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ISLAMIC REPUBLIC OF MAURITANIA

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REQUEST FOR A THREE-YEAR ARRANGEMENT UNDER THE EXTENDED CREDIT FACILITY—DEBT SUSTAINABILITY ANALYSIS

Approved By
Daniela Gressani and Kevin Fletcher (IMF) and Paloma Anós Casero (IDA)

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

Mauritania's risk of debt distress remains high owing to a substantial increase in external debt over the past three years to finance infrastructure and external deficits, a contraction in nominal GDP due to the 2014–15 terms-of-trade shock, and the depreciation of the exchange rate in 2016. However, the outlook for external debt sustainability has improved compared to the 2017 Article IV DSA and the debt profile shows earlier prospects of an exit from high risk of debt distress. The improvement reflects a stronger than-expected-fiscal adjustment in 2017 and during the medium term, an expansion in gold mining capacity financed by foreign direct investment, higher gold and iron ore prices, an improved current account, and lower projected debt disbursements owing to a more prioritized and restrained public investment program. At the same time, projected export and growth performance, as well as fiscal and debt trajectories, are vulnerable to significant downside risks stemming from lower global commodity prices, weather-related events, regional security developments, and possible reform implementation delays. Baseline projections show breaches of all debt indicator thresholds except for the debt service-to-exports ratio. However, these breaches are shorter than previously projected. Moreover, for two—the ratios of the present value (PV) of PPG external debt-to-exports and PV of PPG external debt-to-revenues—the breaches are small and temporary only in 2017, therefore have no bearing on the risk rating.[1]

The DSA highlights the need to follow sound economic policies, including a prudent borrowing strategy that avoids non-concessional borrowing and relies instead on grants and concessional financing taken up at a moderate pace. To limit existing near-term liquidity risks, new external borrowing resulting in significant additional short-term debt service should be avoided. The authorities should also continue their best efforts to resolve the external debt in arrears with Kuwait, consistent with the HIPC Initiative.

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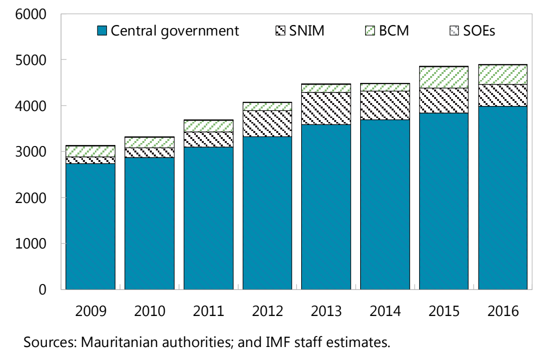
[1] Prepared under the joint Fund-Bank Low-Income Country Debt Sustainability Framework. The previous DSA was prepared as part of the 2017 Article IV Consultation and published in IMF Country Report No. 17/324. Mauritania's policy performance continues to be rated as medium with a Country Policy and Institutional Assessment (CPIA) average of 3.36 for 2014–16; Mauritania graduated from weak to medium in the previous DSA based on the CPIA score for 2013–15 (3.33).

BACKGROUND

1. **External debt rose during 2015-16 due to sizable borrowing, reflecting the government's strategy to seek external financing and donor support for large capital investment projects, primarily for infrastructure development, in the context of its national strategy for stronger, diversified and inclusive growth.**[2] Between 2014–16, the ratio of external public debt to GDP rose sharply by 21 percentage points of GDP to 92.6 percent of GDP.[3] The impact of an increase in debt of $552 million (10 percent of 2014 GDP), was compounded by a 12 percent contraction in the nominal dollar GDP, on account of a terms-of-trade shock during 2014-15 and the depreciation of the exchange rate in 2016. Mauritania's stock of external debt includes a passive debt in arrears owed to Kuwait.[4] Excluding this latter debt, external public debt reached 71.8 percent of GDP at end-2016. Much of the nominal increase during 2015-16 owed to a $300 million non-concessional deposit from Saudi Arabia to support the central bank's reserves in 2015. The rest was mostly contracted by the central government to finance the budget and public investment projects.

External Debt by Debtor, 2009–16
(In millions of USD)



Source: Mauritanian authorities.

2. **External debt is largely composed of public debt contracted on concessional or semi-concessional terms with official creditors.** External public and publicly guaranteed (PPG) debt represented about 84 percent of total external debt at end-2016. PPG external debt includes debt contracted by the central government, the central bank, and state-owned enterprises (SOEs). It excludes borrowing by the public mining company, SNIM, as the company is run on a commercial basis and borrowed without government guarantees up to end-2016; this is classified as private external debt.[5] However, in 2017 the government provided a guarantee on a new external loan contracted by SNIM, and the DSA projections include the related disbursements and debt service as part of PPG debt. Apart from SNIM there is very little debt contracted directly by SOEs; at end-2016 outstanding state-owned enterprise debt amounted to $1.1 million (0.025 percent of total PPG debt).[6] Instead, SOEs primarily receive foreign

[2] The authorities are in the process of finalizing Mauritania's national development strategy "National Strategy for Accelerated Growth and Shared Prosperity 2016-2030" (SCAPP).

[3] In Table 4, the external public debt to GDP at end-2016 is recorded as 94 percent of GDP. The difference between the two figures stems from different exchange rates (average or end-period) implicitly used to value foreign debt in local currency.

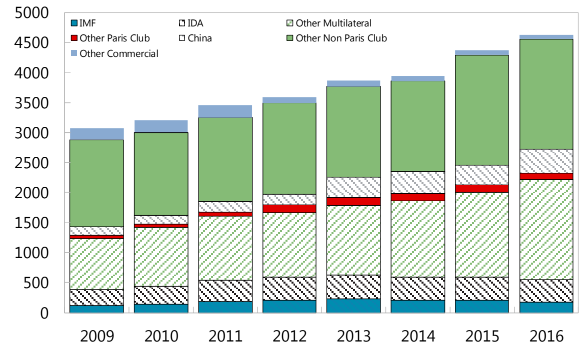
[4] A passive pre-HIPC debt, now estimated at 21 percent of GDP, is owed to the Kuwait Investment Authority (KIA) since the 1970s. The authorities are seeking debt relief from Kuwait, but no agreement has been reached yet. This DSA assumes full debt relief in 2018; in the previous DSA the debt relief was assumed to be granted in 2017.

[5] Nevertheless, SNIM debt represents a contingent liability for the central government, which is a majority shareholder.

[6] This is owed by the Airport Company of Mauritania (SAM) and the predecessor (SONELEC) of SOMELEC, the electricity company.

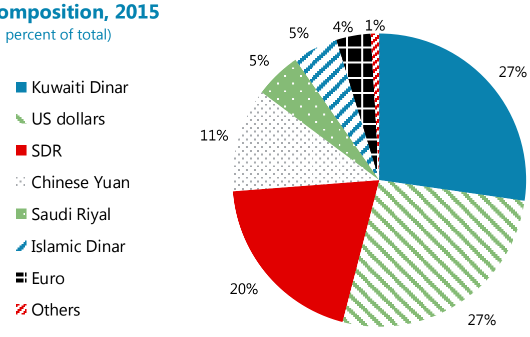
financing through on-lending of loans contracted by the government; at end-2016, the stock of such on-lent debt amounted to $178 million (4 percent of total PPG debt) and had been on-lent to the electricity sector. PPG external debt is mostly denominated in U.S. dollars and currencies pegged to or closely following it. Private sector external debt comprises debt contracted by commercial banks and SNIM.

