INTERNATIONAL MONETARY FUND

ISLAMIC REPUBLIC OF MAURITANIA

STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITYANALYSIS

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Approved By
Daniela Gressani and Peter Allum (IMF) and John Panzer (IDA)

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

Mauritania's risk of debt distress is rated high due to substantial and persistent breaches of all but one threshold under the baseline scenario. The outlook has worsened compared to the debt sustainability analysis prepared at the time of the 2014 Article IV Consultation owing to a worse-than-anticipated terms-of-trade deterioration that has decreased growth and export prospects. Further pressure results from debt disbursements which have been revised upwards over the medium term in line with the public investment plan. Although the PV of debt-to-GDP ratio declines in the long run due to a recovery in growth rates, the ratio remains high because of disbursements linked to public infrastructure projects.

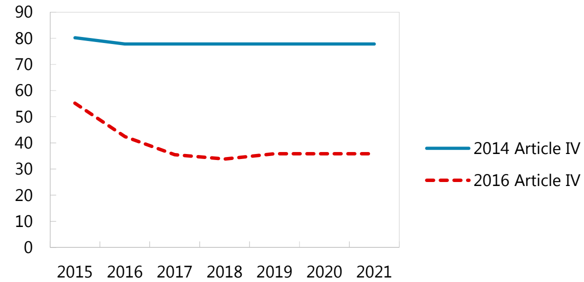
INTRODUCTION

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

BACKGROUND

1. **The outlook has worsened since the 2014 Article IV consultation.** This is reflected in the deterioration of debt distress indicators. Compared to the 2014 Article IV, iron ore prices were 31 percent lower in 2015 and, based on the latest WEO projections, 45 percent lower for 2016 and around 54 percent onward. Despite lower oil prices, the terms of trade deterioration in 2015 was approximately three times as severe as the projection in the 2014 Article IV. The actual external PPG debt to GDP ratio for 2015 was 7.3 percentage points higher than projected, and projections for 2016–19 have been revised upward. These revisions are due to higher disbursements mainly associated with new public investment projects; the PPG debt-to-GDP ratio has been increased by 16.5 percentage points in 2016 and is 49 percentage points higher in 2021 compared to the levels projected at the time of the 2014 Article IV consultation**.**

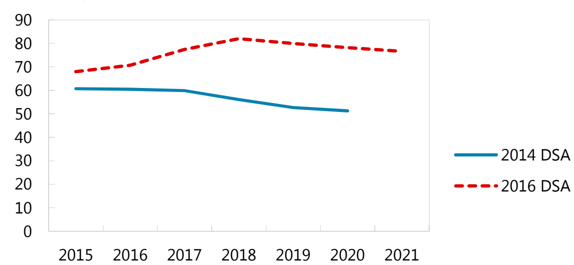
Price of Iron Ore
(US$/Ton)



Source: WEO.

2. **Mauritania's external debt is high and largely composed of public debt contracted on concessional terms.** PPG debt represents over 90 percent of total external debt and includes debt contracted by the central government, the central bank and SOEs, mainly SOMELEC, the state-owned electricity company. PPG debt excludes SNIM, the public mining company, which is run on a commercial basis and borrows without government guarantees.[1] External PPG debt is exposed to exchange rate risks and mostly linked to U.S. dollar developments: 27 percent of the debt is U.S. dollar denominated and about 32 percent is denominated in Kuwaiti Dinar, Saudi dinar and other currencies pegged to the U.S. dollar.

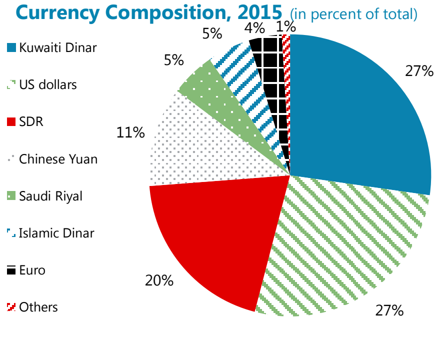
PPG External Debt 1/
(In percent of GDP)



1/ Debt relief from Kuwait under the HIPC-MDRI is assumed.
Sources: Data from authorities; and IMF staff estimates.

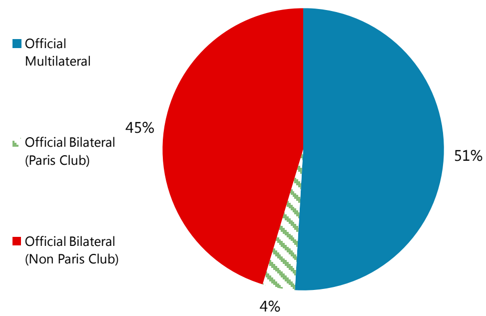
[1] Though SNIM borrows without government guarantees, its debt could become a contingent liability to the central government (See paragraph 11, Annex II).

External Debt of the Central Government: Currency Composition, 2015 (in percent of total)



Sources: Authorities data.

External Debt of the Central Government: Creditor Composition, 2015 (in percent of total)



Sources: Authorities data.

