INTERNATIONAL MONETARY FUND

REPUBLIC OF MOZAMBIQUE

STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

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Mozambique's debt is currently in distress, and total public debt is on an unsustainable path. The stark deterioration relative to the previous moderate debt distress rating has been driven by the delayed fiscal policy response to weaker commodity prices, limited control on State-owned enterprises (SOE) borrowing that resulted in large undisclosed external debt (of about $1.4 billion), and real exchange rate depreciation (48 percent since end-2014, even after accounting for the appreciation in 2017).

The DSA update[1] shows that the PV of external public and publicly guaranteed (PPG) debt relative to GDP (as well as relative to exports and revenues), and the ratio of external debt service relative to revenues, surpass by more than 50 percent the prudent thresholds for several years. The sovereign has been accumulating substantial external and domestic arrears (i.e. about 5 percent of GDP in external arrears, while the total amount of domestic arrears could be ranging from 2.5 to 4.5 percent of GDP) which adversely affect growth and financing prospects. Restoring debt sustainability would involve bringing Mozambique's external debt risk rating to "moderate" over the medium term (3-4 years), and reducing the overall public debt and financing needs to prudent levels. In 2016, the authorities announced plans to restructure their commercial debt but progress has been slow. Any restructuring agreed between the authorities and the creditors would need to consider the risk of prolonged delays in LNG project implementation in coming years, which is the major driver of growth and debt reduction over the longer term. Moreover, in staff's view there are substantial downside risks to the authorities' financing plans, notably in relation to the official concessional financing for the authorities' investment plan, which still needs to be contracted.

[1] The DSA presented in this document is based on the standard low-income countries (LIC) DSA framework. See "Staff Guidance Note on Application of the Joint Bank-Fund Debt Sustainability Framework for Low-Income Countries" and World Bank Report No. ACS6956, 10/23/13. Under the World Bank Country Policy and Institutional Assessment (CPIA); updated on July 18, 2017 with the 2016 CPIA rating, Mozambique maintains medium policy performer rating, albeit a second consecutive deterioration in the rating since 2014, with an average rating of 3.43 during 2014-16; the DSA uses the indicative thresholds for medium performers.

UNDERLYING DSA ASSUMPTIONS

1. Five important developments are affecting current assumptions compared to the previous DSA update prepared at the time of the fifth PSI review and Article IV Consultation in December 2015.[2] First, accounting for previously undisclosed external loans (totaling about $1.4 billion) significantly increases the outstanding debt stock, but even more so the debt service, as illustrated in Text Table 1 and Text Figure 1. Second, the refinancing of the EMATUM bond in April 2016, while reducing the debt service over the medium term, has created a spike in debt service due to its redemption profile taking the form of a large bullet repayment of the outstanding principle in 2023. Third, the rapid depreciation of the metical in 2014-16 has led to a drastic upward shift in debt and debt service ratios. Fourth, the short- and medium-term growth projections have been revised downward. And, fifth, there has been further delay in the investment and production schedule of natural gas projects, with investment beginning only in late 2017 for the Area 4 Coral project and production assumed to begin in 2023. The Area 1 project is assumed to start only in the second half of 2019, and production in 2024, respectively.

Text Table 1. Mozambique: Debt, Public and Publicly Guaranteed
(Percent of GDP)

	2013	2014	2015	2016	2017p
Public sector debt [1]	**53.1**	**62.4**	**88.1**	**128.3**	**112.0**
Public sector external debt (incl. guarantees) (A+B+C)	**47.0**	**55.8**	**76.4**	**103.7**	**85.2**
A. Bank of Mozambique-IMF	1.1	1.1	1.9	2.2	1.3
B. General Government	36.3	44.8	62.4	88.9	72.7
Multilateral creditors, excl IMF	21.1	20.8	28.2	39.1	29.9
Bilateral creditors [1]	15.2	20.8	30.9	42.3	32.2
Paris Club	2.6	3.3	5.1	7.8	6.7
Banks	0.0	3.2	3.3	7.5	5.4
EMATUM/Mozam Eurobond	0.0	3.2	3.3	7.5	5.4
Other public sector : *ENH (Coral LNG project)*	0.0	0.0	0.0	0.0	5.2
C. Government guaranteed external debt	9.5	9.9	12.1	10.8	5.9
EMATUM	5.3	2.2	2.7	0.0	0.0
Proindicus	3.9	3.9	4.8	6.2	3.6
MAM	0.0	3.4	4.2	4.1	2.0
Other guarantees	0.3	0.4	0.4	0.5	0.3
Public sector domestic debt (incl. guarantees)	**6.2**	**6.5**	**11.7**	**24.6**	**26.7**

Sources: Mozambique authorities; and IMF Staff calculations and projections.

[1] This reflects the latest end-2016 debt stock data shared with IMF Staff in December 2017, and disbursements data from January to November for 2017. It includes the external arrears. Domestic debt includes domestic debt of a selected number of SOEs for 2016 and 2017, for which data was available. The selection criteria are set in the Joint IMF-Bank Guidance Note on Low-Income Countries Debt Sustainability Framework. The 2017 estimate includes ENH borrowing from external partners for its participation in Area 4 Coral LNG project.

[2] See IMF Country Report No. 16/9.

2. The macroeconomic outlook is expected to deteriorate compared to the previous Article IV DSA update (see Text Table 3)**.** Under the baseline scenario described in the staff report, the economic outlook is considerably less buoyant than previously projected, with economic growth projected at 3 percent in 2017 (compared to 7.2 percent in the previous Article IV DSA; the 2016 outcome was also lower than projected in 2015). This reflects the ongoing slowdown amid a loss of confidence after the previously undisclosed loans were revealed to the public and consequently triggered a freeze of budget support disbursement by donors. It also reflects, in 2016, adverse weather conditions. While substantial tightening of monetary policy has stabilized the exchange rate market in late 2016 and in 2017, and supported the correction of external imbalances, output growth is not expected to recover over the medium term as fiscal policy is assessed to remain loose, and domestic arrears to suppliers are expected to accumulate (to about 20 percent of GDP by 2023) as domestic financing is expected to reach its limits by end-2018. Growth is expected to recover only in 2023 on the back of the start of production of natural gas projects. The overall fiscal deficit (on a modified cash basis, excluding the 2017 one-off capital gain tax revenue) is expected to reach 8.2 percent of GDP in 2017, up from 7.6 percent in 2016, and to deteriorate further by 2023. The current account deficit is projected to increase to over 118 percent of GDP by 2023 reflecting a surge in imports of goods and services mainly related to construction of processing facilities for liquefied natural gas (LNG). Approximately one third of all imports related to such investments are financed by (frontloaded) FDI with the remainder financed by private debt.

3. The risks to the macroeconomic outlook are assessed to be numerous and the likelihood of downside risks higher. In the near term, the main risk relates to a disorderly adjustment due to a drying up of financing the fiscal deficits. Even if the authorities adhered to a lesser than projected spending envelope, the projected fiscal gap over the medium term is too large to be financed through a continuous accumulation of arrears. The accumulation of domestic and external arrears exerts several other negative effects such as increased crowding out of the private sector in credit markets and decreasing confidence, with potentially even more adverse effects on growth and the external sector than currently assumed in the baseline. Another near-term risk relates to whether the external sector's recent stabilization can be sustained only through monetary policy action over a prolonged period. Over the medium term, a substantial delay in the implementation of the Anadarko LNG project constitutes the main risk. In staff's view, given current financing prospects, there are also substantial downside risks to the authorities' external financing plans in relation to still-to-be-contracted concessional financing for the authorities' development investment plan. There are also several mitigating factors related to expansion in the coal and LNG sectors.[3] A further recovery of commodity prices, new oil and gas discoveries resulting from recently extended exploration rights, other FDI projects, or, over time. initiation of phase 2 of the natural gas projects would constitute upside risks.

