous debt dynamics 2/	-12.0	5.3	-2.8			-3.8	-3.1	-3.2	-1.8	-3.9	-4.2			-2.4	-2.6	
Contribution from nominal interest rate	0.5	0.7	1.5			1.7	1.8	1.7	1.7	1.8	2.3			1.9	0.7	
Contribution from real GDP growth	-3.0	-4.8	-4.8			-5.6	-4.9	-4.9	-3.6	-5.7	-6.5			-4.3	-3.2	
Contribution from price and exchange rate changes	-9.5	9.4	0.4			...	...	...	...	...	...			...	...
Residual (3-4) 3/	13.5	11.3	-0.8			-1.1	-9.7	-1.5	-4.9	-7.4	-3.3			5.9	23.0	
<i>of which: exceptional financing</i>	-0.3	1.8	-0.2			0.0	17.0	0.0	0.0	0.0	0.0			0.0	0.0	
PV of external debt 4/	...	...	68.0			70.2	54.7	55.6	56.9	65.9	70.1			54.7	39.0	
In percent of exports	...	...	122.0			146.8	130.3	130.2	140.8	150.9	148.1			117.0	93.0	
PV of PPG external debt	...	...	50.7			53.8	39.8	39.8	39.4	37.1	34.9			35.1	35.3	
In percent of exports	...	...	91.0			112.5	94.8	93.2	97.3	84.9	73.7			75.0	84.2	
In percent of government revenues	...	...	187.5			205.9	145.5	153.1	149.0	145.8	138.2			134.7	137.1	
Debt service-to-exports ratio (in percent)	1.4	2.2	6.3			10.6	12.0	11.8	13.7	13.2	15.6			15.5	7.2	
PPG debt service-to-exports ratio (in percent)	0.0	0.0	3.9			5.4	6.1	6.7	7.7	7.0	6.2			6.0	7.2	
PPG debt service-to-revenue ratio (in percent)	0.0	0.0	8.0			9.8	9.4	11.0	11.8	12.0	11.7			10.8	11.7	
Total gross financing need (Billions of U.S. dollars)	-0.2	0.0	0.4			0.9	0.4	0.8	1.0	1.8	1.5			0.3	-2.1	
Non-interest current account deficit that stabilizes debt ratio	10.0	12.0	25.8			19.3	19.9	20.4	28.4	27.4	17.9			6.0	2.9	
Key macroeconomic assumptions																
Real GDP growth (in percent)	4.4	6.0	5.7	5.7	5.4	6.4	5.5	6.8	5.0	8.0	8.4	6.7	5.8	6.0	5.9	
GDP deflator in US dollar terms (change in percent)	13.3	-11.1	-0.5	7.0	10.3	-6.6	-4.3	0.3	2.2	2.4	2.3	-0.6	-1.6	-1.2	-1.3	
Effective interest rate (percent) 5/	0.7	0.8	1.8	0.5	0.6	2.0	2.0	2.3	2.4	2.5	2.9	2.4	2.6	1.2	2.2	
Growth of exports of G&S (US dollar terms, in percent)	32.9	-6.2	1.3	27.0	35.5	-14.6	-11.4	9.0	1.6	19.4	20.2	4.0	0.7	3.1	3.9	
Growth of imports of G&S (US dollar terms, in percent)	22.5	29.4	-3.6	22.2	29.7	-12.1	-25.9	34.9	17.7	24.3	-3.8	5.9	3.6	4.5	1.7	
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	38.7	39.5	39.0	38.8	37.6	37.8	38.6	37.6	37.8	37.6	
Government revenues (excluding grants, in percent of GDP)	22.0	27.7	27.0			26.2	27.4	26.0	26.4	25.4	25.2			26.1	25.8	26.0
Aid flows (in Billions of US dollars) 7/	0.0	0.2	0.3			0.3	0.4	0.3	0.3	0.3	0.3			0.4	0.6	
<i>of which: Grants</i>	0.0	0.2	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.1	
<i>of which: Concessional loans</i>	0.0	0.0	0.3			0.3	0.3	0.3	0.3	0.2	0.3			0.3	0.5	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			3.2	3.6	3.0	2.9	2.2	2.1			2.1	2.1	2.1
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			46.4	45.4	45.4	44.8	44.5	43.9			42.8	43.0	42.9
Memorandum items:																
Nominal GDP (Billions of US dollars)	5.1	4.8	5.1			5.1	5.1	5.5	5.9	6.5	7.2			9.1	14.0	
Nominal dollar GDP growth	18.2	-5.8	5.2			-0.6	1.0	7.2	7.3	10.6	10.9	6.1	4.1	4.7	4.5	
PV of PPG external debt (in Billions of US dollars)	...	...	2.6			2.7	2.0	2.2	2.3	2.4	2.5			3.2	5.0	
(Pvt-Pvt-1)/GDPT-1 (in percent)	...	...	...			2.8	-13.6	2.8	2.4	1.6	1.6	-0.4	1.7	1.5	1.6	
Gross workers' remittances (Billions of US dollars)	0.0	0.0	0.1			0.1	0.1	0.1	0.1	0.1	0.1			0.1	0.1	
PV of PPG external debt (in percent of GDP + remittances)	...	...	50.2			53.2	39.3	39.3	38.9	36.7	34.5			34.8	35.0	
PV of PPG external debt (in percent of exports + remittances)	...	...	89.2			109.8	92.2	90.7	94.7	82.9	72.1			73.5	82.4	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	3.8			5.2	6.0	6.5	7.5	6.8	6.1			5.9	7.0	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - p(1+g)] / (1+g+p+g)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and p = 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.