3. **External PPG debt-to GDP ratios have increased markedly since 2014.** The central government has increased external debt financing for public investment. Although external PPG debt is held predominantly by official creditors and largely on concessional terms, the central bank contracted a loan (6.3 percent of GDP) in 2015 to support the reserve position that is non-concessional because of its relatively short maturity (7 years). This non-concessional loan exposes Mauritania to rollover risks given its short maturity profile. In 2014, external PPG debt rose by 12.6 percentage points to 80.4 percent of GDP and, in 2015, by 12.9 percentage points of to 93.3 percent of GDP. Private external debt is projected to decline to 14.8 percent of GDP in 2016 from 15.6 percent of GDP in 2015. Movements in private external debt are driven by changes in borrowing by SNIM.

4. **The authorities are actively seeking debt relief from Kuwait.** An agreement has not yet been reached between the Kuwait Investment Authority (KIA) and Mauritania to address this longstanding issue. Both parties are seeking agreement about valuation, including interest in arrears. According to the 2002 Paris Club Agreement, Mauritania was expected to seek debt relief on comparable terms from non-Paris Club Creditors.

UNDERLYING ASSUMPTIONS

5. **This debt sustainability analysis updates the joint IMF-World Bank DSA produced in January 2014 for the Article VI consultation**. Key changes to the DSA assumptions since the previous exercise are as follows:

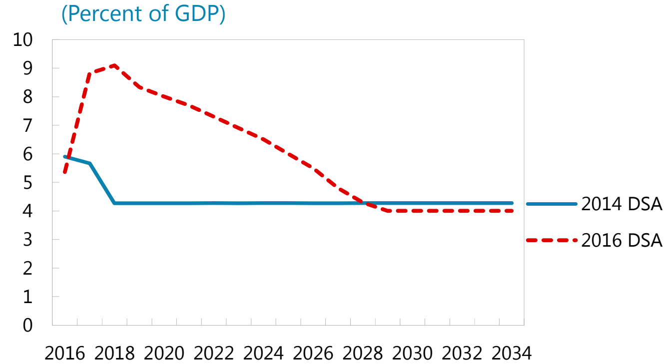
- **Real GDP growth rates** are between 1 and 6 percentage points lower over the medium term, as a result of lower iron ore prices putting the mining expansion envisaged under the 2014 Article IV consultation on hold.
- **Metal prices** have significantly declined and are projected to remain low over the medium term. Compared to the 2014 Article IV consultation, on average over the medium term iron ore prices are projected to be 54 percent lower, gold prices about 2 percent lower and copper prices about 24 percent lower.

- **Current account deficits** are projected to decline by 5.7 percentage points of GDP in 2016 led by lower oil prices, only to increase by 2.2 percentage points of GDP in 2017 because of an increase in imports related to investment projects needed to bolster production in the context of lower iron ore prices. Over the medium term, the current account deficit is envisaged to narrow to 10.5 percent of GDP driven by lower imports associated with the extractive industry and increased volumes of iron ore exports.

- **Public financing needs** are set to remain elevated over the medium term. This is caused by declines in revenues (around 3percentage points of GDP by 2021) and a large public investment program that sets average capital expenditure to 14 percent of GDP. Beyond 2028, debt disbursements are projected to stabilize at around 4 percent of GDP. Annual external financing requirements, although declining, are projected at an average 18 percent of GDP over the medium term, maintaining rollover risks elevated.

Projected New Debt Disbursements

(Percent of GDP)



Source: IMF staff estimates.

- **The average grant element** of new disbursements is assumed to be constant over time. It is envisaged that most of the new borrowing will be on concessional terms. Some loans are assumed to be non-concessional making the average grant element just short of the 35 percent benchmark for concessionality. A lower grant element will increase debt service due to higher borrowing costs.

- **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 reflected significant gains in the institutional environment since 2011, and stands at 3.4 for 2014 (latest available), bringing the 3-year moving average to 3.3. As such, the 30 percentage point threshold for the ratio of the present value of PPG external debt to GDP remains valid.

- **KIA debt relief** is assumed to take place in 2016 and incorporated into the analysis since Mauritania had reached the HIPC completion point. According to the authorities' latest data, the KIA passive debt is evaluated according to the authorities at US$977 million (21.5 percent of GDP—driving the large reduction in the public and external debt-to-GDP ratios in 2016).[2] The previous DSA assumed the debt relief to take place in 2015.

[2] Estimates of the passive debt vary widely depending on underlying assumptions regarding the (non-) capitalization of interest arrears and the interest rate used for calculating the current value of arrears.

EXTERNAL DEBT SUSTAINABILITY ASSESSMENT

6. The baseline projections breach their respective thresholds for all indicators except one. Improvements in the path of the PV of debt-to GDP ratio over the projection period are driven by a pickup in GDP as disbursements are projected to remain on an increasing path. The debt service-to-revenue ratio peaks at 23.8 percent in 2020. Staff project the ratio to decline gradually after 2023 because of pickup in growth dynamics and hence government revenues.