4. The authorities have scaled back considerably contracting of government external debt. Projections assume that a prudent stance on new borrowing would be retained in the medium term. The authorities have currently put on hold, since the second half of 2017, the negotiations of large projects in

[3] The drag on growth of fiscal consolidation is projected to be offset by an ongoing expansion of coal production in light of the now completed Nacala rail corridor. During 2019-22, LNG investment should boost growth mainly due to higher activity in the construction sector.

pipeline financed on non-concessional terms. New disbursements from multilateral and bilateral creditors are assumed to be in line with the projects that are on-going or loans previously signed but not yet disbursed. New borrowing for projects in pipeline is assumed to gradually resume being contracted with multilateral and bilateral creditors largely from 2020 onwards as approaching the date when the LNG exports come on stream. The financing assumptions are in line with the long-term output growth projections for Mozambique, which are largely driven by the LNG exports coming on stream from 2023 onwards. There are, however, significant risks related to the availability of financing, in particular for large concessional official financing over the medium term. If the negative risks around the baseline materialize in 2018, external financing would need to be significantly revised down. A further delay in the LNG projects implementation constitutes another high risk. Text Figure 3 shows the assumed external disbursements and the financing assumptions up to 2023.

5. **Mozambique is currently in default, as the sovereign started to accumulate external arrears in 2016.** Projections assume that the arrears on the defaulted loans will continue to accumulate over the projection horizon. Sovereign arrears have been incurred on the Mozam Eurobond coupon and on the debt service of Proindicus and MAM. The March 2016 debt service payments on the Ematum and Proindicus loans were met, but required a $200 million loan from the Bank of Mozambique directly to the government. The overall stock of external arrears on public and publicly guaranteed external debt service has reached $710 million at end-2017 (see Text Table 2), including arrears under bilateral discussion with five official creditors amounting to $94 million (Libya, Iraq, Angola, Bulgaria and Poland)[4] and arrears amounting to about $23 million to Brazil on a $125 million state-guaranteed borrowing undertaken by the state-owned airport company for which the guarantee has been called.[5, 6] The government is

Text Table 2. Mozambique: Stock of External Arrears
(Millions of U.S. dollars)[1]

	End-2017
Commercial debt	592.86
Mozam	97.90
MAM	343.06
Proindicus	151.90
Bilateral debt	116.80
Paris Club: Brazil	22.93
Non-Paris Club [2]	93.87
Total	**709.66**

[1] Staff estimates based on information provided by the authorities. Contractual penalty fees or rates have not been included.

[2] Data reported by the authorities for Libya, Iraq, Angola, Poland and Bulgaria on the reconciled debt.

[4] The arrears with Libya, Iraq, Angola, Bulgaria and Poland are not new arrears. The authorities have reconciled the debt with these non-Paris Club creditors dating from the HIPC Initiative in 2006, 2011, and 2015, respectively, and are negotiating several solutions with these creditors for the restructuring of this debt. While the negotiations are on-going, the debt payment obligations incurred from the date of reconciliation until end-2017 have been included in the stock of arrears in line with the terms of the reconciliation registered in authorities' external debt database.

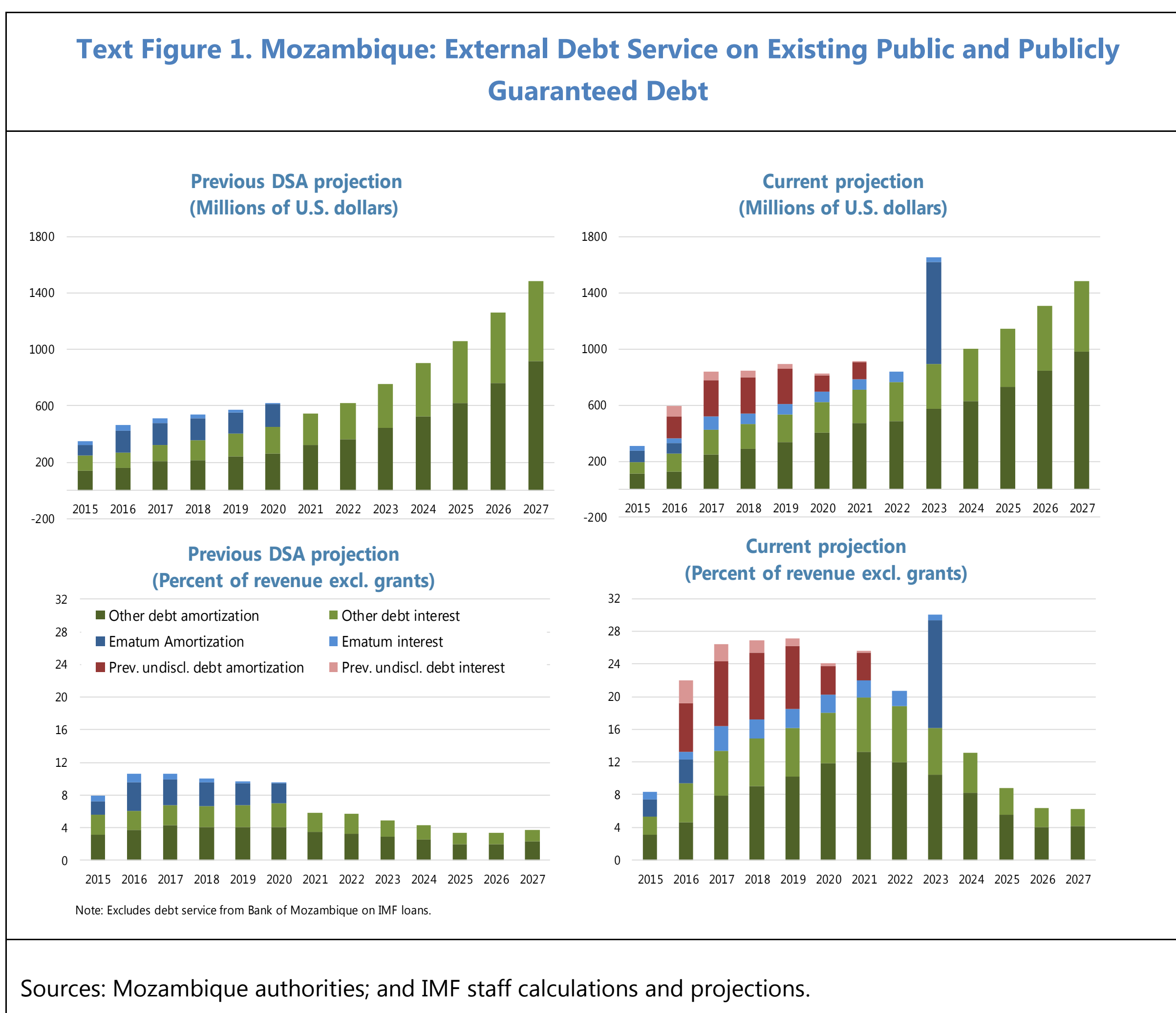
[5] Contractual penalty fees or rates on missed payments have not yet been included in the estimate for the stock of arrears reflected in the baseline.

[6] The two loans from the Brazilian Development Bank (BNDES) to the state-owned airports company, *Aeroportos de Mozambique* (AdM) were also guaranteed to BNDES by the Brazilian Export Guarantee Fund (this guarantee has also been called).

servicing all the remaining multilateral and bilateral external debt obligations.[7] While negotiations remain ongoing on solutions to regularize these arrears, it is staff's understanding that the authorities plan to hold off on making payments on the defaulted loans.

6. The government announced a debt restructuring in October 2016 and has initiated discussions with selected creditors. However, no significant progress has been made so far, and, therefore, the projections do not include any assumptions on the debt restructuring. A major step to initiate these discussions was the hiring in spring of 2016 of reputable financial and legal advisors. The authorities are focusing their restructuring efforts on the MAM and Proindicus loans, and the Mozam (ex-Ematum) Eurobond, but also on potential re-profiling of highly non-concessional bilateral loans.[8]

Text Figure 1. Mozambique: External Debt Service on Existing Public and Publicly Guaranteed Debt