PPG External Debt by Creditor, 2009-16
(In millions of USD)



Sources: Mauritanian authorities; and IMF staff estimates.

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



Sources: Mauritanian authorities.

Table 1. Mauritania: Public and Publicly Guaranteed External Debt, 2013–16

	2013	2014	2015	2016	2013	2014	2015	2016
	(in Million of USD)				(in percent of GDP)			
Public and Publicly Guaranteed External Debt	**3,770.1**	**3,856.0**	**4,291.8**	**4,407.6**	**65.9**	**71.5**	**88.7**	**92.6**
Bilateral Creditors	1,985.7	1,994.7	2,289.3	2,294.3	34.7	37.0	47.3	48.2
Paris Club	136.3	123.1	119.4	115.9	2.4	2.3	2.5	2.4
Of which: France	95.5	87.0	81.4	81.5	1.7	1.6	1.7	1.7
Spain	35.8	31.7	34.3	31.1	0.6	0.6	0.7	0.7
Non Paris Club	1,849.4	1,871.6	2,169.9	2,178.4	32.3	34.7	44.8	45.8
Of which: China	333.4	367.3	340.4	339.3	5.8	6.8	7.0	7.1
Kuwait [1/]	1,140.9	1,140.1	1,141.8	1,146.5	19.9	21.1	23.6	24.1
Saudi Arabia [2/]	214.6	212.0	509.4	522.8	3.7	3.9	10.5	11.0
Multilateral Creditors	1,784.4	1,861.4	2,002.5	2,113.2	31.2	34.5	41.4	44.4
Of which: Islamic Development Bank (IDB)	218.1	273.8	340.5	374.9	3.8	5.1	7.0	7.9
International Development Association (IDA)	396.6	379.5	385.6	364.8	6.9	7.0	8.0	7.7
International Monetary Fund (IMF)	211.3	195.5	190.9	166.1	3.7	3.6	3.9	3.5
Arab Monetary Fund (AMF)	18.7	47.4	62.4	159.8	0.3	0.9	1.3	3.4
Arab Fund for Economic and Social Development (AFESD)	702.5	749.0	819.2	856.4	12.3	13.9	16.9	18.0
Memorandum items:								
Passive debt to Kuwait Investment Authority (KIA)	1,001.0	997.2	993.9	993.1	17.5	18.5	20.5	20.9
Saudi deposit at BCM	-	-	300.0	300.0	-	-	6.2	6.3
PPG external debt excluding passive debt to KIA	**2,769.2**	**2,858.8**	**3,297.9**	**3,414.5**	**48.4**	**53.0**	**68.1**	**71.8**
Nominal GDP	5,724.2	5,391.5	4,841.2	4,758.2	-	-	-	-

Source: Mauritanian authorities.

[1/] Including passive debt to KIA under negotiation.

[2/] Including Saudi deposit at BCM.

3. **The authorities external borrowing strategy is aimed at strengthening debt sustainability while providing sufficient financing for priority projects that are key to their economic development strategy.** To that end, they intend to give preference to loans on concessional terms and grants to finance their development projects, and contain the pace of borrowing consistent with strengthening debt sustainability. However, in cases where adequate concessional financing is not available to finance priority

development projects, notably large-scale projects critical to economic diversification, external non-concessional loans may be contracted on an exceptional basis for priority projects. Consistent with this strategy, new external loans contracted through end-October 2017 amount to 12 percent of GDP, of which 7 percent on concessional terms, 2.7 percent of GDP on semi-concessional terms, and 2.1 percent of GDP on commercial terms. However, in 2018 the volume of new borrowing is to be sharply curtailed. In late 2016, a new law on public-private-partnerships (PPP) was adopted with a view to using PPPs to reduce reliance on borrowed resources to finance infrastructure projects.

4. **The authorities' capacity to monitor and record external debt remains weak.** Debt stock figures reported to staff for 2014–15 and estimates for 2016 were revised upward in early 2017 by over $200 million due to incomplete or delayed reporting, primarily of disbursements by government ministries, agencies, and public enterprises. Improving capacity to monitor and record debt will be critical for effective debt management in the future. In this respect, several initiatives are underway to strengthen debt management: the authorities are introducing and connecting information systems on investments and government expenditures to the debt database in order to improve the coverage and timeliness of the exchange of information between the Ministry of Finance and its Debt Department, central bank and project/investment entities to ensure that the debt database is updated on a timely basis; they also intend to reactivate the National Committee for Public Debt and ensure that it is more involved in the investment selection and loan contracting process and to monitor the impact on debt and debt sustainability. Past IMF technical assistance has focused on debt sustainability analysis (2014 and 2016), the organizational structure of public debt management (2014), issuance procedures for domestic debt (2016), and the regulations for primary market operations (2017). A World Bank DeMPA report was issued in 2011.

5. **The authorities continue to actively seek debt relief from Kuwait.** An agreement has not yet been reached between the Kuwait Investment Authority (KIA) and Mauritania to resolve this longstanding issue. Both parties are seeking agreement on the valuation of the debt, including interest in arrears. Under the 2002 Paris Club agreement following the completion point for Mauritania in 2002, Mauritania is expected to seek debt relief on at least comparable terms from non-Paris Club creditors. In the DSA's baseline projection, staff assumes full debt relief on these arrears in 2018.

6. **The stock of central government domestic debt has remained broadly stable during 2008-16 (about 5 percent of GDP).** While the stock of debt has remained broadly stable in terms of GDP, the share held by nonbank has been steadily rising since 2010 from 22 percent of total government domestic debt to 55 percent in 2016. Government domestic debt issuance is limited to treasury bills of four to fifty-week maturities with most concentrated on the shorter end—four and thirteen-week maturities.

7. **The initial conditions for the current DSA are improved compared to those on which the 2017 Article IV consultation DSA (2017-A4 DSA) was based.** The current DSA benefits from more complete actual data for 2017. In particular, through the first eight months, fiscal adjustment was significantly larger than anticipated previously, reflecting better revenue performance and lower spending. As a result, the primary fiscal surplus is now expected to be 0.7 percent of GDP higher than in the 2017-A4 DSA. Also, the authorities further prioritized their investment plan, which together with lower-than-expected absorption capacity has led to lower capital spending and new external borrowing. Economic

prospects also benefited from the decision of a foreign operator to implement a second expansion of its gold treatment plant expected to come on line in 2020 with a significant impact on GDP and exports.

DEBT SUSTAINABILITY ASSESSMENT

A. Macroeconomic Assumptions and Outlook

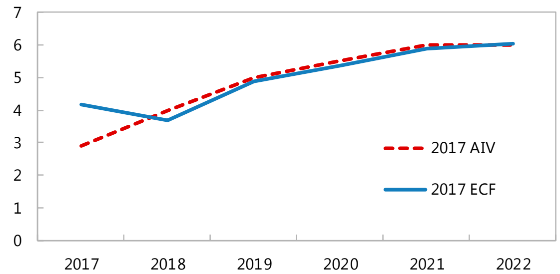
8. **Compared to previous DSA (2017 Article IV consultation, 2017-A4 DSA), the outlook has improved,** mainly due to higher growth and exports and lower projected loan disbursements in the medium term. The macroeconomic framework for the 2017-A4 DSA was based on staff's understanding of the authorities' policy stance at that time. By contrast the current DSA (2017-ECF DSA) is consistent with the macroeconomic framework underlying the Staff Report prepared for the authorities' request for a three-year ECF arrangement. In this context, the current framework entails a greater measure of fiscal consolidation over the medium term, including a more prioritized and restrained investment program. Thus, with higher growth and exports, the more restrained fiscal path leads to a larger and more rapid fall in the ratio of external PPG debt in terms of GDP. However, risks to the baseline projections are significant in the short-term even if they become more balanced in the long-term. In the short-term, the economy remains vulnerable to lower metal prices, the impact of the rainfall deficit recorded this year, and recurrent terrorist attacks in the Sahel which could threaten regional stability. On the upside, possible gas production, starting in 2021, could be a game-changer with major positive implications.