7. Standardized stress tests lead to breaches of thresholds for all indicators. Stress tests highlight vulnerabilities to shocks to exports and to exchange rate depreciation.

8. Debt distress indicators decline over the long run because of improved growth. Over the medium term, the PPG debt-to-GDP ratio increases by 5 percentage points, peaking at 82 percent of GDP by 2018, to later decline to its 2016 level. The hump-shaped medium-term dynamics are due to increasing disbursements in the context of subdued growth dynamics. Debt disbursements are driven by project-financing to address Mauritania's infrastructure gap and increasing growth potential over the long run. Stronger growth over the long run puts the debt-to-GDP ratio on a declining path.

9. The historical scenario produces unrealistically large swings in projected external debt. This scenario involves a substantial change in the current account balance due to structural changes of the economy, namely shifting from a large FDI-financed deficit—while the mining capacity was being expanded— to a reduced CA deficit once mining exports increase over the medium term.

10. The outlook for external debt has worsened compared to the DSA prepared in 2014. A more persistent terms-of-trade shock than originally envisaged and slower growth are major contributing factors to the deterioration in Mauritania's debt profile. As no major deceleration in debt accumulation is envisaged, existing policies do not provide a counterforce to the ToT deterioration. While in the 2014 DSA only the baseline PV to debt-to GDP ratio breached its threshold and large breaches for baseline projections were short-lived, breaches for baseline projections in the current DSA exercise are large and sustained over the long run.

PUBLIC DEBT SUSTAINABILITY ASSESSMENT

11. Indicators of public debt sustainability mirror those of external debt. The public debt stock is largely composed of external debt. Public domestic debt is about 5 percent of total PPG debt, largely short-term (up to 6 months) and denominated in local currency.

CONCLUSIONS

12. A deteriorated global outlook and significant downward revisions in metal prices have resulted in Mauritania facing significant debt vulnerabilities, the risk of debt distress remains high. Improvements to debt sustainability hinge on improvements in growth dynamics and restrain in contracting new debt.

- **Sustained structural reforms are needed** to promote economic diversification through private sector development and enhance potential economic growth. Allowing the private sector to take a more proactive role in investment and economic diversification could help ease the role of public sector in development and improve debt dynamics.
- **Debt dynamics require closer monitoring and enhanced governance of the public investment program**. In addressing infrastructure gaps, the authorities should also enhance the efficiency of public investment; increase debt management capacity; and limit contracting new debt to priority projects that support potential growth.

13. Authorities broadly agree with the assessment of the DSA and acknowledge the need for prudent debt management while sustaining priority investment. Recent technical assistance from AFRITAC-West provided advice on centralizing the recording of debt for more efficient monitoring; and the authorities are working on a centralized registry of public guarantees and public debt. The recent merger of the Ministry of Finance with the Ministry of Economic Affairs and Development helps in aligning incentives and centralizing decisions on the consolidated public investment program and its financing—a key factor for more efficient debt management practices.

Table 1. Mauritania: External Debt Sustainability Framework, Baseline Scenario 2012–36 1/

(In percent of GDP, unless otherwise indicated)