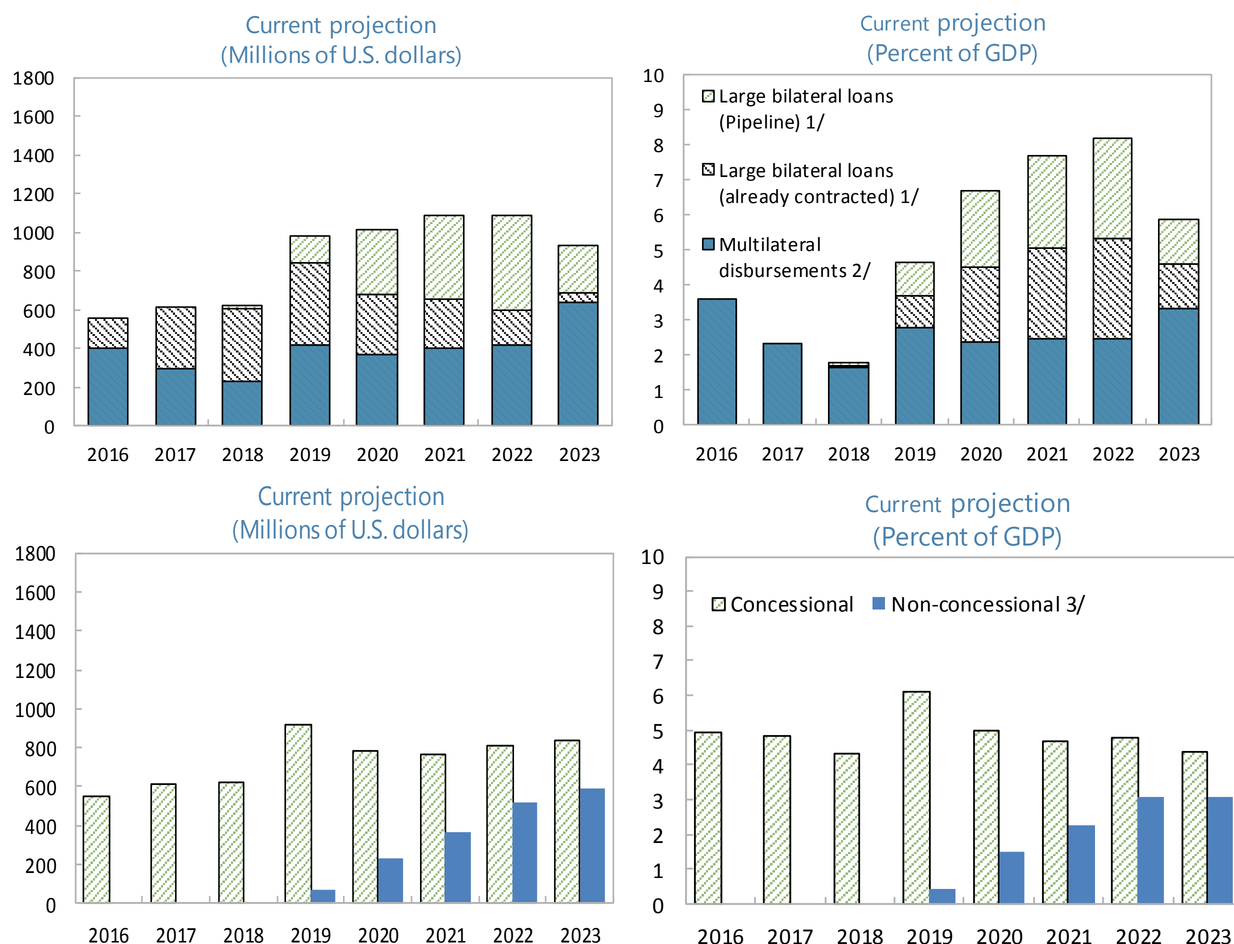


Sources: Mozambique authorities; and IMF staff calculations and projections.

[7] Based on the authorities' data reporting during the 2017 Article IV consultations.

[8] Based on the authorities reporting during the Article IV mission, an agreement has been reached with China and India on the re-scheduling of debt service payments on several bilateral loans. The new schedule of re-payments has been included in the baseline assumptions.

Text Figure 2. Mozambique: Public Sector External Disbursement Path



[1] Large bilateral loans are those with amounts exceeding US$60 million.

[2] Also includes disbursements on small bilateral loans.

[3] Negotiations put on hold in the second half of 2017; gradually resume in the second half of 2019 for large projects.

7. **Finally, a large government guarantee may need to be issued in the short term in favor of the hydrocarbon SOE, ENH, to ensure that Anadarko LNG investment can move forward.** ENH holds a 15 percent share in the Area 1 natural gas project, which is being developed by an Anadarko-led consortium. The planned development cost for the LNG processing facilities and associated investments is around $25 billion, of which about $15 billion will be debt financed. As ENH would be liable for 15 percent of this debt, the guarantee required by the consortium of export credit agencies and commercial banks assembled to provide this financing could amount to about $2¼ billion, which together with the equity borrowing from the partners of about $1.5 billion, would increase the PPG debt stock in line with the

disbursement plans.[9] The guarantee could only be called if the project was not completed or if there were extraordinarily lengthy delays in project completion.[10] In addition to the Area 1 project, ENH also holds a 10 percent share in the Area 4 natural gas projects, which is being developed by the ENI-led consortium. The planned development cost for the LNG processing facilities and associated investments is around $7 billion, of which about $4.5 billion is debt financed. While no government guarantee has been required for the debt financing of the project, the 10 percent share of ENH, amounting to about $700 million, would increase the PPG debt as it represents borrowing from external partners. The ENH shares both in Area 1 and Area 4 have been included in the DSA without increasing gross financing needs, as the debt service will be serviced out of projects' revenues, from ENH share in profits.

Text Table 3. Evolution of Selected Macroeconomic Indicators Between DSA Updates

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
				Projections						
Real GDP growth (%) [1]										
Previous DSA (PSI, 5th review)	7.2	6.3	6.5	7.2	8.3	7.6	7.5	33.9	14.0	...
Current DSA	7.4	6.6	3.8	3.0	3.0	2.5	2.4	2.3	2.2	9.9
Nominal GDP (US$ billion)										
Previous DSA (PSI, 5th review)	17.0	15.2	14.8	16.4	18.4	20.5	22.8	31.4	36.7	...
Current DSA	16.9	14.8	11.3	12.7	14.3	15.0	15.7	16.4	17.1	19.1
Overall fiscal deficit (%GDP)										
Previous DSA (PSI, 5th review)	10.6	6.0	4.0	4.3	4.4	4.2	4.3	1.3	2.0	...
Current DSA	10.7	7.2	7.6	5.5	7.5	10.8	9.9	9.6	10.6	9.9
Current account deficit (% GDP)										
Previous DSA (PSI, 5th review)	34.1	30.2	33.1	55.4	73.2	80.8	90.4	73.2	65.5	...
Current DSA	38.2	40.3	39.2	16.1	16.9	44.6	66.6	91.0	116.4	117.7
FDI (% of GDP) [2]										
Previous DSA (PSI, 5th review)	28.9	25.2	30.6	28.3	27.3	27.4	27.1	18.9	16.6	...
Current DSA	29.6	26.1	27.8	12.4	12.6	34.8	53.7	75.2	20.0	4.0

Source: IMF staff calculations and projections.

[1] Real GDP growth in the previous DSA jumped in 2021 due to the coming onstream of the first LNG production. In the current DSA, this is now projected for 2023.

[2] High FDI over the medium term is driven by LNG investment. The current DSA now assumes that the FDI share of such investment would enter first before switching to debt financing in 2021.

[9] No guarantee would be needed for ENH's equity share which will be financed by the Anadarko-led consortium with repayments coming out of LNG revenues during the first years of the project's operation.

[10] In the agreements, a two-year buffer is planned to be included between the expected completion data for the facilities and the deadline at which the guarantee could be called. If force majeure is involved, this buffer would increase to three years. Meanwhile, risks emanating from adverse gas price movements do not constitute a major concern, because the projects would be supported by long-term sales contracts with gas off-takers.

Box 1. Macroeconomic Assumptions 2017–2037

The medium-term assumptions in the Baseline Scenario for 2017-2037 are consistent with the medium-term macroeconomic framework in Annex 1.

Real GDP growth is not expected to recover and remain around a 2.2-2.5 percent range over the medium term, supported mainly by the expansion in coal mining and infrastructure investments, including LNG manufacturing. A sharp increase in growth in 2023 reflects the assumed coming on line of the first natural gas production plant ("train") and related exports in that year. Overall GDP growth will moderate once LNG production reaches its full capacity in 2028. Risks to long-term growth include public and private investment not achieving expected payoffs and thus limiting productivity gains, and the possibility of Dutch disease.

LNG sector. LNG plants totaling 13 onshore LNG manufacturing units ("trains") and 4 floating trains (FLNG), are assumed to be under construction from late 2017 through 2027. The first onshore train and the first floating train are assumed to start production in 2023, followed by remaining trains sequentially starting production. The final train will start production in 2029, by which time the value of production could approach $40 billion. Total investment from 2017 is projected at $110 billion. The schedule and size of the projects is highly ambitious and depend on the timing and content of final investment decisions, the first one has been made by the investors at end-2017. The assumption is subject to significant implementation risks and changes in gas market conditions.

