EXECUTIVE BOARD MEETING

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Supplement 1

April 16, 2020

To: Members of the Executive Board

From: The Secretary

Subject: **Maldives—Request for Disbursement Under the Rapid Credit Facility—Debt Sustainability Analysis**

Board Action:	Executive Directors' **consideration** (Formal)
Tentative Board Date:	**Wednesday, April 22, 2020**
Publication:	Yes*
Questions:	Mr. Cerutti, APD (ext. 36811) Mr. Jonas, APD (ext. 38674)
Document Transmittal in the Absence of an Objection and in accordance with Board policy:	After Board Consideration—Asian Development Bank, Asian Infrastructure Investment Bank, World Trade Organization

***The Secretary's Department has been notified by the authorities that their explicit consent is required prior to the publication of Board documents. At the time of circulation of this paper to the Board, the authorities have indicated that they consent to the Fund's publication of this paper.**

INTERNATIONAL MONETARY FUND

MALDIVES

REQUEST FOR DISBURSEMENT UNDER THE RAPID CREDIT FACILITY—DEBT SUSTAINABILITY ANALYSIS

April 16, 2020

Approved By
Ranil Salgado and Marcello Estevão (IDA)

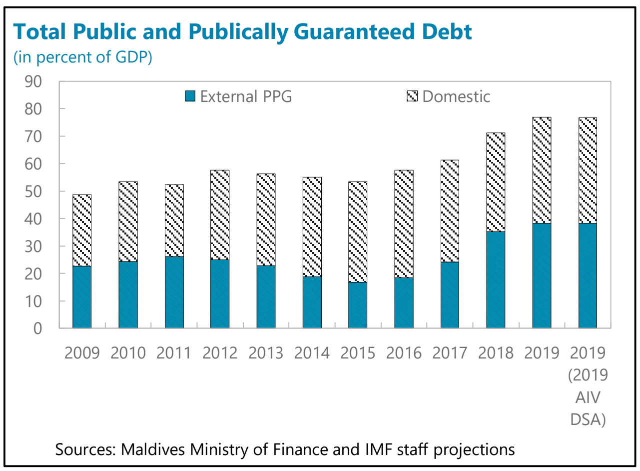
Prepared by the staffs of the International Monetary Fund and the International Development Association.

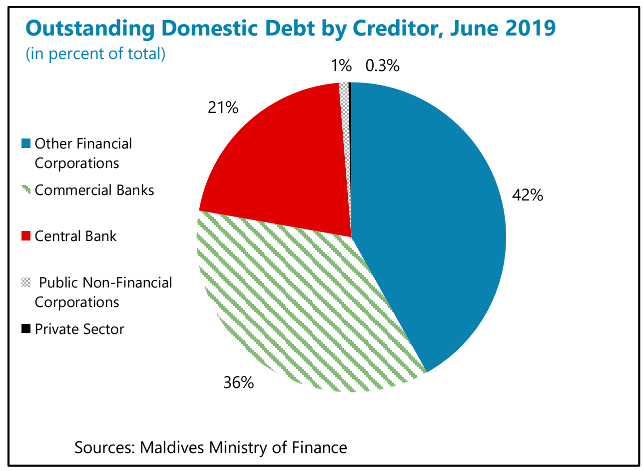
Maldives **Joint Bank-Fund Debt Sustainability Analysis**	
Risk of external debt distress:	High
Overall risk of debt distress:	High
Granularity in the risk rating:	Sustainable
Application of judgement:	No

The Maldives continues to be at high risk of debt distress. As in the 2019 Article IV DSA published on June 2019, all indicators except the debt-to-exports ratio breach their respective thresholds under the baseline scenario but they display medium-term downward trends. In response to the shock to the economy caused by the COVID-19 outbreak, the authorities have taken steps to reduce non-priority recurrent and capital spending as well as rebalance the distribution of available resources. Given the changes in domestic and global conditions, the authorities have committed to reprioritize and cut capital expenditures which are projected to decline in the next few years, helping to put debt on a decreasing path. Rollover risks from the repayment of two outstanding international sovereign bonds are mitigated both by the Sovereign Development Fund (SDF) and by the preemptive voluntary extension of a privately placed US$100 million bond due in 2023 (now due in 2026). Thus, staff judge public debt in Maldives to be sustainable. This assessment of debt sustainability is predicated on the implementation of the authorities' stated policies which are substantial and require a high level of commitment. The macroeconomic framework reflects currently available information. Updates of the economic impact and policy response to the COVID-19 crisis are rapidly evolving and risks are heavily tilted to the downside.