	Actual			Historical 6/	Standard 6/	Projections									
				Average	Deviation							2016-2021			2022-2036
	2013	2014	2015			2016	2017	2018	2019	2020	2021	Average	2026	2036	Average
External debt (nominal) 1/	**76.8**	**89.2**	**103.2**			**85.0**	**89.7**	**91.0**	**87.1**	**83.6**	**81.0**		**63.5**	**41.1**	
of which: public and publicly guaranteed (PPG)	63.5	74.0	87.6			70.2	76.3	79.3	77.5	75.6	74.6		63.5	41.1	
Change in external debt	-5.6	12.5	13.9			-18.2	4.7	1.3	-3.9	-3.6	-2.6		-2.3	-1.4	
Identified net debt-creating flows	-2.9	22.5	18.7			3.2	5.9	4.1	0.1	-0.2	0.2		-7.3	-12.4	
Non-interest current account deficit 2/	**20.2**	**26.1**	**17.5**	**15.4**	**7.5**	**11.6**	**13.7**	**11.0**	**9.0**	**9.3**	**8.6**		**1.1**	**-4.4**	-0.4
Deficit in balance of goods and services	22.1	27.2	18.9			15.3	16.8	14.8	12.6	13.0	13.3		5.2	-2.4	
Exports	50.3	39.7	33.6			32.3	33.4	31.9	30.6	28.6	25.5		23.9	18.8	
Imports	72.4	66.9	52.5			47.6	50.2	46.7	43.2	41.6	38.8		29.1	16.4	
Net current transfers (negative = inflow)	-2.5	-2.1	-3.1	-3.6	1.2	-3.0	-2.6	-2.6	-2.1	-2.0	-2.2		-2.9	-1.5	-2.3
of which: official	-1.5	-1.2	-1.7			-1.5	-1.1	-1.0	-0.5	-0.5	-0.5		-0.3	-0.1	
Other current account flows (negative = net inflow)	0.6	1.0	1.7			-0.7	-0.5	-1.2	-1.5	-1.8	-2.5		-1.2	-0.6	
Net FDI (negative = inflow)	**-20.1**	**-9.5**	**-11.0**	**-8.8**	**8.9**	**-6.0**	**-6.7**	**-7.6**	**-7.8**	**-8.3**	**-7.8**		**-7.0**	**-7.0**	-7.1
Endogenous debt dynamics 3/	**-2.9**	**5.9**	**12.2**			**-2.4**	**-1.2**	**0.7**	**-1.1**	**-1.2**	**-0.6**		**-1.4**	**-1.0**	
Contribution from nominal interest rate	2.4	1.7	1.9			2.1	2.1	2.2	2.1	2.0	1.9		1.1	0.7	
Contribution from real GDP growth	-5.0	-5.3	-1.9			-4.5	-3.3	-1.5	-3.3	-3.2	-2.5		-2.5	-1.7	
Contribution from price and exchange rate changes	-0.4	9.5	12.2			...	...	...	...	...	...		...	...	
Residual (3-4) 4/	**-2.7**	**-10.0**	**-4.7**			**-21.4**	**-1.1**	**-2.8**	**-4.0**	**-3.4**	**-2.8**		**5.0**	**11.0**	
of which: exceptional financing	-0.2	-0.2	-0.1			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 5/	...	...	85.4			66.5	69.6	69.6	65.7	62.0	59.2		44.4	28.8	
In percent of exports	...	...	254.6			205.6	208.2	218.2	214.8	217.0	232.1		186.3	153.6	
PV of PPG external debt	**...**	**...**	**69.8**			**51.7**	**56.2**	**57.9**	**56.0**	**54.1**	**52.8**		**44.4**	**28.8**	
In percent of exports	**...**	**...**	**208.1**			**159.8**	**168.1**	**181.5**	**183.1**	**189.3**	**207.0**		**186.3**	**153.6**	
In percent of government revenues	**...**	**...**	**248.9**			**175.2**	**187.4**	**199.8**	**197.1**	**196.1**	**190.8**		**165.5**	**110.1**	
Debt service-to-exports ratio (in percent)	**10.6**	**11.9**	**15.6**			**18.7**	**20.1**	**26.6**	**27.4**	**29.0**	**30.6**		**17.2**	**15.7**	
PPG debt service-to-exports ratio (in percent)	**5.9**	**6.4**	**8.6**			**11.3**	**13.1**	**19.6**	**21.2**	**23.0**	**24.5**		**17.2**	**15.7**	
PPG debt service-to-revenue ratio (in percent)	**12.0**	**9.6**	**10.3**			**12.4**	**14.7**	**21.6**	**22.8**	**23.8**	**22.6**		**15.3**	**11.3**	
Total gross financing need (Billions of U.S. dollars)	0.5	1.3	0.7			0.7	0.8	0.7	0.7	0.7	0.7		-0.1	-1.4	
Non-interest current account deficit that stabilizes debt ratio	25.8	13.6	3.6			29.8	9.0	9.7	12.9	12.8	11.2		3.4	-3.0	
Key macroeconomic assumptions															
Real GDP growth (in percent)	6.4	6.6	1.9	5.2	5.4	4.1	3.9	1.7	3.8	3.9	3.2	3.4	4.1	4.3	4.2
GDP deflator in US dollar terms (change in percent)	0.5	-11.0	-12.0	3.5	12.0	-8.2	-4.2	0.1	1.7	2.4	2.3	-1.0	3.6	3.4	3.6
Effective interest rate (percent) 6/	3.2	2.1	1.9	1.5	0.9	1.9	2.5	2.5	2.5	2.5	2.4	2.4	1.8	1.7	1.8
Growth of exports of G&S (US dollar terms, in percent)	0.7	-25.1	-24.2	13.8	39.3	-7.9	2.8	-2.9	1.3	-0.5	-5.8	-2.2	7.5	5.3	5.7
Growth of imports of G&S (US dollar terms, in percent)	-3.6	-12.3	-29.7	6.5	27.5	-13.2	4.9	-5.4	-2.4	2.6	-1.5	-2.5	1.4	1.8	1.9
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8
Government revenues (excluding grants, in percent of GDP)	24.8	26.4	28.1			29.5	30.0	29.0	28.4	27.6	27.7		26.9	26.2	26.7
Aid flows (in Billions of US dollars) 7/	0.0	0.0	0.1			0.2	0.3	0.3	0.3	0.3	0.3		0.3	0.5	
of which: Grants	0.0	0.0	0.1			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.1	
of which: Concessional loans	0.0	0.0	0.0			0.2	0.3	0.3	0.3	0.3	0.3		0.3	0.5	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			2.8	3.5	3.6	3.2	3.1	2.9		2.2	1.7	2.0
Grant-equivalent financing (in percent of external financing) 9/	...	...	...			43.3	36.7	36.5	36.2	36.0	35.8		36.5	38.2	37.3
Memorandum items:															
Nominal GDP (Billions of US dollars)	5.6	5.3	4.8			4.5	4.5	4.6	4.9	5.2	5.5		8.0	17.1	
Nominal dollar GDP growth	6.9	-5.2	-10.3			-4.4	-0.5	1.7	5.6	6.4	5.5	2.4	7.9	7.8	7.9
PV of PPG external debt (in Billions of US dollars)			3.2			2.3	2.5	2.6	2.7	2.8	2.9		3.5	4.9	
(PVt-PVt-1)/GDPt-1 (in percent)						-18.6	4.1	2.7	2.0	1.6	1.6	-1.1	1.9	1.2	1.5
Gross workers' remittances (Billions of US dollars)	0.1	0.0	0.1			0.1	0.1	0.1	0.1	0.1	0.1		0.2	0.2	
PV of PPG external debt (in percent of GDP + remittances)	...	...	68.9			50.9	55.3	57.0	55.2	53.3	51.9		43.3	28.4	
PV of PPG external debt (in percent of exports + remittances)	...	...	200.0			152.8	160.7	173.0	174.3	179.8	193.5		167.9	143.5	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	8.3			10.8	12.6	18.7	20.1	21.8	22.9		15.5	14.7	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Over the long term, the current account is assumed to reach a surplus of around 4 percent of GDP based on efforts of economic diversification.