Consumer price inflation is projected to gradually slow down to the authorities' target range of 5–6 percent over the medium term.

Export value growth is projected to be positive (27.6 percent) in 2017, as coal exports expanded much faster than expected in light of completion of the Nacala rail corridor, and despite the decrease in traditional exports by 8.7 percent. Over the medium-term exports are expected to fall back to around 3 percent, as economic activity slows down and coal exports reach potential. The coming on stream of LNG exports causes large increases in exports starting in 2023 (over 50 percent export value growth on average during 2023-26. The start of LNG production and exports was delayed by two years compared to the previous Art IV DSA. From the late 2020s onwards, export growth to fall back to the 2-3 percent range, as LNG exports are not projected to expand further.

Imports in the non-megaproject economy are projected to contract only slightly in 2017 supported by the metical appreciation. In the medium term, total imports would grow by more than 35 percent on average during 2019-22 as a result of LNG investment. Meanwhile, non-megaproject imports would remain relatively subdued growing by about 5 percent on average until 2023 as economic activity slows down. Annual non-megaproject import growth is expected to increase during 2024-28 (to about 8 percent on average), as LNG production increases available resources. Subsequently, import value growth is projected to remain subdued to around 3 percent under the baseline of current policies.

The external current account balance is projected to peak at a deficit of over 118.5 percent of GDP by 2023 driven by imports for LNG investment. The doubling of this peak compared to the previous DSA results from lower GDP, and the Metical depreciation. The current account deficit will be primarily financed through FDI and private external borrowing. The large size of LNG exports under the revised baseline implies it would subsequently turn into surplus during the mid-2020s and early 2030s. The current account deficit excluding all megaproject-related activity is projected to narrow but remain at elevated levels of about 15 to 18 percent of GDP over the medium term (from 22 percent of GDP in 2016) on the back of slowdown in economic activity, but also helped by the LNG investment inflows a fraction of which would go to procurement of domestic goods and services and thus support the external position.[1] Subsequently, the non-mega project current account deficit (excluding all megaproject-related activity) is projected in terms of GDP to mechanically decline to 9.7 percent by 2025 and in the long run, given the impact on GDP of the LNG gas projects.

Box 1. Macroeconomic Assumptions 2017–37 (concluded)

The primary fiscal deficit (on a modified cash basis) stood at 6.4 percent of GDP in 2015, and decreased to 4.6 percent of GDP in 2016. It is projected to remain at 4.5 percent of GDP in 2017 (when excluding the one-off 2017 capital gains tax revenues), narrow to 3.2 percent of GDP with the 2018 Budget, and then reverse to deficits of 5-7.5 percent of GDP during 2019-2022. The primary fiscal balance is expected to stay in deficit beyond 2023, and revert to balance by late 2020s. Even though the gas production would rapidly scale up during the early 2020s, fiscal revenues during the first few years are limited, because of the large cost recovery for continuous investments in building liquefaction plants. By the late 2020s, the fiscal revenues from the gas projects would account for more than half of total fiscal revenues.[2]

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[1] While this fraction can be expected to be small, the large size of the LNG investment would nonetheless make it important for the balance of payments.

[2] We assume that fiscal revenues remain broadly constant as a percentage of GDP after the sizeable boost to real GDP from LNG production. This implicitly reflects the fiscal impact of LNG production. We consider this to be a rather conservative assumption, as the tax take out of LNG revenues, as suggested by the FARI model, can be substantially higher. Fully incorporating such revenues would constitute a significant upside risk to the fiscal framework going forward.

EXTERNAL DEBT SUSTAINABILITY ANALYSIS

8. **The risk rating of Mozambique's external PPG is re-classified to "in distress", while total public debt is assessed to be on an unsustainable path.** All five public external debt indicators breach their respective thresholds in the near and/or medium-term under the baseline (Baseline Scenario Figure 1)[11], four of which by more than 50 percent of their respective threshold for several years:

- **The PV of external public debt in terms of GDP** is projected at about 67 percent in 2017 (Baseline Scenario, Table 1), compared to 38.4 percent in the previous Article IV DSA and a threshold of 40 percent. It would remain above the threshold until 2026, when under baseline assumptions real GDP would jump by more than 75 percent from 2023 to 2025 taken together due to the LNG projects production. If the LNG projects were to be delayed, this indicator could be expected to remain above the prudent threshold until LNG investment commences.

- **The PV of debt in terms of exports** in 2016 has also increased considerably relative to the previous Article IV DSA (238 percent versus 129 percent), with declines in exports driving part of the increase. With exports recovering in 2017, as the completion of the Nacala rail corridor underpins coal exports, this indicator is projected to fall to about 176.7 percent in 2017, and deteriorate over the medium term with a peak at about 248.4 percent in 2022, as coal exports stabilize and non-megaproject exports are expected to remain subdued over the medium term. With the LNG projects

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[11] As in the previous DSAs, the historical scenario has been excluded from DSA Figure 1 for both the baseline and alternative scenarios. The reason for the exclusion is that such a scenario shows unrealistically fast declines of public debt ratios over the medium term, because it fixes the non-interest current account deficit at a historical average which is much lower than projected deficits driven by the LNG investments. With private debt accumulation assumed to remain unchanged compared to the baseline, this assumption then results in unrealistically fast declines of public debt ratios.

coming into production, the indicator is expected to fall below its 150 percent threshold by 2024. Risks from possible renewed commodity price shocks, particularly with regards to coal, would weaken further the indicator over the medium term.

- **The PV of debt in terms of revenues** in 2016 increased to about 330 percent (versus 147 percent in the previous Article IV DSA), and is expected to fall to 265 percent in 2017. However, it is projected to deteriorate and stay at elevated levels above the prudent threshold for almost eight years. Apart from the shocks to nominal debt levels and the exchange rate, also declines in fiscal revenue are taking a toll. It is projected to decline below its 250 percent prudent threshold by 2024.

- **External public debt service in terms of revenues** deteriorated dramatically to about 27 percent of revenues in 2017 from 12½ percent in the previous Article IV DSA. Here the steep payments on the MAM, and Proindicus loans play a significant role, as well as the Ematum refinancing. This indicator would peak at the time of the Mozam Eurobond redemption at 44 percent, and only consistently fall below its 20 percent threshold in 2026, when the Mozam bond should be amortized and LNG production is largely on stream. After 2026, it would be in the 8-9 percent of revenue range.

- **External public debt service in terms of exports** is projected to stay slightly below threshold in the near-term and have a 1-single breach of the threshold in the medium term, at the time of the Mozam Eurobond redemption reaching 26.4 percent (or 6.4 percentage points above the 20 percent threshold).

9. In the long term, external debt remains mainly driven by assumptions on the LNG projects. External debt is now expected to peak in 2023 at 370.8 percent of GDP (compared to 232 percent of GDP in the previous November Article IV DSA update). The heightening of the peak is driven by the metical depreciation lowering the dollar value of Mozambique's GDP, while the nominal amount of LNG investment stays the same. The changes in public debt are also driven by the external arrears on PPG debt, which are assumed to still accumulate until that time. The ENH borrowing from external partners increases public debt by about 20 percentage points at the peak in 2023 (see Text Table 4).

Text Table 4. Mozambique: External PPG

(Millions of U.S. dollars)

	2016	2017	2018	2019	2020	2021	2022	2023
External PPG	103.7	85.2	95.3	101.3	106.0	110.6	114.3	107.4
External PPG, without ENH	103.7	80.0	79.7	81.4	83.0	84.8	88.5	86.2

Sources: Mozambique authorities; and IMF staff estimates and projections.

10. Compared to public debt, the risks emanating from private external debt seem much more benign. Although private external debt is expected to stand at 57.5 percent of GDP at end 2017 (versus the 43 percent in the previous Article IV DSA update), resulting vulnerabilities are

relatively low as much of such debt is owed by megaprojects, which receive their revenues in foreign currency and are, therefore, much less affected by metical depreciation than by commodity prices. In addition, many debts are owed to parent companies, attenuating risks further. Direct depreciation impacts on bank profits should be contained given the regulation on banks' net open positions (limited to less than 20 percent), although significant impact could result through higher NPLs. By 2022, private external debt is expected to quadruple relative to GDP driven by the large LNG investments. However, it would be expected to be reduced again equally rapidly until the late 2020s as initial LNG revenues are devoted to amortizations.