Table 2. Mauritania: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2014-34								
(In percent)								
	Projections							
	2014	2015	2016	2017	2018	2019	2024	2034
PV of debt-to GDP ratio								
Baseline	54	40	40	39	37	35	35	35
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2014-2034 1/	54	37	34	29	18	13	28	101
A2. New public sector loans on less favorable terms in 2014-2034 2	54	42	43	44	43	41	47	59
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2015-2016	54	42	45	44	41	39	39	40
B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/	54	39	43	42	40	37	37	36
B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016	54	39	41	40	38	36	36	36
B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/	54	47	58	57	53	50	48	40
B5. Combination of B1-B4 using one-half standard deviation shocks	54	34	33	33	31	29	30	33
B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/	54	58	58	57	54	51	51	51
PV of debt-to-exports ratio								
Baseline	112	95	93	97	85	74	75	84
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2014-2034 1/	112	89	80	73	42	28	60	240
A2. New public sector loans on less favorable terms in 2014-2034 2	112	99	101	109	98	88	101	140
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2015-2016	112	95	93	97	85	74	75	84
B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/	112	90	116	121	105	91	92	99
B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016	112	95	93	97	85	74	75	84
B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/	112	112	135	140	122	106	102	94
B5. Combination of B1-B4 using one-half standard deviation shocks	112	68	64	67	59	51	54	66
B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/	112	95	93	97	85	74	75	84
PV of debt-to-revenue ratio								
Baseline	206	145	153	149	146	138	135	137
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2014-2034 1/	206	136	131	111	72	53	108	391
A2. New public sector loans on less favorable terms in 2014-2034 2	206	152	166	167	168	164	182	228
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2015-2016	206	153	171	167	163	155	151	153
B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/	206	142	164	160	156	148	143	140
B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016	206	144	157	153	150	142	138	141
B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/	206	173	221	214	210	199	183	154
B5. Combination of B1-B4 using one-half standard deviation shocks	206	124	128	125	123	116	117	130
B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/	206	212	223	217	212	201	196	200

Table 2. Mauritania: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2014-34 (continued)								
(In percent)								
Debt service-to-exports ratio								
Baseline	5	6	7	8	7	6	6	7
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2014-2034 1/	5	5	6	6	5	4	3	9
A2. New public sector loans on less favorable terms in 2014-2034 2	5	6	6	7	7	6	7	12
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2015-2016	5	6	7	8	7	6	6	7
B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/	5	6	8	9	8	7	7	9
B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016	5	6	7	8	7	6	6	7
B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/	5	6	7	9	8	7	9	9
B5. Combination of B1-B4 using one-half standard deviation shocks	5	5	5	6	5	5	4	5
B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/	5	6	7	8	7	6	6	7
Debt service-to-revenue ratio								
Baseline	10	9	11	12	12	12	11	12
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2014-2034 1/	10	8	9	9	9	8	6	15
A2. New public sector loans on less favorable terms in 2014-2034 2	10	9	11	11	12	12	13	19
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2015-2016	10	10	12	13	13	13	12	13
B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/	10	9	11	12	12	12	12	12
B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016	10	9	11	12	12	12	11	12
B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/	10	9	12	13	14	13	16	15
B5. Combination of B1-B4 using one-half standard deviation shocks	10	9	10	11	11	11	9	10
B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/	10	14	16	17	17	17	16	17
<i>Memorandum item:</i>								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	32	32	32	32	32	32	32	32
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, 2011-34
(In percent of GDP, unless otherwise indicated)