3/ 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.

4/ 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.

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

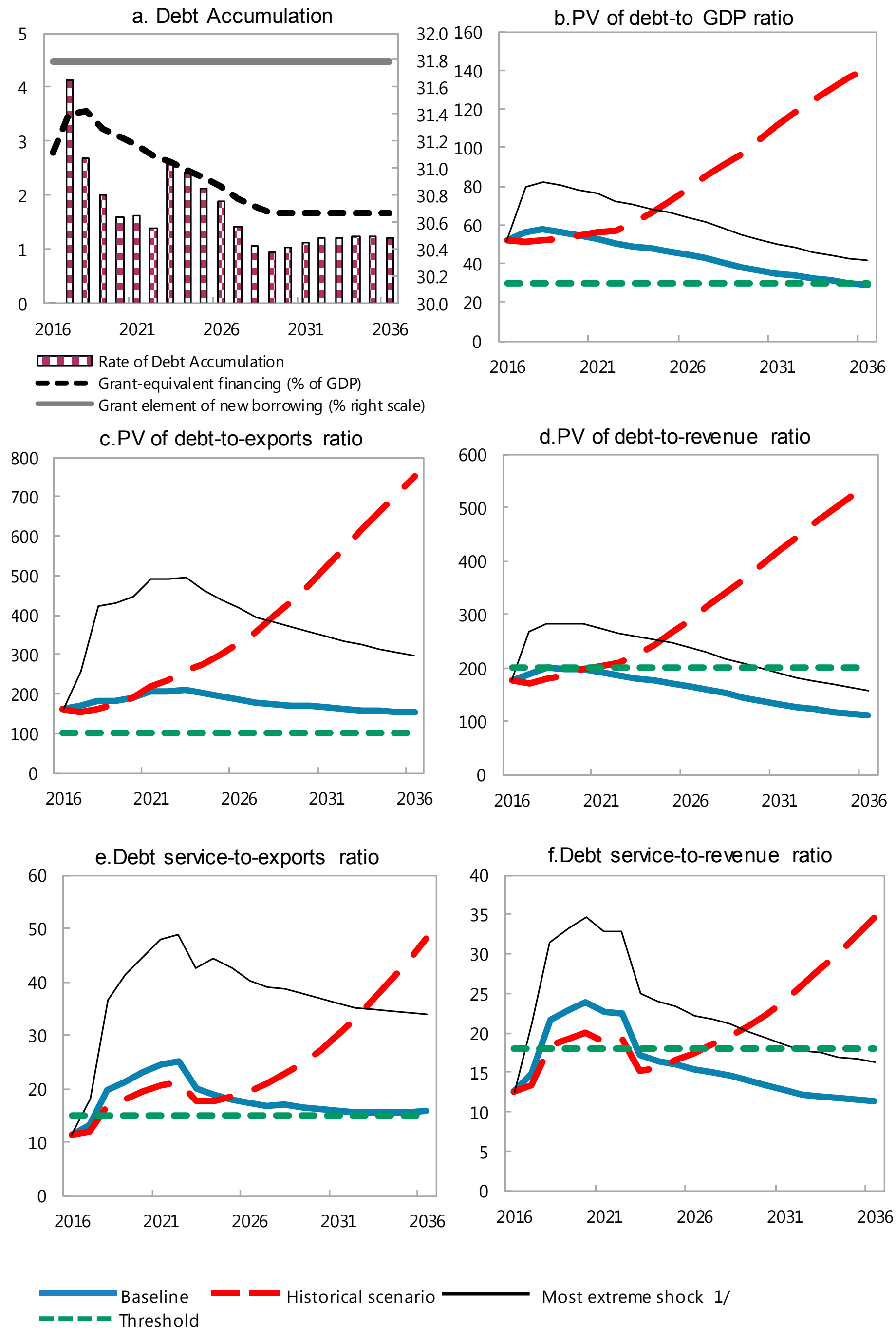
6/ Current-year interest payments divided by previous period debt stock.