11. External debt and debt service ratios seem most sensitive to exchange rate shocks. The stress tests illustrate that a 30 percent further nominal depreciation of the metical in 2018 relative to projections would increase the PV of external public debt to GDP ratio by another 40 percentage points (to 105 percent) in that year relative to 2017. As a response to such a 30 percent FX shock external debt service relative to government revenue would increase to 40 percent in 2018 (from 29 percent in absence of such a shock). In comparison to exchange rate depreciation, other stress tests are more benign although their standard versions in some cases do not capture the risks well at the current juncture. For instance, the standard stress test for GDP growth assumes it to be one standard deviation below historical averages. However, growth during the next years is already projected well below historical averages.[12] If instead a shock to growth relative to the baseline of four standard deviations is modeled,[13] the impact is more modest.

PUBLIC SECTOR DEBT SUSTAINABILITY

12. Total public debt levels have increased in line with external debt, but also due to a significant increase in domestic debt (Table 3 and Figure 2). External public debt is expected to stay slightly below 80 percent of total public debt, as domestic debt is expected to increase to about 26 percent of GDP in 2017 and 2018 (of which, about 60 percent in government securities, while the rest is SOEs domestic debt). Nominal public debt stood at 128.3 percent of GDP at end 2016 (of which 10 percent of GDP in SOEs domestic debt, not previously included in the debt projections due to data availability) (compared to 73 percent of GDP in the previous Article IV DSA). The current DSA update includes in the coverage of public debt a selected number of SOEs for which data was available.[14] In the case of Mozambique, staff has assessed strong macro-financial linkages between the government on the one hand and SOEs, banks, on the other. Given the identified vulnerabilities in the SOEs sector, their indebtedness towards both external creditors and domestic banks has been

[12] Similarly, while Table 2 identifies shocks to non-debt creating external inflows (such as FDI) to have a higher impact, these figures cannot be taken at face value. This stress test assumes that imports would remain constant, even if FDI were to underperform. In the case of Mozambique, however, FDI flows are mainly driven by LNG investment over the medium term and most of them go toward imports. Thus, if these flows were to be lower, imports would also be lower by the same proportion, and there would not be the large impact on debt displayed in Table 2.

[13] In this stress test, real GDP growth is 2.3 percent in 2018 and 2019 (versus a baseline of 3 percent and 2.5 percent, respectively).

[14] The criteria for inclusion of SOEs in the DSA is defined in the Joint Bank-IMF Guidance Note on Low Income Countries Debt Sustainability Framework.

included in the current DSA update. The present value of total public debt at the 5 percent DSA discount rate would be 104 percent of GDP (more than double of the value projected in the previous Article IV DSA), with increasing domestic debt playing an important role. The PV of debt surpasses the 56 percent of GDP prudent benchmark in the near and medium term until 2025.

13. Public debt servicing is expected to continue to be an enormous challenge, with both external and domestic arrears accumulating over the projection period. Rollover of domestic debt instruments needs to be ensured. Total public debt service is projected to consume over 50 percent of public revenue in 2018, 2019 and 2020. As this figure includes the rollover of domestic treasury bills and bonds, it provides a notion of the importance of reassuring holders of these instruments through determined policy action. Under the baseline, domestic arrears to suppliers are expected to accumulate reaching about 20 percent of GDP by 2023.

CONCLUSION

14. Ensuring that LNG production materializes is crucial to underpin Mozambique's long-run debt sustainability. LNG-driven increases to GDP and revenues holds the potential to eventually return debt ratios to prudent levels, aside from providing resources to foster Mozambique's development. But the ongoing challenges with regards to public debt may negatively affect the implementation of LNG prospects. Therefore, re-establishing macroeconomic stability and improving the outlook for debt, including through the careful management of relations with creditors, will support LNG developments and future growth prospects.

15. Restoring macroeconomic stability is paramount. While it will be essential to re-instill confidence and to support the economy at a critical juncture, it will also be important for returning debt to sustainability. The reason is that Mozambique's debt sustainability could be further undermined in response to moderate shocks. Stress tests highlight that Mozambique's debt and its debt service capacity would be adversely affected by higher metical depreciation than is envisaged in the present projections. It is important for the authorities to ambitiously implement fiscal consolidation both to address the economy's external imbalance and to place public debt on a sustained downward trajectory. Moreover, it would help contain downside risks to the financing plans, notably in relation to the still-to-be-contracted concessional official financing.

16. Extreme caution is warranted regarding the contracting of new debt going forward. On external loans, non-concessional terms need to be avoided and the contraction of new loans needs to be strictly limited in line with expectations on the LNG revenues coming on stream. The focus should be on the most urgent projects with high development impacts including maintenance projects to safeguard productive capacity. It is important thus to continue to improve project selection and efficiency of public investment spending by developing a better prioritization of projects and their financing. An increase in the efficiency of the investment process in general would be crucial. In the near-term, this will also imply that some loans for projects for which financing has already been approved and secured may need to be postponed or cancelled if loans for higher-priority projects are to be contracted.

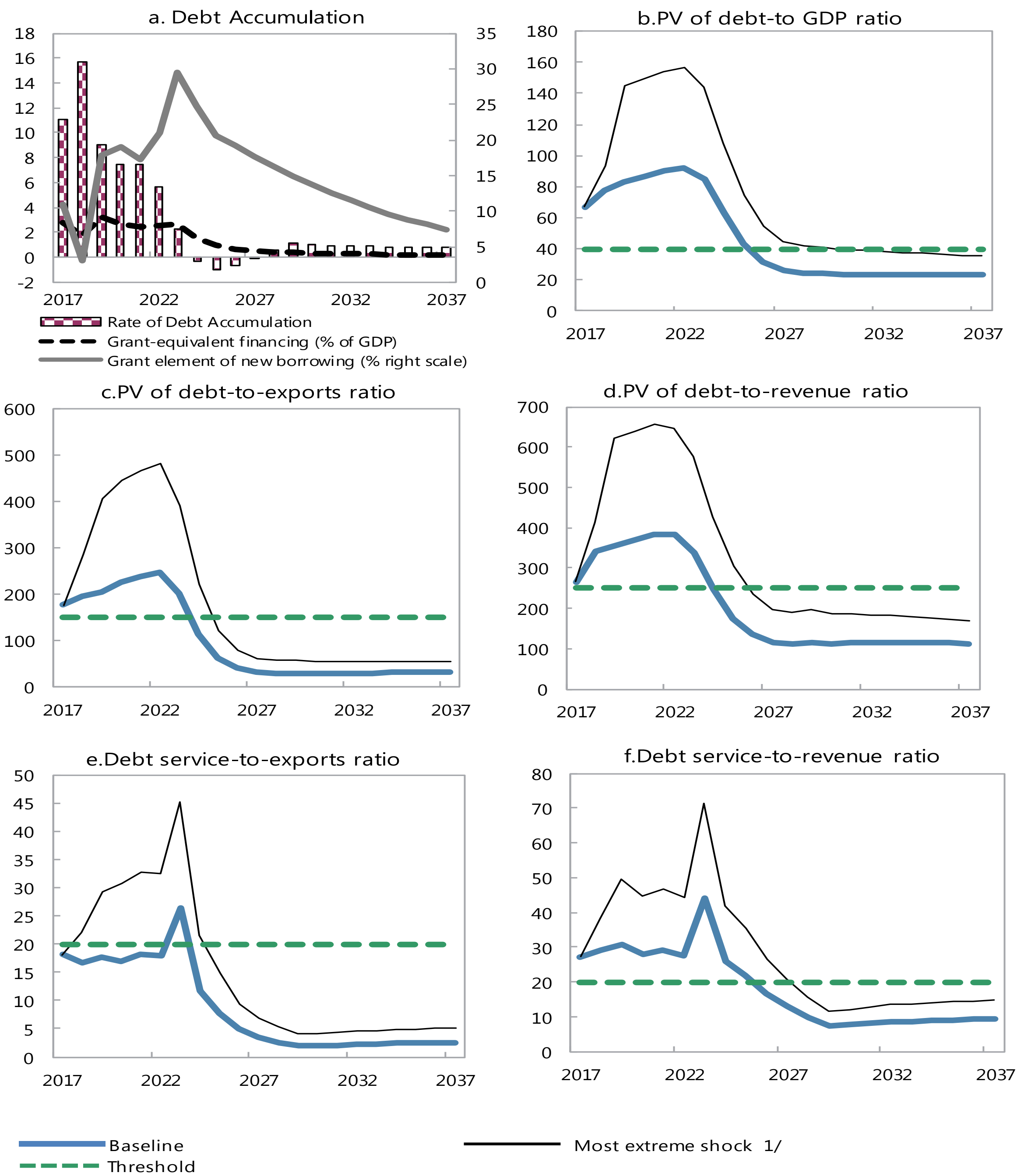
17. Debt management and oversight need to be improved. The debt unit needs to be strengthened (with respect to capacity and clout) to exercise effective oversight over the entire public debt portfolio and to implement strong safeguards. The oversight over SOEs needs to be substantially strengthened.[15]