9. **Real GDP growth is projected to be on average 1 percent higher over the medium term** primarily because of an expansion in gold mining activity, recently decided by a large foreign operator. Growth will be supported by the authorities' public infrastructure investment program, foreign investment in the extractive sector, and planned structural reforms aimed at improving the business climate, diversifying the economy, and raising inclusive growth. Non-extractive growth is expected to pick up over the medium term largely in line with the 2017-A4 DSA projection, reaching close to 6 percent by 2021, supported by gains in agriculture, fishing, construction, and services, and the implementation of the authorities' planned economic reforms. The current account deficit will be lower than in the 2017-A4 DSA because of higher exports stemming primarily from an increase in gold exports, as well as higher iron ore and gold prices.[7] Moreover, this DSA projects lower debt disbursements consistent with the authorities' more prioritized and restrained public investment program than the 2017-A4 DSA, averaging about 4½ percent of GDP over the medium term (almost 2 percent of GDP less than in the previous DSA); over the long term, disbursements gradually decline to slightly under 4 percent of GDP, reflecting the greater prioritization of public investment. The average grant element of new disbursements on the arrears owed to KIA is assumed to take place in the 2018, compared to 2017 in the 2017-A4 DSA; this drives the large reduction in public and external debt in 2018.

[7] Compared to the 2017 A4 DSA, the new FDI-financed second expansion in gold processing and output is reflected in higher capital and equipment imports during 2018-20, somewhat dampened by a slowdown in food imports and imports related to project loan disbursements.

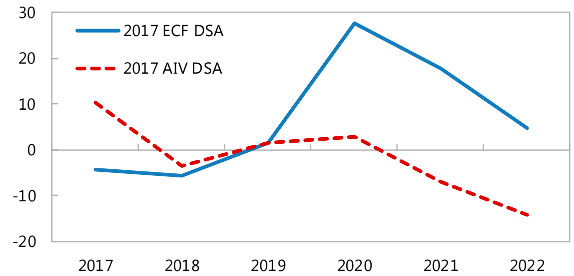
Mauritania: Macroeconomic Projections, 2016–35

Real Non-Extractive GDP Growth
(Percent change)



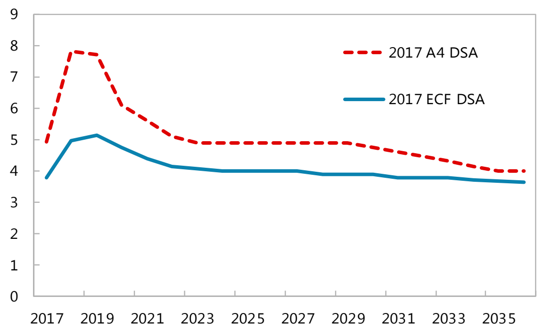
Source: IMF staff projections.

Real Extractive GDP Growth
(Percent change)



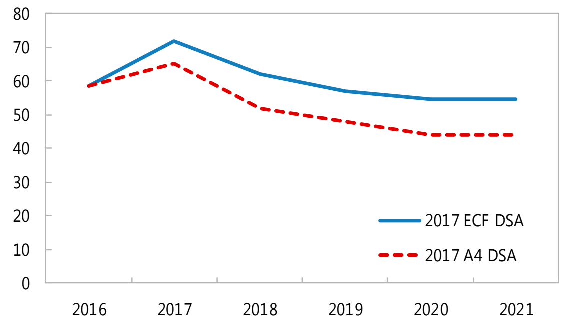
Source: IMF staff projections.

Projected New Debt Disbursements
(In percent of GDP)



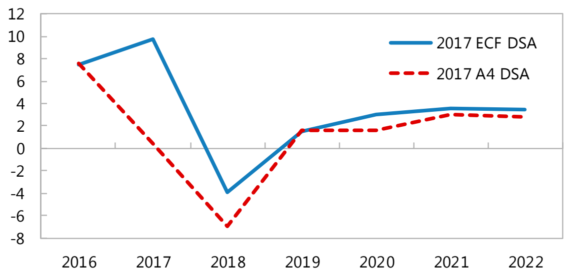
Source: IMF staff projections.

Price of Iron Ore
(US$/Ton)



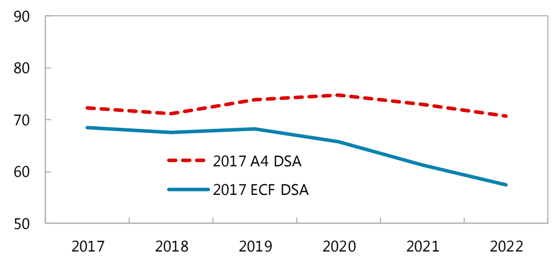
Source: World Economic Outlook.

Terms of Trade
(Percent change)



Source: IMF staff estimates.

PPG External Debt 1/
(In percent of GDP)



Sources: IMF staff projections.
1/ Excluding arrears to Kuwait for which debt relief under HIPC-MDRI is assumed.

Table 2. Mauritania: Macroeconomic Assumptions, 2016–37

	2016	2017	2018	2019	2020	2021	2022	2023-29	2030-37
Real GDP growth									
2017 A4 DSA	1.7	3.8	3.0	4.6	5.2	4.6	4.0	5.3	4.8
2017 ECF DSA	1.6	3.1	2.7	4.5	7.5	7.3	5.9	4.6	4.7
Nominal GDP (in millions of US$)									
2017 A4 DSA	4,729	4,961	5,000	5,164	5,417	5,710	6,073	8,133	13,503
2017 ECF DSA	4,758	5,125	5,324	5,432	5,768	6,238	6,741	8,601	13,836
Exports of goods (growth)									
2017 A4 DSA	0.9	13.7	8.8	2.1	1.4	-1.8	-5.1	4.0	4.7
2017 ECF DSA	0.9	26.6	3.1	2.1	20.4	12.9	-1.0	-1.8	3.7
Imports of goods (growth)									
2017 A4 DSA	-2.5	7.1	-2.6	0.7	0.9	0.4	1.1	4.0	4.2
2017 ECF DSA	-2.5	4.6	5.6	0.4	-1.4	4.3	3.7	2.3	3.7
Current account balance (in percent of GDP)									
2017 A4 DSA	-14.9	-15.3	-11.2	-10.3	-9.9	-9.2	-8.9	-7.6	-6.2
2017 ECF DSA	-14.9	-10.8	-11.3	-10.3	-5.1	-3.5	-3.8	-4.0	-4.8
Revenue and grants (in percent of GDP)									
2017 A4 DSA	27.9	26.3	26.3	26.3	25.9	26.1	26.6	26.6	20.1
2017 ECF DSA	27.6	26.8	26.9	26.8	26.0	25.8	25.9	25.8	25.8
Primary balance (in percent of GDP)									
2017 A4 DSA	0.7	0.5	-0.7	-0.5	-0.8	-0.7	-0.7	-0.9	-1.0
2017 ECF DSA	0.8	1.2	1.2	1.5	1.7	1.7	1.6	-0.3	-1.3
Price of iron ore (US$/Ton)									
2017 A4 DSA	58.6	65.1	51.7	48.1	44.2	44.2	44.2	44.2	44.2
2017 ECF DSA	58.6	71.7	62.0	57.1	54.6	54.6	54.6	54.6	54.6

Sources: Mauritanian authorities; and Fund staff estimates and projections.