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

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

9/ 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).

Figure 1. Mauritania: Indicators of Public and Publicly Guaranteed External Debt under Alternative Scenarios. 2016–36 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 2026. In figure b. it corresponds to a One-time depreciation shock; in c. to a Exports 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

Table 2. Mauritania: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016–36

(In percent)

	Projections							
	2016	2017	2018	2019	2020	2021	**2026**	2036
PV of debt-to GDP ratio								
Baseline	52	56	58	56	54	53	**44**	29
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	52	51	52	53	54	56	**78**	141
A2. New public sector loans on less favorable terms in 2016-2036 2	52	57	62	63	63	64	**63**	52
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	52	57	60	59	57	55	**47**	30
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	52	62	75	73	71	70	**55**	31
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	52	57	65	63	61	60	**50**	33
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	52	60	68	67	65	63	**51**	30
B5. Combination of B1-B4 using one-half standard deviation shocks	52	58	66	65	63	61	**50**	30
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	52	80	82	81	78	76	**64**	41
PV of debt-to-exports ratio								
Baseline	160	168	182	183	189	207	**186**	154
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	160	153	163	172	189	219	**328**	752
A2. New public sector loans on less favorable terms in 2016-2036 2	160	172	193	206	221	251	**263**	279
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	160	164	177	181	187	204	**184**	151
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	160	256	421	431	447	490	**418**	297
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	160	164	177	181	187	204	**184**	151
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	160	180	213	218	226	248	**215**	160
B5. Combination of B1-B4 using one-half standard deviation shocks	160	191	230	235	244	267	**233**	178
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	160	164	177	181	187	204	**184**	151
PV of debt-to-revenue ratio								
Baseline	175	187	200	197	196	191	**165**	110
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	175	171	179	185	196	202	**291**	539
A2. New public sector loans on less favorable terms in 2016-2036 2	175	191	213	221	229	231	**233**	200
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	175	190	207	206	205	200	**173**	115
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	175	207	258	258	258	251	**206**	118
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	175	191	223	223	222	216	**187**	124
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	175	201	235	235	234	228	**191**	115
B5. Combination of B1-B4 using one-half standard deviation shocks	175	194	228	228	228	222	**187**	115
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	175	266	284	283	282	274	**238**	158

Table 2. Mauritania: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016–36 (concluded)

(In percent)

				Debt service-to-exports ratio				
Baseline	11	13	20	21	23	25	**17**	16
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	11	12	17	18	19	20	**20**	48
A2. New public sector loans on less favorable terms in 2016-2036 2	11	13	19	20	21	22	**22**	27
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	11	13	20	21	23	25	**17**	16
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	11	18	37	41	45	48	**40**	34
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	11	13	20	21	23	25	**17**	16
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	11	13	20	22	24	26	**20**	18
B5. Combination of B1-B4 using one-half standard deviation shocks	11	14	22	25	27	29	**22**	19
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	11	13	20	21	23	25	**17**	16
				Debt service-to-revenue ratio				
Baseline	12	15	22	23	24	23	**15**	11
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	12	13	18	19	20	19	**17**	35
A2. New public sector loans on less favorable terms in 2016-2036 2	12	15	21	21	22	21	**19**	19
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	12	15	23	24	25	24	**16**	12
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	12	15	22	25	26	25	**20**	14
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	12	15	25	26	27	26	**17**	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	12	15	22	24	25	24	**18**	13
B5. Combination of B1-B4 using one-half standard deviation shocks	12	15	22	24	25	24	**18**	13
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	12	21	31	33	35	33	**22**	16
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	23	23	23	23	23	23	**23**	23

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.