BACKGROUND AND DEVELOPMENTS ON DEBT

1. **Total public and publicly guaranteed (PPG) debt in Maldives stood at around US$4.4 billion in 2019, approximately 77 percent of GDP.** About 50 percent of public debt is domestic and denominated in local currency. Domestic debt is held largely by other financial corporations, including the national pension (42 percent), commercial banks (36 percent), and the central bank (21 percent).[1] The increase in public sector debt by about US$0.6 billion with respect to 2018 levels is broadly in line with the projected increase during the previous 2019 Article IV consultation. This increase in external PPG debt was mostly associated with finalizing existing public housing projects carried out by the Housing Development Corporation (HDC), a state-owned enterprise (SOE). The remainder of the increase in external debt was associated with the airport expansion project and infrastructure projects related to electricity and sanitation. These projects are needed to fill the infrastructure needs of the Maldives as the infrastructure gap remains large. For example, the expansion of the airport will increase the capacity of the Maldives to receive new tourists and meet the demand of airlines wishing to fly to Male but unable to receive a landing slot because of the airport's limited capacity. This excess demand was pre-pandemic, but it is expected to resume after conditions normalize. The airport expansion should contribute positively to GDP growth over the medium and long term.

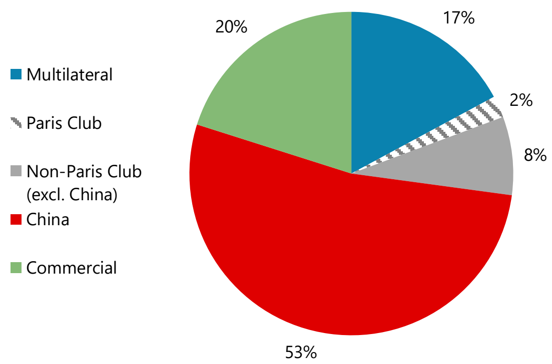




2. **External PPG debt recorded around US$2.2 billion in 2019, approximately 38 percent of GDP.** Around 53 percent of external PPG debt consists of debt held by China, followed by commercial debt that includes the only two international sovereign bonds Maldives has issued worth US$350 million in total. While bilateral debt is contracted largely on semi-concessional terms, multilateral debt is more concessional, with grants elements generally around 20 percent. The increase in external PPG debt was about US$0.3 billion from the 2018 levels, also in line with the 2019 Article IV projections. Public housing projects have been the largest factor in the increase in guaranteed external debt in recent years. The rest was mostly linked to the expansion of the airport and basic infrastructure in electricity and sanitation.

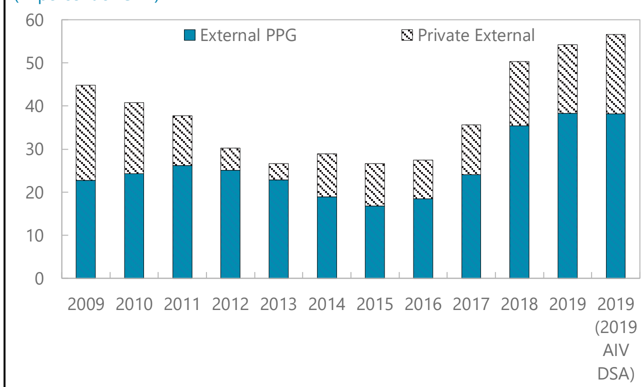
[1] This debt is a conversion of the outstanding debt held by the MMA in the Ways and Means account into a long-term treasury bond. The bond was issued in December 2014.