B. External Debt Sustainability

11. Baseline projections for four of the five debt indicators breach their respective thresholds, although two indicators show only a small and temporary breach.[8] The baseline breaches under the current DSA framework are less severe than in the 2017-A4 DSA, and debt burden indicators drop below their respective policy-dependent thresholds earlier, indicating an exit from a high risk of debt distress in the medium term. The PV of debt-to-GDP ratio is now projected on a firm downward trajectory from the outset of the projection period and falls below the threshold from 2024 onward, six years earlier than in the 2017-A4 DSA. The PV of debt-to-exports ratio only breaches its threshold in 2017 and remains below it, albeit by a small margin thereafter; in the 2017-A4 DSA the threshold was breached in 2022 and remained above it by a relatively small margin thereafter. Under the 2017-A4 DSA the PV of debt-to-revenue ratio did not breach its threshold but in the current DSA does, but only in 2017 and drops to a lower level than in the 2017-A4 DSA thereafter. The breaches for these two debt burden indicators are small and only in 2017, and given the late stage of the year they are discounted in the debt distress rating. As in the 2017-A4 DSA, debt service-to-revenue ratio breaches the threshold, but for one year less, during 2018–20 due to the

[8] The residuals in the external debt sustainability baseline scenario (Table 2) are largely positive beyond the short term, and reflects a steady buildup of reserves and net private sector financial inflows of the mining sector. In the short term, negative residuals reflect (i) debt relief in 2018 on the debt in arrears to the KIA; (ii) and a drawdown in reserves in 2017.

amortization of the $300 million deposit from Saudi Arabia received in 2015 to support reserves and of the budget support loans contracted from the Arab Monetary Fund (AMF). Private external debt, which mainly consists of debts of the iron ore mining company SNIM and banking sector liabilities, is relatively small and is projected to decline over the projection period based on a conservative assumption on new borrowing, as private sector borrowing plans are unknown.

12. Standardized stress tests show breaches of respective thresholds by all five debt indicators. Stress tests highlight vulnerabilities to shocks to exports and to exchange rate depreciation; however, the magnitude of the breaches is somewhat less than in the 2017-A4 DSA. As regards the standard historical scenario, which projects rising debt and debt service ratios, this is not considered to be realistic since it assumes that the current account deficits due to FDI-financed expansion of mining capacity would in the future be financed by debt.

13. While the outlook for external debt sustainability has improved compared to the 2017-A4 DSA, Mauritania's risk of external debt distress continues to be assessed as high on the basis of two threshold breaches under the baseline, one less than in the A4 DSA. The debt profile has improved owing to projected higher growth, reflecting an expansion in gold mining capacity financed by foreign direct investment, higher gold and iron ore prices, an improved current account, and lower projected debt disbursements owing to a more prioritized and restrained public investment program. This DSA indicates that with prudent policies, such as those proposed by the authorities in their request for a three-year ECF arrangement, most debt burden indicators show a clear decline and earlier prospects of exit from a high risk of debt distress. However, this debt trajectory is subject to significant downside risks affecting the projected export and growth performance, and the fiscal path, stemming from lower global commodity prices, weather-related events, regional security developments, and possible reform implementation delays; the stress tests illustrate these vulnerabilities. In the near term, the authorities should monitor closely the consequences of any new borrowing on short-term debt service in view of the considerable rise in debt service falling due (owing to the repayment profile of both the $300 million deposit at the central bank and AMF loans to the central government), and ensure that adequate resources are available to meet those payments without undue disruption to other budget expenditures or a sharp drawdown of international reserves.

C. Public Debt Sustainability

14. The dynamics of total public debt reflect the large share of external debt, and thus are also improved compared with 2017-A4 DSA. The public debt stock is largely composed of external debt, with domestic debt only about 5 percent of GDP at end-2016. Domestic debt consists mostly of short-term treasury bills. Under the baseline, the PV of public debt-to-GDP ratio shows a marked steady decline, falling below the 56 percent benchmark in 2020 and continuing to decline thereafter.[9] The stress test which

[9] The residuals in the public debt sustainability baseline scenario (Table 5) are largely positive during the first ten years of the projection period and turn negative thereafter. This reflects two factors: (i) the central government budget does not capture debt disbursements on loans on-lent to public enterprises or loans directly contracted by public enterprises; the budget does however capture the debt service of the on-lent loans which are paid by the government; this has a positive impact on the residuals; and (ii) a buildup of government deposits, notably in the second half of the projection period, which has a negative impact on the residuals.

assumes a fixed primary balance shows debt dynamics similar to the baseline, as both reflect a restrained fiscal policy stance—a small primary surplus under the stress test and surpluses over the medium term under the authorities' program for the requested three-year ECF arrangement (baseline). The historical scenario illustrates well the risk of a sustained shortfall in growth compared to the baseline which would preclude any marked decline in the debt-to-GDP ratio. This is further highlighted in the bound test for a temporary shock to growth, in which during 2018-2019 real growth is 0.7 percent versus 3.6 percent on average in the baseline. Over the projection period the PV of public debt-to-GDP ratio is higher than under the baseline and the divergence between the two scenarios widens over time, reaching 18 percentage points by 2037. A similar pattern is observed for the negative impact of a growth shock on the PV of public debt-to-revenue ratio and the debt service-to-revenue ratio. Indeed, this bound test has the second largest impact (after the most extreme test) on the debt burden indicators during the first 10 years of the projections. The most extreme shock is associated with a one-time depreciation and illustrates the significant vulnerability related to the preponderance of foreign currency-denominated debt.

CONCLUSIONS

15. Mauritania's risk of debt distress remains high, following the increase in external debt over the past three years to finance infrastructure and external deficits, and a contraction in nominal GDP due to the terms-of-trade shock and exchange rate depreciation. However, with the adoption by the authorities of a program of restrained fiscal policy as part of their request for a three-year ECF arrangement and improved growth and export prospects in the medium term, the DSA indicates a clear decline in debt burden indicators and earlier prospect of an exit from high risk of debt distress than in the 2017-A4 DSA, although the improved prospects are subject to significant downside risks stemming from lower global commodity prices, weather-related events, regional security developments, and possible reform implementation delays. The high risk of debt distress is still present for the next five years, and in the near term it will be important to monitor closely the impact of any new borrowing on debt service in view of the considerable rise in debt service falling due, and ensure that adequate resources are available to meet those payments without undue disruption to other budget expenditures or a sharp drawdown of international reserves.