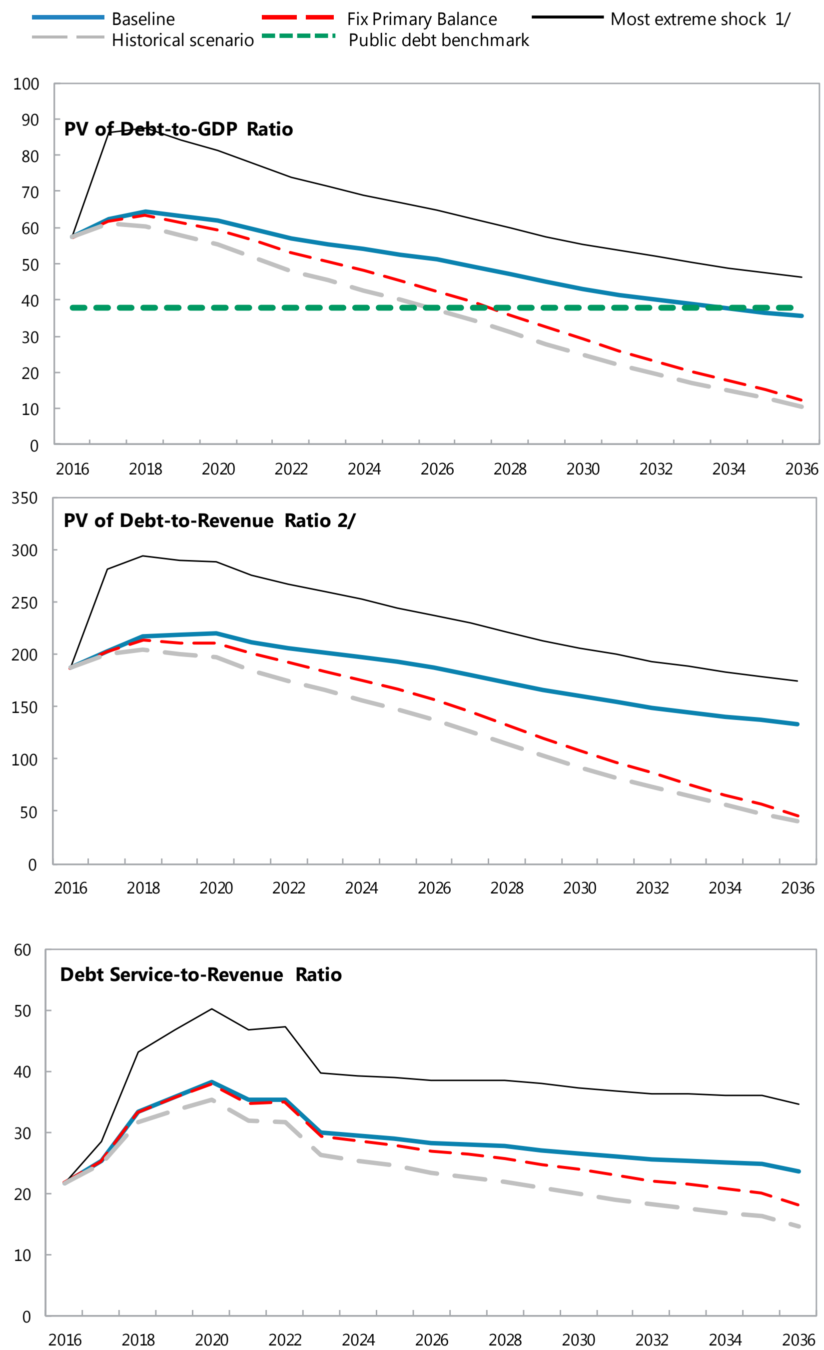
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

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.

Figure 2. Mauritania: Indicators of Public Debt under Alternative Scenarios, 2016–36 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 2026.
2/ Revenues are defined inclusive of grants.

Table 3. Mauritania: Public Sector Debt Sustainability Framework, Baseline Scenario 2013–36