Outstanding External PPG Debt by Creditor, 2019
(in percent of total)



Sources: Maldives Ministry of Finance

External Debt
(in percent of GDP)



Sources: Maldives Ministry of Finance and IMF staff projections

Subsectors of the public sector	Sub-sectors covered
Central government	X
State and local government	
Other elements in the general government	
o/w: Social security fund	
o/w: Extra budgetary funds (EBFs)	
Guarantees (to other entities in the public and private sector, including to SOEs)	X
Central bank (borrowed on behalf of the government)	X
Non-guaranteed SOE debt	

The country's coverage of public debt	The central government, central bank, government-guaranteed debt			
	Default		Used for the analysis	Reasons for deviations from the default settings
Other elements of the general government not captured in 1.	0	percent of GDP	0.0	
SoE's debt (guaranteed and not guaranteed by the government) 1/	2	percent of GDP	2.0	
PPP	35	percent of PPP stock	0.0	
Financial market (the default value of 5 percent of GDP is the minimum value)	5	percent of GDP	5.0	
Total (2+3+4+5) (in percent of GDP)			7.0	

1/ The default shock of 2% of GDP will be triggered for countries whose government-guaranteed debt is not fully captured under the country's public debt definition (1.). If it is already included in the government debt (1.) and risks associated with SoE's debt not guaranteed by the government is assessed to be negligible, a country team may reduce this to 0%.

3. **This debt sustainability analysis includes PPG external and domestic debt.** Public debt includes debt of the central government, including guarantees to SOEs, and debt of the central bank. Public debt does not include the non-guaranteed debt of SOEs as some can borrow without the guarantee of the government. External debt is defined by the currency criteria though differences between currency and residency are negligible. As part of the recent government efforts to increase transparency, the information about guarantees to SOEs is now publicly disclosed on the webpage of the Ministry of Finance.

BACKGROUND ON MACRO FORECASTS

4. **The COVID-19 pandemic shock is severely affecting the outlook for 2020 compared to the last Debt Sustainability Analysis (DSA), but the medium term remains similar given the prospects of the tourism sector.**

- **Growth and inflation.** The COVID-19 shock will reverse what was expected to be a promising year for tourism with the opening of the new airport runway and several resorts. Pre-pandemic

GDP growth in 2020 was projected at 7 percent, with the pandemic causing a -15.1 percentage point shock to 2020 growth. The tourism sector directly accounts for -11.7 percentage points of that revision. The spillovers into domestic economy are projected to contribute -3.4 percentage points because of lower tourist arrivals, increased domestic precautions to contain the outbreak, and the delay of construction projects. Growth is expected to resume in 2021 driven by a rebound in tourist arrivals to 2019 levels (a potentially conservative estimate, given that capacity has increased as reflected in the 14 percent increase in arrivals in January 2020 compared to the same month in 2019). Medium-term growth projections are broadly along the lines of the last DSA. The inflation outlook in the medium term is slightly more favorable driven by the decline in oil and food prices.

- **Primary fiscal deficit.** Before the pandemic shock, the new government announced plans to increase capital expenditures with the introduction of public sector investment projects (PSIP), including moving the port and building a bridge to it. Given the extraordinary nature of the COVID-19 shock, the authorities have announced a package of fiscal measures. This includes a revision in their capital expenditure plans. Capital expenditure is expected to be reduced from an average of about 12.2 percent of GDP during 2016-19 to 7.2 percent in 2020-25. Additional measures include an 18 percent cut in non-critical recurrent expenditures from the budget. Including the increase in COVID-19 related spending, current spending is still being reduced by over 5 percent. The overall fiscal deficit widens significantly from 2019, to 11.7 percent of GDP as a result of a sharp decline in revenue, despite reductions in some non-priority current expenditure as well as large cuts in capital expenditure compared with the original budget.

- **Domestic financing.** As of June 2019, more than 55 percent of domestic financing in the Maldives was short term (maturity of less than one year). Interest rates on short-term debt have ranged between 3.7 and 4.5 percent since December 2016.[2] Over the medium term, we assume a similar share of short-term debt in domestic financing and an interest rate of 4.5 percent for short term-debt. The share of longer-term debt gradually increases over the medium term. Domestic banks and the pension fund are projected to remain the main holders of government debt.

- **Non-interest current account deficit (CAD).** The decline in tourist arrivals translates to a loss of around US$1.46 billion in tourism receipts in 2020, this along with the decline in growth explains the large non-interest CAD in 2020 relative to the previous DSA. Lower imports related to the tourism industry (both goods and services) and construction as well as lower oil prices and lower remittance outflow counterbalance the impact of lower tourism receipts. Over the medium term, the non-interest CAD is elevated relative to the previous DSA because, while import for public-related capital projects have decreased, imports related to private projects remain, interest payments are lower, and the level of GDP does not recover to pre-pandemic levels.