16. The DSA highlights the need to follow sound economic policies, including a prudent borrowing strategy that takes on new debt at a moderate pace, avoids non-concessional borrowing, and relies instead on grants and concessional financing. To avoid exacerbating short-term liquidity risks, new borrowing resulting in significant additional short-term debt service should be avoided. The authorities should also continue their best efforts to resolve the external debt in arrears with Kuwait; partial realization of the assumed full debt relief on the arrears would negatively impact debt prospects. More generally, raising prospects for debt sustainability hinge on sustaining structural reforms to promote strong and inclusive growth and economic diversification through private sector development; improving the governance of the public investment program to raise its efficiency and growth dividends; and implementing further reforms to improve the business climate and encourage private sector investment. Strengthening debt management capacity is essential, and an early start to planned improvements will be important to ensure that they become fully operational over the next few years. To the extent that the authorities, as planned, turn to public-private partnerships (PPP) to finance and manage future projects, they should also strengthen their capacity to evaluate and monitor PPP-related contingent liabilities for the budget. They should also minimize their direct financial participation in PPPs and avoid providing explicit guarantees or taking on implicit contingent budget liabilities related to the financial performance of PPP projects.

17. As with the 2017-A4 DSA, the authorities acknowledge the need for prudent debt policies and stronger investment management, but question the risk rating of external debt distress. They consider that public debt is sustainable and can be serviced, even in the current environment of low commodity prices. They point to low debt service-to-revenue ratios, when excluding the servicing of deposits made at the central bank by development partners, which present low rollover risks. They look forward to the rebasing of their national accounts, which they expect will raise GDP and therefore reduce debt ratios. They acknowledge the need to strengthen public investment and debt management by implementing the recently adopted framework to prioritize projects under the public investment program, and highlight the progress made in this regard during this past year. They believe that their long-term public investment strategy is critical for Mauritania's development, and that this strategy will be viable if it generates the sustained strong economic growth and crowds-in sufficient FDI, which would serve as an alternative financing source for future development. They also note that most borrowing benefits from favorable terms. They underscore the high priority given to strengthening the governance and efficiency of public enterprises as well to improving the business climate. They also aim at relying more on financing projects through PPPs involving only a small financial participation, if any, by the government. However, in the absence of alternative financing options, they consider that it will be necessary to use external borrowing to finance projects considered critical for the country's development and demonstrated to be cost-effective.

Table 3. Mauritania: External Debt Sustainability Framework, Baseline Scenario, 2014–37 1/

(in percent of GDP, unless otherwise indicated)

	Actual			Historical 6/ Average	Standard 6/ Deviation	Projections									
	2014	2015	2016			2017	2018	2019	2020	2021	2022	2017-2022 Average	2027	2037	2023-2037 Average
External debt (nominal) 1/	**88.9**	**108.2**	**109.9**			**101.4**	**82.0**	**81.0**	**77.0**	**69.8**	**64.4**		**53.8**	**37.4**	
of which: public and publicly guaranteed (PPG)	74.1	92.8	94.0			87.3	69.8	70.3	67.9	61.9	57.9		49.3	35.1	
Change in external debt	7.0	19.3	1.7			-8.5	-19.5	-0.9	-4.1	-7.2	-5.4		-1.8	-1.3	
Identified net debt-creating flows	23.0	19.6	11.1			-1.4	0.1	-2.0	-6.2	-5.8	-4.2		-1.2	-1.3	
Non-interest current account deficit	**25.6**	**17.9**	**12.8**	**15.1**	**7.0**	**8.8**	**9.4**	**8.5**	**3.4**	**2.0**	**2.4**		**3.6**	**3.2**	3.6
Deficit in balance of goods and services	26.7	19.7	17.5			13.3	13.4	12.7	7.0	4.7	5.2		6.4	5.2	
Exports	39.0	33.8	35.1			38.6	38.3	38.4	42.9	44.4	40.8		29.4	18.3	
Imports	65.8	53.5	52.7			51.9	51.7	51.2	49.8	49.0	46.0		35.8	23.5	
Net current transfers (negative = inflow)	-2.1	-3.7	-5.1	-3.7	1.2	-2.7	-2.8	-2.9	-2.7	-2.4	-2.3		-1.9	-1.0	-1.6
of which: official	-1.2	-2.1	-3.6			-1.2	-1.3	-1.4	-1.2	-0.9	-0.9		-0.7	-0.4	
Other current account flows (negative = net inflow)	1.0	1.9	0.4			-1.7	-1.2	-1.3	-0.8	-0.3	-0.5		-0.9	-1.0	
Net FDI (negative = inflow)	**-9.3**	**-10.4**	**-5.7**	**-9.3**	**8.3**	**-9.1**	**-8.6**	**-8.7**	**-5.6**	**-4.2**	**-4.2**		**-3.4**	**-3.6**	-3.6
Endogenous debt dynamics 2/	**6.7**	**12.0**	**4.0**			**-1.2**	**-0.7**	**-1.7**	**-4.0**	**-3.6**	**-2.4**		**-1.5**	**-0.9**	
Contribution from nominal interest rate	1.7	1.9	2.2			2.0	1.9	1.9	1.8	1.6	1.4		0.8	0.8	
Contribution from real GDP growth	-4.9	-0.8	-1.7			-3.2	-2.6	-3.6	-5.8	-5.2	-3.8		-2.2	-1.7	
Contribution from price and exchange rate changes	9.9	10.9	3.6			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**-16.1**	**-0.3**	**-9.4**			**-7.1**	**-19.6**	**1.1**	**2.1**	**-1.4**	**-1.3**		**-0.6**	**-0.1**	
of which: exceptional financing	-0.2	-0.1	0.0			-0.1	-18.7	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	91.2			84.2	63.9	62.5	58.8	53.2	48.9		41.2	29.4	
In percent of exports	...	...	259.7			218.0	166.7	162.7	137.1	119.9	119.8		140.0	161.1	
PV of PPG external debt	**...**	**...**	**75.2**			**70.1**	**51.7**	**51.8**	**49.7**	**45.2**	**42.3**		**36.7**	**27.1**	
In percent of exports	**...**	**...**	**214.2**			**181.3**	**134.9**	**134.8**	**116.0**	**102.0**	**103.9**		**124.9**	**148.4**	
In percent of government revenues	**...**	**...**	**292.6**			**268.0**	**198.2**	**200.4**	**197.5**	**179.2**	**166.9**		**144.4**	**106.7**	
Debt service-to-exports ratio (in percent)	**11.9**	**15.5**	**16.6**			**16.4**	**20.9**	**20.1**	**17.0**	**14.5**	**13.8**		**12.3**	**17.4**	
PPG debt service-to-exports ratio (in percent)	**6.4**	**8.6**	**9.6**			**10.5**	**15.3**	**15.1**	**12.9**	**11.0**	**10.7**		**12.3**	**17.4**	
PPG debt service-to-revenue ratio (in percent)	**10.0**	**10.6**	**13.2**			**15.5**	**22.5**	**22.5**	**21.9**	**19.3**	**17.3**		**14.3**	**11.8**	
Total gross financing need (Billions of U.S. dollars)	1.3	0.8	0.8			0.6	0.8	0.7	0.6	0.6	0.6		0.6	0.8	
Non-interest current account deficit that stabilizes debt ratio	18.7	-1.3	11.1			17.3	28.9	9.4	7.5	9.1	7.9		5.5	4.6	
Key macroeconomic assumptions															
Real GDP growth (in percent)	5.6	0.8	1.6	3.2	2.5	3.1	2.7	4.5	7.5	7.3	5.9	5.2	4.3	4.7	4.6
GDP deflator in US dollar terms (change in percent)	-10.8	-10.9	-3.2	1.6	10.5	4.4	1.2	-2.4	-1.3	0.8	2.1	0.8	1.4	2.2	1.8
Effective interest rate (percent) 5/	1.9	1.9	2.0	1.5	0.9	2.0	2.0	2.4	2.3	2.2	2.2	2.2	1.5	2.1	1.7
Growth of exports of G&S (US dollar terms, in percent)	-25.1	-22.3	2.2	4.2	24.5	18.5	3.1	2.2	18.5	11.9	-0.7	8.9	-3.4	0.0	1.0
Growth of imports of G&S (US dollar terms, in percent)	-12.3	-27.0	-3.2	9.0	25.1	6.2	3.6	0.9	3.4	6.5	1.3	3.6	0.0	0.0	1.8
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	34.0	33.8	33.7	33.7	32.9	32.8	33.5	30.3	19.7	26.5
Government revenues (excluding grants, in percent of GDP)	24.8	27.5	25.7			26.1	26.1	25.8	25.2	25.3	25.4		25.4	25.4	25.4
Aid flows (in Billions of US dollars) 7/	0.0	0.1	0.1			0.1	0.2	0.2	0.2	0.1	0.1		0.2	0.2	
of which: Grants	0.0	0.1	0.1			0.0	0.0	0.1	0.0	0.0	0.0		0.0	0.1	
of which: Concessional loans	0.0	0.0	0.0			0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			2.3	3.0	3.2	2.9	2.0	1.9		1.6	1.1	1.4
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			42.5	41.1	42.2	41.5	40.5	40.6		36.7	27.9	33.6
Memorandum items:															
Nominal GDP (Billions of US dollars)	5.4	4.8	4.8			5.1	5.3	5.4	5.8	6.2	6.7		9.0	17.3	
Nominal dollar GDP growth	-5.8	-10.2	-1.7			7.7	3.9	2.0	6.2	8.2	8.1	6.0	5.7	7.1	6.5
PV of PPG external debt (in Billions of US dollars)			3.5			3.6	2.7	2.7	2.8	2.8	2.8		3.3	4.6	
(PVt-PVt-1)/GDPt-1 (in percent)						1.7	-18.5	1.1	1.0	0.3	0.5	-2.3	1.0	1.1	1.1
Gross workers' remittances (Billions of US dollars)	0.0	0.1	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)	...	...	74.1			69.0	51.0	51.0	49.0	44.6	41.8		36.3	26.9	
PV of PPG external debt (in percent of exports + remittances)	...	...	205.1			174.5	129.8	129.7	112.1	98.8	100.5		120.0	143.2	
Debt service of PPG external debt (in percent of exports + remittanc	...	...	9.2			10.1	14.7	14.5	12.5	10.7	10.4		11.9	16.8	