	Actual			Average ^{5/}	Standard Deviation ^{5/}	Estimate					Projections			
	2011	2012	2013			2014	2015	2016	2017	2018	2019	2014-19 Average	2024	2034	2020-34 Average
Public sector debt 1/	72.2	79.4	73.7			78.4	66.0	65.9	65.2	61.6	58.4		57.5	54.9
<i>of which: foreign-currency denominated</i>	66.7	73.5	69.2			73.7	61.3	61.1	60.5	56.8	53.4		53.2	52.4
Change in public sector debt	-8.4	7.2	-5.7			4.7	-12.4	-0.2	-0.6	-3.6	-3.2		0.0	-0.4
Identified debt-creating flows	-12.2	1.5	-4.2			3.4	-16.9	-3.8	-3.8	-5.6	-5.9		-2.7	-2.5
Primary deficit	-0.4	-2.7	0.0	0.1	2.6	2.0	0.1	-0.3	-0.3	-0.3	-0.7	0.1	-1.2	-0.7
Revenue and grants	22.5	32.4	27.8			27.0	28.1	26.7	27.0	26.0	25.7		26.5	26.2
<i>of which: grants</i>	0.5	4.7	0.7			0.8	0.8	0.7	0.6	0.5	0.5		0.4	0.4
Primary (noninterest) expenditure	22.1	29.7	27.8			29.0	28.2	26.3	26.7	25.7	25.0		25.2	25.4
Automatic debt dynamics	-11.8	4.1	-4.2			1.4	0.1	-3.5	-3.5	-5.3	-5.2		-1.4	-1.7
Contribution from interest rate/growth differential	-4.8	-4.5	-4.4			-4.2	-4.3	-4.4	-3.4	-5.1	-5.0		-2.3	-2.3
<i>of which: contribution from average real interest rate</i>	-1.4	-0.4	-0.1			0.2	-0.3	-0.1	-0.3	-0.3	-0.2		0.9	0.8
<i>of which: contribution from real GDP growth</i>	-3.4	-4.1	-4.3			-4.4	-4.1	-4.2	-3.1	-4.8	-4.8		-3.2	-3.1
Contribution from real exchange rate depreciation	-7.0	8.6	0.2			5.6	4.4	0.9	-0.1	-0.2	-0.1		...	...
Other identified debt-creating flows	0.0	0.0	0.0			0.0	-17.0	0.0	0.0	0.0	0.0		0.0	0.0
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Recognition of implicit or contingent liabilities	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Debt relief (HIPC and other)	0.0	0.0	0.0			0.0	-17.0	0.0	0.0	0.0	0.0		0.0	0.0
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Residual, including asset changes	3.8	5.7	-1.5			1.3	4.5	3.7	3.2	2.0	2.7		2.6	2.1
Other Sustainability Indicators														
PV of public sector debt	...	...	55.2			58.5	44.6	44.5	44.1	41.9	39.9		39.4	37.9
<i>of which: foreign-currency denominated</i>	...	...	50.7			53.8	39.8	39.8	39.4	37.1	34.9		35.1	35.3
<i>of which: external</i>	...	...	50.7			53.8	39.8	39.8	39.4	37.1	34.9		35.1	35.3
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 2/	9.1	3.2	8.1			9.5	7.5	7.2	7.5	7.3	6.8		6.2	5.0
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	198.7			216.8	158.4	166.9	163.2	161.3	155.3		149.1	144.7
PV of public sector debt-to-revenue ratio (in percent)	...	...	204.2			223.9	162.9	171.3	167.1	164.8	158.2		151.4	147.0
<i>of which: external 3/</i>	...	...	187.5			205.9	145.5	153.1	149.0	145.8	138.2		134.7	137.1
Debt service-to-revenue and grants ratio (in percent) 4/	14.2	1.2	9.3			11.4	10.6	12.1	12.9	13.2	12.9		11.7	12.2
Debt service-to-revenue ratio (in percent) 4/	14.5	1.4	9.5			11.7	10.9	12.5	13.2	13.4	13.1		11.9	12.4
Primary deficit that stabilizes the debt-to-GDP ratio	7.9	-9.8	5.7			-2.8	12.5	-0.2	0.3	3.3	2.4		-1.2	-0.4
Key macroeconomic and fiscal assumptions														
Real GDP growth (in percent)	4.4	6.0	5.7	5.7	5.4	6.4	5.5	6.8	5.0	8.0	8.4	6.7	5.8	6.0
Average nominal interest rate on forex debt (in percent)	0.0	0.0	1.0	0.1	0.3	1.1	1.1	1.4	1.5	1.5	1.5	1.3	1.4	1.3
Average real interest rate on domestic debt (in percent)	-7.2	9.8	4.1	3.8	8.8	12.9	4.7	2.5	1.1	1.0	1.2	3.9	5.1	5.2
Real exchange rate depreciation (in percent, + indicates depreciation)	-10.1	13.9	0.3	-4.0	7.9	8.7	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	15.3	-5.8	0.1	8.2	8.3	-5.3	0.5	2.4	4.2	4.6	4.5	1.8	-0.5	-0.2
Growth of real primary spending (deflated by GDP deflator, in percent)	5.3	42.8	-1.2	6.7	16.1	11.0	2.6	-0.2	6.6	3.7	5.5	4.9	5.9	6.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	38.7	39.5	39.0	38.8	37.6	37.8	38.6	37.6	37.8