[2] Public Debt Bulletin, June 2019, Maldives Ministry of Finance. Previous DSAs were not calibrated with actual data, and default interest rates of around 6 percent were assumed.

Change in Macroeconomic Assumptions

	2019	2020	2021	2022	2023	2024	2025	26-38
Real GDP growth (in percent change)								
Current	5.7	-8.1	13.2	6.4	5.9	5.4	5.4	4.7
Previous	6.5	6.0	5.5	5.5	5.5	5.5	5.5	5.5
Inflation								
Current	1.3	1.5	1.5	2.0	2.0	2.0	2.0	2.0
Previous	2.0	2.4	2.5	2.5	2.3	2.0	2.0	2.0
Primary fiscal deficit (in percent of GDP)								
Current	3.9	10.1	4.4	3.1	1.9	1.4	1.1	0.4
Previous	3.0	3.2	2.6	2.2	1.8	1.4	1.4	-0.2
Non-interest current account deficit (in percent of GDP)								
Current	24.6	22.2	10.5	7.9	7.8	8.1	7.8	5.0
Previous	18.0	13.0	11.2	9.3	8.0	5.1	7.5	3.5
Grants (in percent of GDP)								
Current	1.6	2.6	1.4	1.0	0.7	0.6	0.6	0.4
Previous	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.3
Capital Expenditures (in percent of GDP)								
Current	9.5	8.0	7.0	7.0	7.0	7.0	7.0	7.0
Previous	9.5	9.6	9.0	8.6	8.3	8.1	8.1	7.8
Public Debt (in percent of GDP)								
Current	76.9	93.7	87.0	85.2	82.8	80.5	78.0	63.9
Previous	76.8	80.7	83.1	81.5	81.4	83.8	83.2	68.8

5. **Realism tools suggest that the macroeconomic projections are reasonable and consistent with historical patterns and those observed in other low-income countries (LICs).** The projected three-year change in the primary balance is around the 60th percentile of adjustments undertaken by LICs under an IMF program. Baseline growth is far below what is suggested by a multiplier approach owing to the nature of the COVID-19 shock which has severely impacted the tourism sector in 2020. Public investment is lower than what was projected in the last DSA because of the authorities' revised capital expenditure plans in response to the shock to tourism. The contribution of capital investment to growth is in line with the decline in capital spending and is proportional to historical contributions.

6. **External debt dynamics in the Maldives have been driven predominantly by the current account deficit.** Major infrastructure projects relating to housing, a hospital, a bridge, and the expansion of the new airport have taken place over the last 5 years and were financed predominantly with external debt. A large fraction of the materials and services for these projects were imported and led to an expansion of the current account deficit. Public debt dynamics have been driven by the primary deficit. The large residual is because of the activity of SOEs which is not part of the budget. As in the past DSA, debt dynamics continue to be generally favorable owing to strong growth prospects and loan terms which are usually semi-concessional.

EXTERNAL AND PUBLIC DEBT SUSTAINABILITY

7. **The debt carrying capacity of the Maldives remains weak.** The Maldives' Composite Indicator (CI) score is calculated at 2.47, and the country has 'weak debt carrying capacity'. CI is based on a weighted average of several factors such as the country's real GDP growth, remittances, international reserves, and world growth and the CPIA score, and the calculation of the CI is based on 10-year averages of the variables, across 5 years of historical data and 5 years of projection, and the corresponding CPIA.

Components	Coefficients (A)	10-year average values (B)	CI Score components (A*B) = (C)	Contribution of components
CPIA	0.385	3.170	1.22	49%
Real growth rate (in percent)	2.719	6.096	0.17	7%
Import coverage of reserves (in percent)	4.052	17.987	0.73	29%
Import coverage of reserves^2 (in percent)	-3.990	3.235	-0.13	-5%
Remittances (in percent)	2.022	0.670	0.01	1%
World economic growth (in percent)	13.520	3.499	0.47	19%
CI Score			2.47	100%
CI rating			Weak	

Final	Classification based on current vintage	Classification based on the previous vintage	Classification based on the two previous vintages
Weak	Weak	Weak	Weak
	2.47	2.52	2.48