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

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

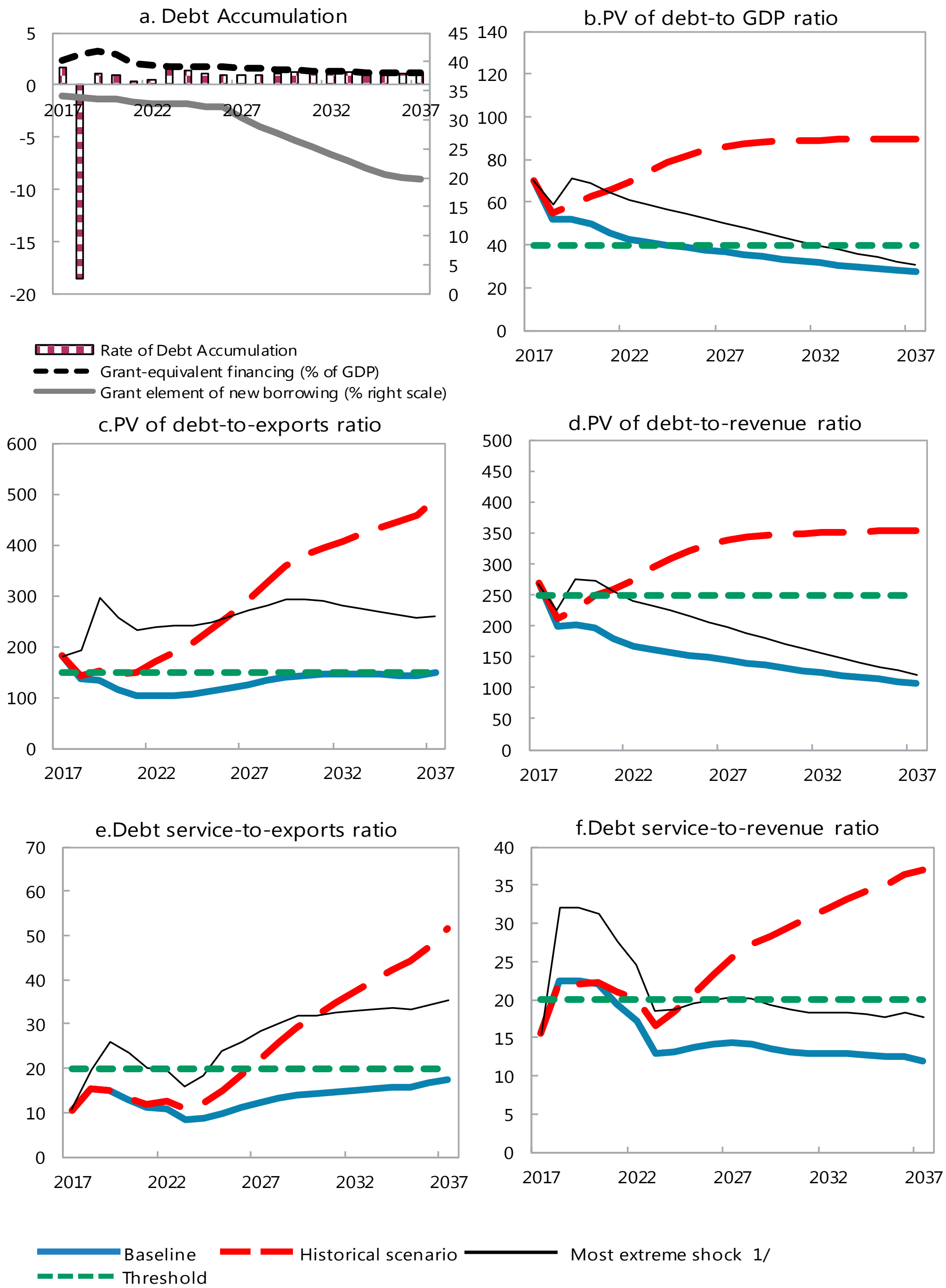
5/ Current-year interest payments divided by previous period debt stock.

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).