Sources: Country authorities; and staff estimates and projections.

1/ [Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net or gross debt is used.]

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

3/ Revenues excluding grants.

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

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

Table 4. Mauritania: Sensitivity Analysis for Key Indicators of Public Debt 2014-34								
	Projections							
	2014	2015	2016	2017	2018	2019	2024	2034
PV of Debt-to-GDP Ratio								
Baseline	59	45	45	44	42	40	39	38
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	59	45	45	45	44	43	48	54
A2. Primary balance is unchanged from 2014	59	46	47	48	47	47	57	72
A3. Permanently lower GDP growth 1/	59	45	46	47	46	45	55	91
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2015-2016	59	48	53	54	54	53	63	78
B2. Primary balance is at historical average minus one standard deviations in 2015-2016	59	46	48	48	45	43	43	40
B3. Combination of B1-B2 using one half standard deviation shocks	59	47	49	50	48	47	52	59
B4. One-time 30 percent real depreciation in 2015	59	69	66	64	59	55	51	46
B5. 10 percent of GDP increase in other debt-creating flows in 2015	59	51	51	50	48	45	45	42
PV of Debt-to-Revenue Ratio 2/								
Baseline	217	158	167	163	161	155	149	145
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	217	158	170	166	168	168	181	204
A2. Primary balance is unchanged from 2014	217	163	177	179	182	182	216	274
A3. Permanently lower GDP growth 1/	217	161	173	173	176	175	208	347
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2015-2016	217	170	198	201	206	206	236	297
B2. Primary balance is at historical average minus one standard deviations in 2015-2016	217	165	181	177	174	168	161	154
B3. Combination of B1-B2 using one half standard deviation shocks	217	165	185	185	186	183	196	225
B4. One-time 30 percent real depreciation in 2015	217	244	248	236	228	215	193	176
B5. 10 percent of GDP increase in other debt-creating flows in 2015	217	182	191	186	184	177	169	160
Debt Service-to-Revenue Ratio 2/								
Baseline	11	11	12	13	13	13	12	12
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	11	11	12	13	14	14	13	16
A2. Primary balance is unchanged from 2014	11	11	12	13	14	14	14	21
A3. Permanently lower GDP growth 1/	11	11	12	13	14	14	14	24
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2015-2016	11	11	14	15	16	16	16	22
B2. Primary balance is at historical average minus one standard deviations in 2015-2016	11	11	12	14	14	13	13	13
B3. Combination of B1-B2 using one half standard deviation shocks	11	11	13	14	15	14	14	18
B4. One-time 30 percent real depreciation in 2015	11	12	17	18	19	19	18	21
B5. 10 percent of GDP increase in other debt-creating flows in 2015	11	11	13	15	14	14	13	14
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.								