8. **External debt sustainability.** As in the previous DSA, the PV of external PPG debt-to-GDP ratio breaches its threshold under the baseline scenario. The PV of external PPG debt-to-GDP stood at an estimated 33 percent in 2019. It is projected to increase to around 43 percent of GDP in 2020 owing both to the sharp contraction in GDP growth and to disbursements related to existing projects. Over the medium-term, the PV of external PPG debt-to-GDP ratio is projected to gradually decline to 34 percent in 2025 and to 24 percent in 2030. The PV of debt-to-exports ratio is below its threshold under the baseline and is projected to continue to decline. Debt service-to-exports breaches its threshold in 2022 when the maiden US$250 million sovereign bond is due. The repayment schedule for the second international bond (US$100 million privately placed with Abu Dhabi) was extended to 2026 from 2023. The authorities have set-up a sovereign development fund (SDF) to accumulate funds for payment and mitigate rollover risks. The SDF is financed mainly by an airport development fees and other services offered at the Velanaa international airport. As of end-2019, the SDF had accumulated over US$200million. The authorities decided to hold the SDF account in domestic currency and converted US$120 million with the Maldives Monetary Authority (MMA). The converted funds are included in domestic financing of the budget in 2020. As a result of the COVID-19 shock, further accumulation is not expected in 2020. It is expected that accumulation of foreign exchange resources during 2021 and the first-half of 2022 will be about US$168 million, bringing the balance to about US$250 at the end of June 2022. The projected accumulation from June 2022 to 2026 would approach the amount due in 2026. Hence, staff is of the view that the SDF mitigates rollover risks associated with the sovereign bonds. Staff judge external debt in the Maldives to be sustainable. The most extreme shock to external debt is the shock to exports. For debt service-to-revenue, the most extreme shock is that of a one-time depreciation.

9. Overall public debt sustainability. The PV of public debt-to-GDP ratio stood at an estimated 72 percent in 2019 and is above the indicative threshold, as in the 2019 DSA. Domestic public debt is an important source of financing in the Maldives and is projected to remain so. PV of public debt-to-GDP will reach 87.5 percent of GDP in 2020 owing to the growth shock and will gradually decline to around 63 percent of GDP by 2030. This decline in public debt mainly reflects the authorities' scaled down capital expenditure program. The most extreme shock to public debt indicators is the shock to growth. Staff recommends developing the domestic debt market by lengthening debt maturity and minimizing rollover risks from short-term debt. Currently around half of domestic debt is short term with interest rates of around 4.5 percent. The Ministry of Finance is committed to transparency and along these lines, formulates and publishes its medium-term debt strategy on its website annually and publishes a public debt bulletin annually.

10. Tailored stress tests for natural disasters, contingent liabilities, and market financing are relevant for the Maldives. The Maldives is susceptible to rising sea levels and has issued two sovereign bonds (amounting to US$350 million). Risks from the non-guaranteed SOE debt are covered by the contingent liability shock. The tailored stress tests were kept to their pre-set, default calibrations as these are appropriate for the Maldives. The tailored stress tests are not the most extreme shocks for any of the indicators. The most extreme shocks are the combination shock and the shock to exports for the PPG external debt indicators, and the shock to growth and exports for the public debt indicators.