Figure 1. Mauritania: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2017–37 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 2027. In figure b. it corresponds to a Combination shock; in c. to a Exports shock; in d. to a Combination shock; in e. to a Exports shock and in figure f. to a One-time depreciation shock

Table 4. Mauritania: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2017–37

(In percent)

	Projections							
	2017	2018	2019	2020	2021	2022	**2027**	2037
PV of debt-to GDP ratio								
Baseline	70	52	52	50	45	42	**37**	27
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	70	55	58	63	66	70	**86**	90
A2. New public sector loans on less favorable terms in 2017-2037 2/	70	51	53	52	49	47	**46**	43
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	70	51	53	51	47	44	**38**	28
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	70	57	68	66	62	59	**48**	28
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	70	56	60	57	53	50	**43**	32
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	70	56	62	60	56	53	**44**	28
B5. Combination of B1-B4 using one-half standard deviation shocks	70	59	71	69	64	61	**50**	31
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	70	71	71	68	63	59	**51**	38
PV of debt-to-exports ratio								
Baseline	181	135	135	116	102	104	**125**	148
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	181	143	152	147	148	171	**292**	491
A2. New public sector loans on less favorable terms in 2017-2037 2/	181	134	137	121	111	116	**155**	234
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	181	131	130	112	101	102	**123**	146
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	181	191	295	255	232	238	**270**	258
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	181	131	130	112	101	102	**123**	146
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	181	146	162	140	127	130	**149**	152
B5. Combination of B1-B4 using one-half standard deviation shocks	181	163	211	182	165	169	**194**	192
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	181	131	130	112	101	102	**123**	146
PV of debt-to-revenue ratio								
Baseline	268	198	200	198	179	167	**144**	107
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	268	211	225	250	260	274	**338**	353
A2. New public sector loans on less favorable terms in 2017-2037 2/	268	197	204	206	196	186	**180**	168
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	268	195	205	202	187	174	**151**	111
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	268	217	265	262	245	231	**189**	112
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	268	213	231	227	211	196	**170**	125
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	268	214	241	238	223	209	**173**	110
B5. Combination of B1-B4 using one-half standard deviation shocks	268	226	276	273	255	239	**197**	122
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	268	273	275	271	251	234	**202**	150

Table 4. Mauritania: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt 2017–37 (concluded)

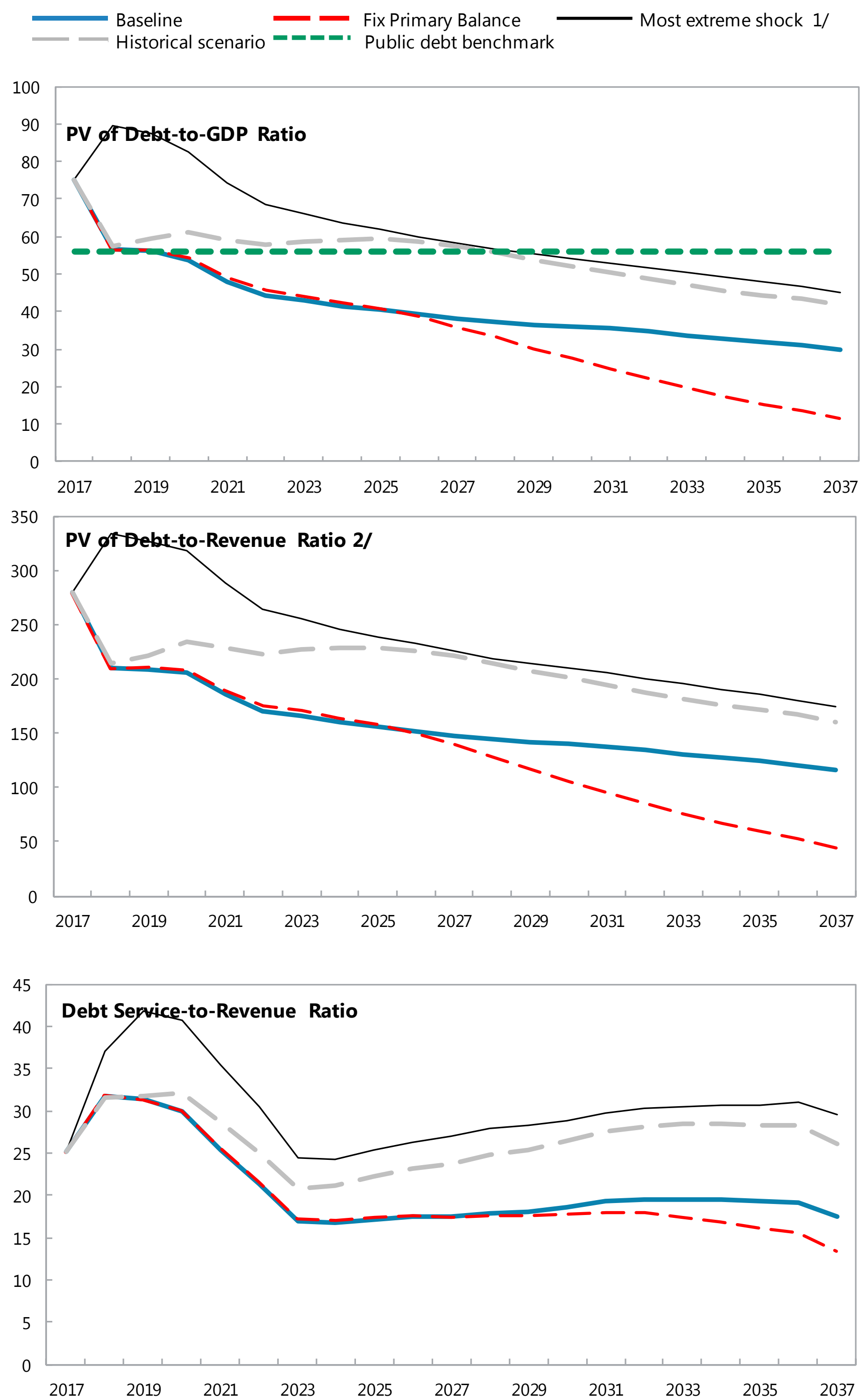
(In percent)

	Projections							
	2017	2018	2019	2020	2021	2022	**2027**	2037
Debt service-to-exports ratio								
Baseline	10	15	15	13	11	11	**12**	17
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	10	15	15	13	12	13	**22**	51
A2. New public sector loans on less favorable terms in 2017-2037 2/	10	15	15	13	12	12	**14**	24
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	10	15	15	13	11	11	**12**	17
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	10	20	26	23	20	20	**28**	35
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	10	15	15	13	11	11	**12**	17
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	10	15	16	14	12	11	**15**	20
B5. Combination of B1-B4 using one-half standard deviation shocks	10	17	19	17	15	15	**20**	26
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	10	15	15	13	11	11	**12**	17
Debt service-to-revenue ratio								
Baseline	15	23	22	22	19	17	**14**	12
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	15	22	22	22	21	20	**26**	37
A2. New public sector loans on less favorable terms in 2017-2037 2/	15	23	23	22	20	19	**16**	17
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	15	23	24	23	20	18	**15**	13
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	15	23	23	24	21	19	**20**	15
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	15	25	27	26	23	21	**17**	15
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	15	23	23	23	21	18	**18**	14
B5. Combination of B1-B4 using one-half standard deviation shocks	15	24	25	26	23	21	**21**	16
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	15	32	32	31	27	25	**20**	18
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	24	24	24	24	24	24	**24**	24

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, 2017–37 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 2027.
2/ Revenues are defined inclusive of grants.