AUTHORITIES VIEW

18. The authorities concurred with staff's assessment regarding the revision in the external debt risk rating, and the debt sustainability assessment. The authorities recognized the need for reducing financing needs as well as reaching a balanced primary deficit over the medium term. However, they had reservations on the pace of fiscal adjustment recommended by the staff, as well as on the medium-term growth projections under the baseline, which the authorities considered too conservative. To restore debt sustainability, the authorities intend to implement the fiscal measures envisaged in the 2018 Budget and actively resume discussions for the restructuring of external public debt owed to private creditors, initiated in October 2016, as well as bilaterally, the discussions with six official creditors (Libya, Iraq, Angola, Bulgaria and Poland, as well as Brazil).

[15] Please also see the Information Annex, attached to the Article IV Staff Report.

Figure 1. Mozambique: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2017-37[1]



Sources: Mozambique authorities; and IMF 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 an Export shock; in d. to a Combination shock; in e. to an Export shock and in figure f. to a GDP deflator shock.

Table 1. Mozambique: External Debt Sustainability Framework, Baseline Scenario, 2014-2037[1]

(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average 6/	Standard Deviation 6/	Projections									
	2014	2015	2016			2017	2018	2019	2020	2021	2022	2017-2022 Average	2027	2037	2023-2037 Average
External debt (nominal) 1/	**93.6**	**124.9**	**167.3**			**142.8**	**148.5**	**156.8**	**165.9**	**178.8**	**278.3**		**136.8**	**37.6**	
of which: public and publicly guaranteed (PPG)	55.8	76.4	103.7			85.2	95.3	101.3	106.0	110.6	114.3		33.1	28.2	
Change in external debt	10.7	31.3	42.4			-24.5	5.7	8.3	9.1	12.9	99.5		-41.7	-0.6	
Identified net debt-creating flows	4.9	27.4	51.2			0.0	0.7	6.6	9.7	12.5	92.9		-54.5	-37.4	
Non-interest current account deficit	**37.3**	**38.7**	**35.9**	**25.8**	**15.5**	**11.1**	**13.1**	**39.0**	**60.3**	**85.7**	**105.8**		**-33.2**	**-37.0**	-17.7
Deficit in balance of goods and services	45.1	43.7	37.7			16.3	14.3	40.4	61.6	84.9	110.4		-51.4	-54.1	
Exports	27.5	27.9	33.4			38.0	40.0	40.6	38.4	37.8	37.2		82.0	74.4	
Imports	72.6	71.7	71.1			54.3	54.4	81.0	100.1	122.7	147.6		30.6	20.4	
Net current transfers (negative = inflow)	-8.1	-5.4	-2.0	-6.6	1.9	-5.6	-1.3	-1.2	-1.2	-1.1	-1.1		-4.5	0.1	-0.4
of which: official	-6.4	-3.6	-0.7			-2.8	-0.1	-0.1	-0.1	-0.1	-0.1		0.0	0.0	
Other current account flows (negative = net inflow)	0.3	0.4	0.2			0.4	0.0	-0.2	-0.1	1.9	-3.6		22.7	16.9	
Net FDI (negative = inflow)	**-29.1**	**-26.1**	**-27.4**	**-21.6**	**12.9**	**-12.1**	**-12.4**	**-34.5**	**-53.4**	**-75.0**	**-19.8**		**0.6**	**-0.8**	-0.7
Endogenous debt dynamics 2/	**-3.4**	**14.8**	**42.8**			**1.0**	**0.0**	**2.1**	**2.8**	**1.8**	**7.0**		**-21.9**	**0.4**	
Denominator: 1+g+r+gr	1.1	0.9	0.8			1.1	1.1	1.0	1.0	1.0	1.0		1.2	1.0	
Contribution from nominal interest rate	0.9	1.7	3.7			5.4	3.7	5.6	6.4	5.4	10.7		6.4	1.1	
Contribution from real GDP growth	-5.9	-7.0	-6.2			-4.4	-3.7	-3.5	-3.6	-3.6	-3.8		-28.3	-0.7	
Contribution from price and exchange rate changes	1.6	20.2	45.3			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**5.8**	**3.9**	**-8.8**			**-24.5**	**5.0**	**1.7**	**-0.6**	**0.4**	**6.5**		**12.8**	**36.8**	
of which: exceptional financing	0.0	0.0	-1.6			-4.1	-3.3	-3.0	-1.9	-1.7	-0.9		0.0	0.0	
PV of external debt 4/	...	...	143.1			124.6	131.0	138.3	146.5	158.6	256.3		129.5	32.9	
In percent of exports	...	...	428.0			328.3	327.3	340.6	381.4	419.8	689.1		157.9	44.2	
PV of PPG external debt	**...**	**...**	**79.5**			**67.1**	**77.8**	**82.8**	**86.6**	**90.3**	**92.4**		**25.8**	**23.5**	
In percent of exports	**...**	**...**	**237.7**			**176.7**	**194.4**	**204.0**	**225.4**	**239.1**	**248.4**		**31.4**	**31.6**	
In percent of government revenues	**...**	**...**	**330.8**			**265.6**	**341.6**	**356.7**	**370.5**	**384.4**	**382.0**		**114.2**	**112.9**	
Debt service-to-exports ratio (in percent)	**14.7**	**17.8**	**27.2**			**29.3**	**24.1**	**28.4**	**29.9**	**28.2**	**42.0**		**23.4**	**3.6**	
PPG debt service-to-exports ratio (in percent)	**4.0**	**8.3**	**16.65**			**18.2**	**16.6**	**17.6**	**16.9**	**18.1**	**17.9**		**3.6**	**2.6**	
PPG debt service-to-revenue ratio (in percent)	**4.0**	**9.3**	**23.18**			**27.3**	**29.1**	**30.7**	**27.7**	**29.1**	**27.5**		**12.9**	**9.3**	
Total gross financing need (Billions of U.S. dollars)	2.1	2.6	2.0			1.3	1.5	2.4	2.9	3.5	17.3		-8.1	-33.4	
Non-interest current account deficit that stabilizes debt ratio	26.6	7.4	-6.5			35.7	7.3	30.7	51.2	72.8	6.3		8.5	-36.4	
Key macroeconomic assumptions															
Real GDP growth (in percent)	7.4	6.6	3.8	6.7	1.1	3.0	3.0	2.5	2.4	2.3	2.2	2.5	19.2	1.9	10.7
GDP deflator in US dollar terms (change in percent)	-1.9	-17.7	-26.6	-2.4	14.2	9.3	9.7	2.3	2.1	2.0	1.9	4.6	2.0	2.0	2.0
Effective interest rate (percent) 5/	1.1	1.6	2.2	1.7	0.8	3.6	3.0	4.0	4.2	3.4	6.2	4.1	4.3	3.1	5.3
Growth of exports of G&S (US dollar terms, in percent)	-2.7	-10.9	-8.9	4.0	14.4	27.7	19.1	6.4	-1.1	2.6	2.5	9.5	27.6	2.7	19.9
Growth of imports of G&S (US dollar terms, in percent)	-5.8	-13.4	-24.4	12.2	29.9	-14.1	13.1	56.3	29.1	27.9	25.3	22.9	-5.2	2.7	-1.6
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	11.0	3.0	17.9	18.9	17.3	21.0	14.9	17.7	7.4	15.0
Government revenues (excluding grants, in percent of GDP)	27.5	25.0	24.0			25.3	22.8	23.2	23.4	23.5	24.2		22.6	20.9	22.0
Aid flows (in Billions of US dollars) 7/	1.4	1.3	0.7			0.5	0.5	0.8	0.6	0.6	0.6		0.5	0.2	
of which: Grants	0.7	0.4	0.2			0.2	0.2	0.2	0.1	0.1	0.1		0.1	0.0	
of which: Concessional loans	0.7	0.8	0.4			0.3	0.3	0.6	0.5	0.5	0.5		0.4	0.2	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			2.7	1.8	3.2	2.7	2.5	2.6		0.5	0.2	0.6
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			22.5	10.9	25.3	24.2	22.0	25.4		21.6	9.0	18.2
Memorandum items:															
Nominal GDP (Billions of US dollars)	16.9	14.8	11.3			12.7	14.3	15.0	15.7	16.4	17.1		60.1	95.1	
Nominal dollar GDP growth	5.4	-12.3	-23.8			12.5	12.9	4.9	4.5	4.3	4.1	7.2	21.6	3.9	12.9
PV of PPG external debt (in Billions of US dollars)			7.7			9.0	11.0	12.2	13.4	14.5	15.5		15.2	22.0	
(PVt-PVt-1)/GDPt-1 (in percent)						**11.1**	**15.7**	**9.0**	**7.4**	**7.5**	**5.7**	**9.4**	-0.1	0.8	0.6
Gross workers' remittances (Billions of US dollars)	0.0	0.0	0.0			0.2	0.0	0.0	0.0	0.0	0.0		2.5	-0.3	
PV of PPG external debt (in percent of GDP + remittances)	...	...	79.7			66.1	77.9	82.9	86.7	90.4	92.5		24.8	23.6	
PV of PPG external debt (in percent of exports + remittances)	...	...	239.4			170.2	194.9	204.5	225.9	239.7	249.0		29.9	31.8	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	16.8			17.5	16.6	17.6	16.9	18.1	17.9		3.4	2.6	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