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate					Projections				
	2013	2014	2015	Average 5/	Standard Deviation 5/	2016	2017	2018	2019	2020	2021	2016-21 Average	2026	2036	2022-36 Average
Public sector debt 1/	67.8	80.4	93.3			75.7	82.4	85.9	84.6	83.3	81.1		70.1	47.7	
of which: foreign-currency denominated	63.5	74.0	87.6			70.2	76.3	79.3	77.5	75.6	74.6		63.5	41.1	
Change in public sector debt	-5.8	12.6	12.9			-17.6	6.7	3.5	-1.3	-1.3	-2.1		-2.3	-1.4	
Identified debt-creating flows	-4.4	8.9	13.1			4.0	2.8	1.8	-2.4	-2.0	-1.4		-1.3	1.1	
Primary deficit	-1.0	2.4	2.3	0.7	2.1	0.7	1.2	1.7	1.6	1.4	1.4	1.3	2.6	4.1	3.0
Revenue and grants	25.5	26.5	29.9			30.6	30.7	29.7	29.0	28.1	28.2		27.3	26.6	
of which: grants	0.7	0.1	1.8			1.1	0.7	0.7	0.6	0.5	0.5		0.4	0.4	
Primary (noninterest) expenditure	24.5	28.9	32.2			31.2	31.9	31.4	30.6	29.6	29.5		29.9	30.6	
Automatic debt dynamics	-3.4	6.5	10.8			3.3	1.6	0.1	-4.0	-3.4	-2.7		-4.0	-3.0	
Contribution from interest rate/growth differential	-3.6	-3.8	-0.7			-3.4	-2.5	-1.4	-3.3	-3.3	-1.1		-1.7	-1.6	
of which: contribution from average real interest rate	0.8	0.4	0.8			0.3	0.3	-0.1	-0.1	-0.1	1.5		1.2	0.4	
of which: contribution from real GDP growth	-4.4	-4.2	-1.5			-3.7	-2.8	-1.3	-3.2	-3.2	-2.6		-2.9	-2.0	
Contribution from real exchange rate depreciation	0.2	10.3	11.6			6.7	4.2	1.5	-0.7	-0.2	-1.6		...	...	
Other identified debt-creating flows	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Debt relief (HIPC and other)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	-1.3	3.7	-0.2			-21.6	3.8	1.7	1.1	0.7	-0.7		-1.0	-2.5	
Other Sustainability Indicators															
PV of public sector debt	...	...	75.5			57.2	62.2	64.5	63.1	61.7	59.4		51.0	35.4	
of which: foreign-currency denominated	...	...	69.8			51.7	56.2	57.9	56.0	54.1	52.8		44.4	28.8	
of which: external	...	...	69.8			51.7	56.2	57.9	56.0	54.1	52.8		44.4	28.8	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	9.4	12.7	14.9			12.8	14.2	17.2	18.0	18.8	18.3		16.4	16.3	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	252.5			187.1	203.1	217.3	217.8	219.5	210.9		187.1	133.2	
PV of public sector debt-to-revenue ratio (in percent)	...	...	269.1			194.0	207.7	222.4	222.2	223.7	214.6		190.0	135.3	
of which: external 3/	...	...	248.9			175.2	187.4	199.8	197.1	196.1	190.8		165.5	110.1	
Debt service-to-revenue and grants ratio (in percent) 4/	20.8	22.4	20.2			21.7	25.2	33.2	35.9	38.2	35.2		28.3	23.5	
Debt service-to-revenue ratio (in percent) 4/	21.3	22.5	21.6			22.5	25.8	34.0	36.6	38.9	35.8		28.8	23.8	
Primary deficit that stabilizes the debt-to-GDP ratio	4.8	-10.2	-10.7			18.2	-5.5	-1.8	2.9	2.8	3.5		4.9	5.5	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	6.4	6.6	1.9	5.2	5.4	4.1	3.9	1.7	3.8	3.9	3.2	3.4	4.1	4.3	4.2
Average nominal interest rate on forex debt (in percent)	2.6	1.2	1.1	0.7	0.9	1.2	1.8	1.9	2.0	2.0	2.0	1.8	1.8	1.7	1.8
Average real interest rate on domestic debt (in percent)	4.0	16.3	11.0	4.9	8.9	5.6	4.7	0.6	0.6	1.0	0.6	2.2	0.7	...	0.8
Real exchange rate depreciation (in percent, + indicates depreciation	0.3	17.3	15.9	-0.2	10.5	8.0	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	0.3	-9.4	-5.5	5.3	9.9	-1.6	0.6	5.1	5.3	4.6	4.5	3.1	4.8	4.5	4.7
Growth of real primary spending (deflated by GDP deflator, in percer	-3.0	25.6	13.4	5.2	10.5	1.2	5.9	0.1	1.2	0.6	3.1	2.0	4.3	5.5	4.4
Grant element of new external borrowing (in percent)	...	...	...	...	...	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	...

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, 2016–36

	Projections							
	2016	2017	2018	2019	2020	2021	2026	2036
PV of Debt-to-GDP Ratio								
Baseline	57	62	64	63	62	59	51	35
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	57	61	60	58	55	52	37	11
A2. Primary balance is unchanged from 2016	57	62	63	61	59	56	43	12
A3. Permanently lower GDP growth 1/	57	63	67	67	67	67	70	90
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-20	57	66	71	71	70	69	65	55
B2. Primary balance is at historical average minus one standard deviations in 2017-201	57	63	67	65	64	61	53	36
B3. Combination of B1-B2 using one half standard deviation shocks	57	63	65	64	63	60	52	37
B4. One-time 30 percent real depreciation in 2017	57	86	87	84	81	78	65	46
B5. 10 percent of GDP increase in other debt-creating flows in 2017	57	70	72	71	69	67	57	39
PV of Debt-to-Revenue Ratio 2/								
Baseline	187	203	217	218	219	211	187	133
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	187	199	204	199	197	184	137	40
A2. Primary balance is unchanged from 2016	187	202	213	211	211	200	156	46
A3. Permanently lower GDP growth 1/	187	206	225	231	239	237	257	336
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-20	187	214	238	243	250	245	238	207
B2. Primary balance is at historical average minus one standard deviations in 2017-201	187	207	224	225	227	218	193	137
B3. Combination of B1-B2 using one half standard deviation shocks	187	207	220	221	223	215	192	140
B4. One-time 30 percent real depreciation in 2017	187	281	295	290	289	276	237	174
B5. 10 percent of GDP increase in other debt-creating flows in 2017	187	228	244	244	246	237	209	147
Debt Service-to-Revenue Ratio 2/								
Baseline	22	25	33	36	38	35	28	23
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	22	25	32	34	35	32	23	15
A2. Primary balance is unchanged from 2016	22	25	33	36	38	35	27	18
A3. Permanently lower GDP growth 1/	22	25	34	37	40	38	34	39
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-20	22	26	35	38	41	38	32	30
B2. Primary balance is at historical average minus one standard deviations in 2017-201	22	25	33	36	39	35	29	24
B3. Combination of B1-B2 using one half standard deviation shocks	22	26	33	36	38	35	29	24
B4. One-time 30 percent real depreciation in 2017	22	29	43	47	50	47	38	35
B5. 10 percent of GDP increase in other debt-creating flows in 2017	22	25	34	38	39	36	30	25

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.