Table 5. Mauritania: Public Sector Debt Sustainability Framework, Baseline Scenario, 2014–37
(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2014	2015	2016	Average 5/	Standard Deviation 5/	2017	2018	2019	2020	2021	2022	2017-22 Average	2027	2037	2023-37 Average
Public sector debt 1/	80.4	98.4	98.7			92.3	74.4	74.6	71.7	64.6	59.7		50.8	37.8	
of which: foreign-currency denominated	74.1	92.8	94.0			87.3	69.8	70.3	67.9	61.9	57.9		49.3	35.1	
	6.2	5.7	4.7			5.0	4.7	4.3	3.8	2.7	1.8				
Change in public sector debt	9.8	18.1	0.3			-6.4	-17.8	0.2	-2.9	-7.1	-4.9		-1.7	-1.4	
Identified debt-creating flows	10.7	12.9	-1.1			-8.7	-18.7	-1.8	-4.9	-7.4	-5.3		-1.0	-0.9	
Primary deficit	3.5	2.2	-0.8	0.6	2.2	-1.2	-1.2	-1.5	-1.7	-1.7	-1.6	-1.5	0.9	0.8	0.8
Revenue and grants	25.0	29.3	27.6			26.8	26.9	26.8	26.0	25.8	25.9		25.8	25.8	
of which: grants	0.1	1.8	1.9			0.7	0.8	1.0	0.8	0.6	0.5		0.4	0.4	
Primary (noninterest) expenditure	28.4	31.5	26.8			25.7	25.7	25.3	24.3	24.1	24.3		26.7	26.6	
Automatic debt dynamics	7.2	10.7	-0.3			-7.6	1.2	-0.2	-3.2	-5.7	-3.7		-1.9	-1.7	
Contribution from interest rate/growth differential	-3.5	0.0	-1.7			-3.9	-3.1	-3.3	-5.3	-5.0	-3.7		-1.2	-0.9	
of which: contribution from average real interest rate	0.2	0.6	-0.2			-0.9	-0.7	-0.1	-0.1	-0.1	-0.2		0.9	0.9	
of which: contribution from real GDP growth	-3.7	-0.6	-1.5			-3.0	-2.4	-3.2	-5.2	-4.9	-3.6		-2.1	-1.8	
Contribution from real exchange rate depreciation	10.7	10.7	1.4			-3.6	4.2	3.1	2.2	-0.7	0.0		...	...	
Other identified debt-creating flows	0.0	0.0	0.0			0.0	-18.7	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	-18.7	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	-0.9	5.2	1.4			2.3	0.9	1.9	2.0	0.3	0.4		-0.6	-0.5	
Other Sustainability Indicators															
PV of public sector debt	...	...	79.9			75.0	56.4	56.1	53.5	47.9	44.1		38.1	29.9	
of which: foreign-currency denominated	...	...	75.2			70.1	51.7	51.8	49.7	45.2	42.3		36.7	27.1	
of which: external	...	...	75.2			70.1	51.7	51.8	49.7	45.2	42.3		36.7	27.1	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	13.6	14.7	10.5			9.9	12.0	11.1	9.9	8.2	6.4		6.8	8.0	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	289.9			279.5	209.6	209.0	205.6	185.8	170.2		147.6	115.6	
PV of public sector debt-to-revenue ratio (in percent)	...	...	311.0			287.0	216.1	216.9	212.4	189.8	173.9		150.0	117.5	
of which: external 3/	...	...	292.6			268.0	198.2	200.4	197.5	179.2	166.9		144.4	106.7	
Debt service-to-revenue and grants ratio (in percent) 4/	23.4	20.7	21.7			25.2	31.8	31.4	30.0	25.4	21.4		17.5	17.6	
Debt service-to-revenue ratio (in percent) 4/	23.5	22.0	23.3			25.8	32.8	32.5	30.9	26.0	21.8		17.8	17.9	
Primary deficit that stabilizes the debt-to-GDP ratio	-6.3	-15.9	-1.0			5.3	16.6	-1.7	1.2	5.4	3.3		2.5	2.2	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	5.6	0.8	1.6	3.2	2.5	3.1	2.7	4.5	7.5	7.3	5.9	5.2	4.3	4.7	4.6
Average nominal interest rate on forex debt (in percent)	1.2	1.1	1.2	0.8	0.9	1.2	1.2	1.6	1.6	1.5	1.5	1.4	1.6	2.3	1.8
Average real interest rate on domestic debt (in percent)	16.0	9.6	-0.5	4.8	8.6	-0.9	3.4	6.3	4.5	4.4	6.3	4.0	8.9	2.9	6.3
Real exchange rate depreciation (in percent, + indicates depreciation)	17.2	14.5	1.5	0.7	9.4	-4.0	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	-9.2	-4.3	5.0	4.4	8.5	6.0	4.2	4.5	5.6	5.4	4.2	5.0	3.6	4.4	3.9
Growth of real primary spending (deflated by GDP deflator, in percent)	25.3	11.9	-13.7	3.0	11.3	-1.2	2.7	2.9	3.5	6.3	6.8	3.5	6.7	18.4	6.1
Grant element of new external borrowing (in percent)	...	...	...	...	...	34.0	33.8	33.7	33.7	32.9	32.8	33.5	30.3	19.7	...

Sources: Country authorities; and staff estimates and projections.

1/ Public sector debt includes public and publicly guaranteed debt contracted by the central government, central bank, and public enterprises excluding SNIM (except for governement guarantees).
Debt is recorded on a gross basis.

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 6. Mauritania: Sensitivity Analysis for Key Indicators of Public Debt, 2017–37

	Projections							
	2017	2018	2019	2020	2021	2022	2027	2037
PV of Debt-to-GDP Ratio								
Baseline	75	56	56	53	48	44	38	30
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	75	57	59	61	59	58	57	42
A2. Primary balance is unchanged from 2017	75	56	56	54	49	45	36	11
A3. Permanently lower GDP growth 1/	75	57	57	55	50	47	46	52
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	75	58	61	59	54	51	50	48
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	75	59	62	60	54	50	43	33
B3. Combination of B1-B2 using one half standard deviation shocks	75	59	63	60	55	52	48	42
B4. One-time 30 percent real depreciation in 2018	75	90	88	83	74	69	58	45
B5. 10 percent of GDP increase in other debt-creating flows in 2018	75	64	64	61	55	51	44	34
PV of Debt-to-Revenue Ratio 2/								
Baseline	280	210	209	206	186	170	148	116
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	280	214	222	234	228	222	221	160
A2. Primary balance is unchanged from 2017	280	210	210	208	190	175	139	44
A3. Permanently lower GDP growth 1/	280	211	212	211	193	180	176	199
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	280	215	226	227	210	197	192	184
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	280	221	233	229	208	192	167	127
B3. Combination of B1-B2 using one half standard deviation shocks	280	219	233	232	213	199	184	161
B4. One-time 30 percent real depreciation in 2018	280	333	327	317	288	264	225	174
B5. 10 percent of GDP increase in other debt-creating flows in 2018	280	237	238	234	213	196	171	130
Debt Service-to-Revenue Ratio 2/								
Baseline	25	32	31	30	25	21	17	18
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	25	32	32	32	29	25	24	26
A2. Primary balance is unchanged from 2017	25	32	31	30	26	22	17	13
A3. Permanently lower GDP growth 1/	25	32	32	30	26	22	19	24
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	25	32	33	32	27	23	20	23
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	25	32	32	31	27	22	19	19
B3. Combination of B1-B2 using one half standard deviation shocks	25	32	33	32	27	23	20	22
B4. One-time 30 percent real depreciation in 2018	25	37	42	41	35	31	27	29
B5. 10 percent of GDP increase in other debt-creating flows in 2018	25	32	32	32	26	22	20	20

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.