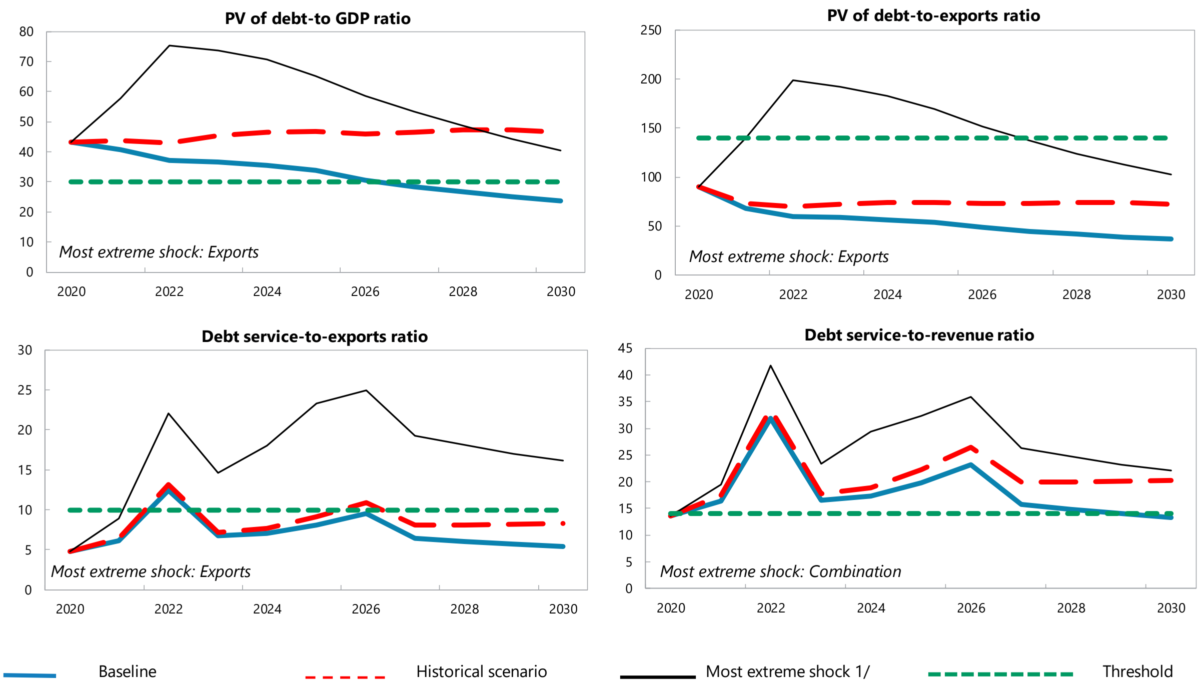
ASSESSMENT

11. The Maldives has a high risk of external debt distress and a high overall risk of debt distress. As in the previous DSA, three out of four external debt indicators breach their respective thresholds under the baseline scenario, and public debt is above its indicative threshold. Rollover risks from the repayment of two outstanding international sovereign bonds are mitigated by the SDF and the extension of the maturity of one bond. The risk of debt distress will remain high pending the sustained implementation of a more prudent expenditure policy and new revenue measures introduced in the 2020 budget including the personal income tax. These risks will be further mitigated by an effort to obtain the most concessional terms available for contracting external debt and to seek grant financing to the extent possible. The sustainability of debt is predicated on the implementation of the authorities' stated policies, which are substantial and require a high level of sustained commitment.

AUTHORITIES' VIEWS

12. The authorities recognize that the Maldives has a high level of debt and is at a high risk of debt distress. The authorities reiterated that the SDF significantly mitigates the rollover risk from their sovereign bonds coming due, and they highlighted the extension of the maturity of the US$100 million bond allows more space between repayments and further mitigation of rollover risk. The significant reduction in the capital spending plans will put debt on a declining path and reducing risks posed by high debt levels.

Figure 1. Maldives Indicators of Public and Publicly Guaranteed External Debt Under Alternatives Scenarios, 2020–2030



Customization of Default Settings		
	Size	Interactions
Tailored Stress		
Combined CL	No	
Natural disaster	No	No
Commodity price	n.a.	n.a.
Market financing	No	No

Note: "Yes" indicates any change to the size or interactions of the default settings for the stress tests. "n.a." indicates that the stress test does not apply.

Borrowing assumptions on additional financing needs resulting from the stress tests*		
	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	3.7%	3.7%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	15	15
Avg. grace period	2	2