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

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

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

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

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

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

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

Table 2. Mozambique: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2017-2037

(In Percent)

	Projections							
	2017	2018	2019	2020	2021	2022	**2027**	2037
PV of debt-to GDP ratio								
Baseline	67	77.8	82.9	87	90.3	92	**26**	24
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	67	86	91	92	89	5	**-75**	606
A2. New public sector loans on less favorable terms in 2017-2037 2	67	80	89	97	105	110	**35**	39
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	67	77.1	82.2	85.7	89.4	91	**25**	23
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	67	86	105	108	112	114	**32**	26
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	67	101	131	137	143	146	**40**	37
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	67	77	103	106	110	112	**32**	26
B5. Combination of B1-B4 using one-half standard deviation shocks	67	94	145	149	154	157	**45**	35
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	67	105	112	117	122	125	**35**	31
PV of debt-to-exports ratio								
Baseline	177	194	204	225	239	248	**31**	32
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	177	216	225	241	236	14	**-91**	814
A2. New public sector loans on less favorable terms in 2017-2037 2	177	199	219	252	277	295	**43**	53
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	177	191	201	222	235	243	**31**	31
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	177	285	406	444	467	483	**62**	55
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	177	191	201	222	235	243	**31**	31
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	177	192	253	276	291	301	**39**	35
B5. Combination of B1-B4 using one-half standard deviation shocks	177	245	376	410	430	444	**57**	50
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	177	191	201	222	235	243	**31**	31
PV of debt-to-revenue ratio								
Baseline	266	342	357	371	384	382	**114**	113
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	266	380	394	395	380	21	**-331**	2904
A2. New public sector loans on less favorable terms in 2017-2037 2	266	349	384	415	446	454	**156**	188
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	266	338	354	367	380	377	**112**	110
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	266	377	450	463	476	470	**142**	125
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	266	442	566	587	608	603	**179**	176
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	266	338	442	455	468	462	**140**	125
B5. Combination of B1-B4 using one-half standard deviation shocks	266	412	623	639	656	648	**198**	169
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	266	463	484	501	520	515	**153**	150

Table 2. Mozambique: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2017-2037 (concluded)

(In percent)

	2017	2018	2019	2020	2021	2022	**2027**	2037
Debt service-to-exports ratio								
Baseline	18	17	18	17	18	18	**4**	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	18	18	19	19	20	18	**-1**	44
A2. New public sector loans on less favorable terms in 2017-2037 2	18	17	17	21	22	21	**4**	4
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	18	17	18	17	18	18	**4**	3
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	18	22	29	31	33	33	**7**	5
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	18	17	18	17	18	18	**4**	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	18	17	18	19	21	20	**4**	3
B5. Combination of B1-B4 using one-half standard deviation shocks	18	20	24	28	29	29	**6**	5
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	18	17	18	17	18	18	**4**	3
Debt service-to-revenue ratio								
Baseline	27	29	31	28	29.1	28	**13**	9
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	27	32	34	31	31	28	**-3**	158
A2. New public sector loans on less favorable terms in 2017-2037 2	27	29	29	34	36	32	**13**	15
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	27	29	31	28	29	28	**13**	9
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	27	29	32	32	33	32	**16**	12
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	27	38	50	45	47	44	**21**	15
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	27	29	31	32	33	31	**16**	11
B5. Combination of B1-B4 using one-half standard deviation shocks	27	34	40	43	45	43	**22**	16
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	27	40	42	38	40	38	**18**	13
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	7	7	7	7	7	7	**7**	7

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.

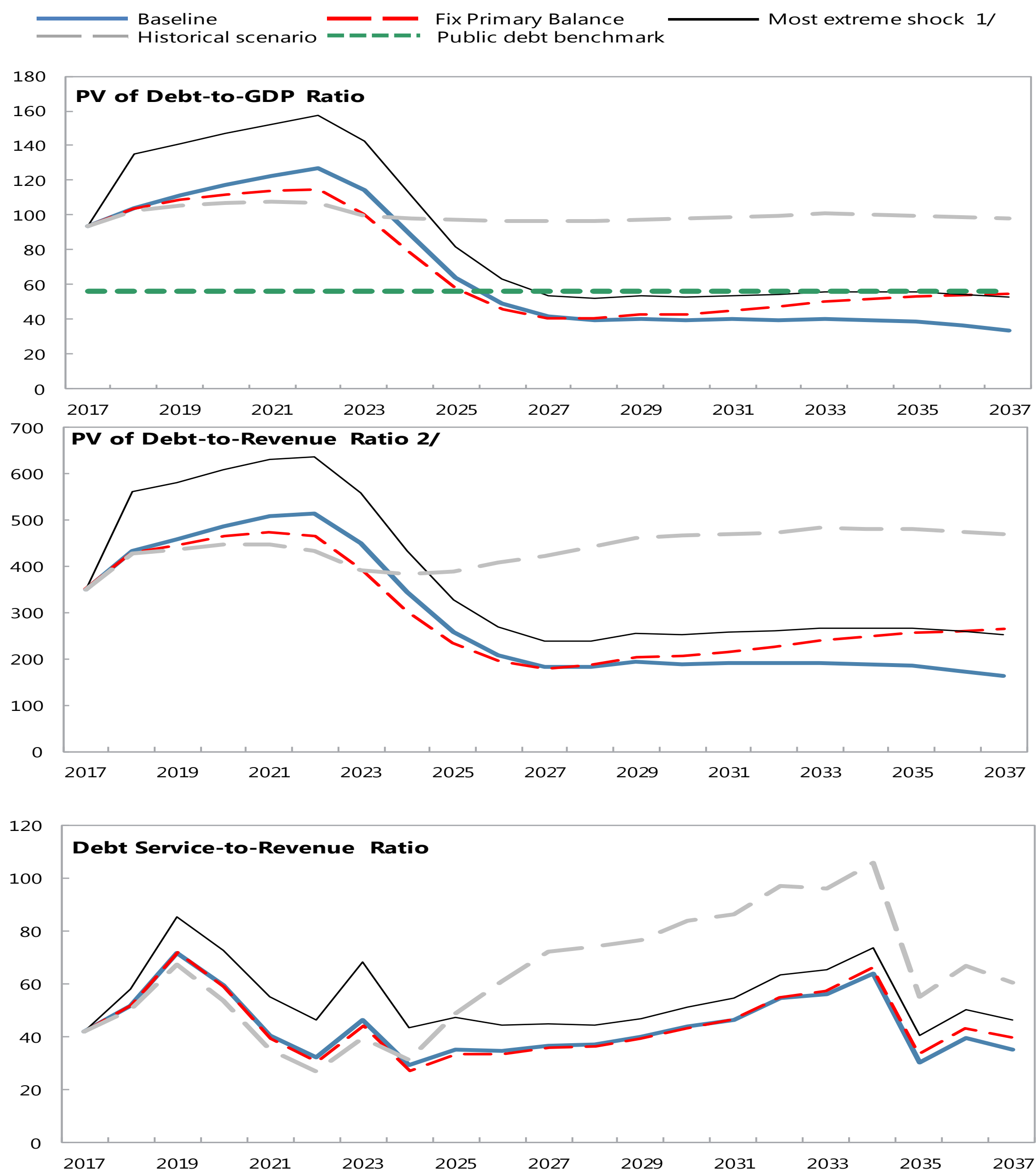
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly a an offsetting adjustment in import levels).

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. Mozambique: Indicators of Public Debt Under Alternative Scenarios, 2017-2037[1]



Sources: Mozambique authorities; and IMF 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 3. Mozambique: Public Sector Debt Sustainability Framework, Baseline Scenario, 2014-2037

(In percent of GDP, unless otherwise indicated)

	Actual			Average 5/	Standard Deviation 5/	Estimate	Projections								
	2014	2015	2016			2017	2018	2019	2020	2021	2022	2017-22 Average	2027	2037	2023-37 Average
Public sector debt 1/	62.4	88.1	128.3			112.0	121.8	130.1	136.7	143.0	149.3		48.7	38.7	
of which: foreign-currency denominated	55.8	76.4	103.7			85.2	95.3	101.3	106.0	110.6	114.3		33.1	28.2	
		0.9	0.8			0.8	0.8	0.8	0.8	0.8	0.8				
Change in public sector debt	9.2	25.7	40.2			-16.4	9.9	8.3	6.6	6.3	6.2		-9.2	-2.5	
Identified debt-creating flows	11.1	19.9	32.0			-26.3	1.2	4.4	3.6	3.1	3.4		-9.9	-2.3	
Primary deficit	10.0	6.3	5.0	4.5	2.3	1.7	2.7	4.1	4.3	5.1	5.6	3.9	-0.5	-1.7	0.0
Revenue and grants	31.8	28.1	26.1			26.8	24.1	24.4	24.1	24.1	24.7		22.7	20.9	
of which: grants	4.3	3.0	2.1			1.6	1.3	1.2	0.7	0.6	0.6		0.1	0.0	
Primary (noninterest) expenditure	41.8	34.4	31.2			28.6	26.8	28.5	28.4	29.2	30.3		22.2	19.2	
Automatic debt dynamics	1.1	13.6	26.9			-28.0	-1.5	0.3	-0.7	-2.0	-2.2		-9.4	-0.6	
Contribution from interest rate/growth differential	-3.6	-3.3	-2.5			-3.6	-1.5	0.3	-0.7	-2.0	-2.4		-9.4	-0.6	
of which: contribution from average real interest rate	0.1	0.5	0.7			0.1	1.7	3.3	2.3	1.0	0.7		0.0	0.1	
of which: contribution from real GDP growth	-3.7	-3.9	-3.2			-3.7	-3.2	-3.0	-3.0	-3.0	-3.1		-9.4	-0.8	
Contribution from real exchange rate depreciation	4.7	17.0	29.4			-24.5	0.0	0.0	0.0	0.0	0.2		...	...	
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	-1.9	5.8	8.2			10.0	8.6	3.8	3.0	3.3	2.9		0.7	-0.2	
Other Sustainability Indicators															
PV of public sector debt	...	...	104.1			93.8	104.3	111.6	117.3	122.8	127.3		41.4	34.0	
of which: foreign-currency denominated	...	...	79.5			67.1	77.8	82.8	86.6	90.3	92.4		25.8	23.5	
of which: external	...	...	79.5			67.1	77.8	82.8	86.6	90.3	92.4		25.8	23.5	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	11.7	9.3	11.9			13.0	15.2	21.6	18.6	14.8	13.5		7.7	5.6	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	398.6			349.7	433.3	457.8	487.1	508.8	514.3		182.5	162.7	
PV of public sector debt-to-revenue ratio (in percent)	...	...	433.4			371.5	458.1	480.6	501.9	522.6	526.4		183.4	162.9	
of which: external 3/	...	...	330.8			265.6	341.6	356.7	370.5	384.4	382.0		114.2	112.9	
Debt service-to-revenue and grants ratio (in percent) 4/	5.1	10.5	26.4			42.0	51.7	71.7	59.4	40.5	32.0		36.4	35.1	
Debt service-to-revenue ratio (in percent) 4/	5.9	11.8	28.8			44.6	54.7	75.3	61.2	41.6	32.7		36.6	35.2	
Primary deficit that stabilizes the debt-to-GDP ratio	0.8	-19.4	-35.2			18.1	-7.2	-4.1	-2.3	-1.3	-0.7		8.7	0.8	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	7.4	6.6	3.8	6.7	1.1	3.0	3.0	2.5	2.4	2.3	2.2	2.5	19.2	1.9	10.7
Average nominal interest rate on forex debt (in percent)	1.1	1.4	2.4	1.2	0.7	3.4	3.3	3.4	3.3	3.3	3.2	3.3	2.1	3.0	2.5
Average real interest rate on domestic debt (in percent)	6.7	6.1	-1.0	5.5	3.3	-6.3	3.3	9.3	3.8	-0.9	-2.0	1.2	-0.3	-0.8	-0.2
Real exchange rate depreciation (in percent, + indicates depreciation)	10.8	32.3	39.5	7.6	17.8	-23.9	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	2.6	4.4	12.3	5.8	3.4	13.1	5.9	5.8	5.6	5.6	5.6	6.9	5.5	5.5	5.5
Growth of real primary spending (deflated by GDP deflator, in percent)	34.7	-12.4	-5.9	1.7	12.3	-5.6	-3.5	9.1	1.9	5.2	6.2	2.2	11.2	1.6	7.1
Grant element of new external borrowing (in percent)	...	...	...	...	...	11.0	3.0	17.9	18.9	17.3	21.0	14.9	17.7	7.4	...

Sources: Country authorities; and staff estimates and projections.

1/Gross debt concept is used. Coverage of public sector is general government (central government plus selected SOEs according to the Joint Bank-IMF Guidance Note on LIC DSF for which data was available).

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. Mozambique: Sensitivity Analysis for Key Indicators of Public Debt, 2017-2037

	Projections							
	2017	2018	2019	2020	2021	2022	2027	2037
PV of Debt-to-GDP Ratio								
Baseline	94	104	112	117	123	127	41	34
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	94	102	106	107	108	107	96	98
A2. Primary balance is unchanged from 2017	94	103	109	112	114	115	41	55
A3. Permanently lower GDP growth 1/	94	105	112	118	124	130	44	44
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	94	101	104	108	112	115	33	16
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	94	108	118	124	129	134	44	36
B3. Combination of B1-B2 using one half standard deviation shocks	94	104	109	113	117	120	34	15
B4. One-time 30 percent real depreciation in 2018	94	135	141	147	152	157	54	53
B5. 10 percent of GDP increase in other debt-creating flows in 2018	94	114	121	127	132	137	45	37
PV of Debt-to-Revenue Ratio 2/								
Baseline	350	433	458	487	509	514	182	163
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	350	426	436	447	448	433	423	469
A2. Primary balance is unchanged from 2017	350	430	445	464	473	465	179	264
A3. Permanently lower GDP growth 1/	350	434	460	492	515	523	194	211
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	350	421	428	450	466	466	147	75
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	350	449	483	513	535	540	192	173
B3. Combination of B1-B2 using one half standard deviation shocks	350	433	448	470	484	484	150	70
B4. One-time 30 percent real depreciation in 2018	350	560	580	610	632	635	237	252
B5. 10 percent of GDP increase in other debt-creating flows in 2018	350	472	496	526	548	552	197	178
Debt Service-to-Revenue Ratio 2/								
Baseline	42	52	72	59	40	32	36	35
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	42	50	67	54	35	27	72	60
A2. Primary balance is unchanged from 2017	42	52	72	59	39	30	36	40
A3. Permanently lower GDP growth 1/	42	52	72	60	41	32	37	39
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	42	51	68	56	38	30	33	28
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	42	52	72	61	42	33	37	36
B3. Combination of B1-B2 using one half standard deviation shocks	42	50	68	57	39	30	34	28
B4. One-time 30 percent real depreciation in 2018	42	58	85	72	55	46	45	46
B5. 10 percent of GDP increase in other debt-creating flows in 2018	42	52	74	61	42	34	38	37

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.