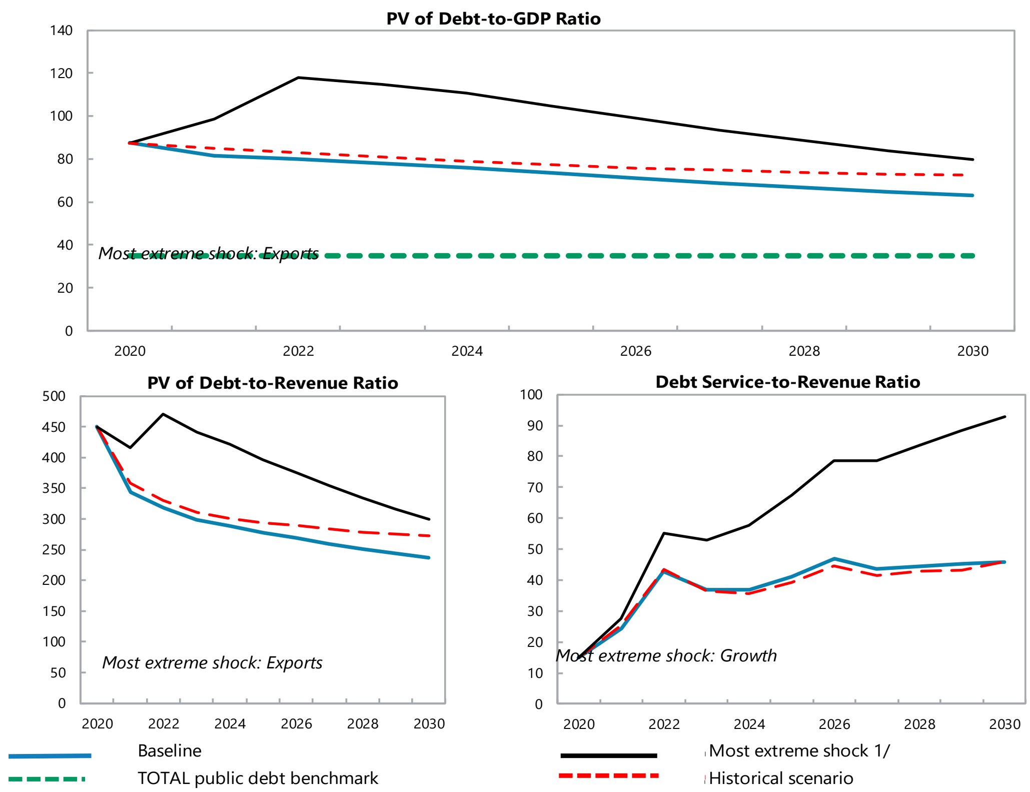
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2030. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

2/ The magnitude of shocks used for the commodity price shock stress test are based on the commodity prices outlook prepared by the IMF research department.

Figure 2. Maldives: Indicators of Public Debt Under Alternatives Scenarios, 2020–2030



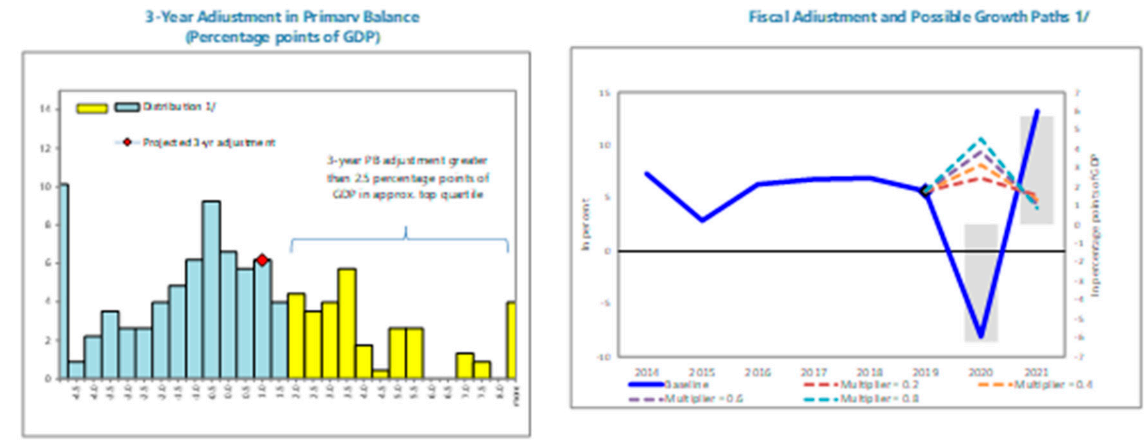
Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	36%	36%
Domestic medium and long-term	29%	29%
Domestic short-term	31%	34%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	3.7%	3.7%
Avg. maturity (incl. grace period)	15	15
Avg. grace period	2	2
Domestic MLT debt		
Avg. real interest rate on new borrowing	5.3%	5.3%
Avg. maturity (incl. grace period)	4	4
Avg. grace period	1	1
Domestic short-term debt		
Avg. real interest rate	2.4%	2.4%

* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2030. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

Figure 3. Maldives: Realism Tools



1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

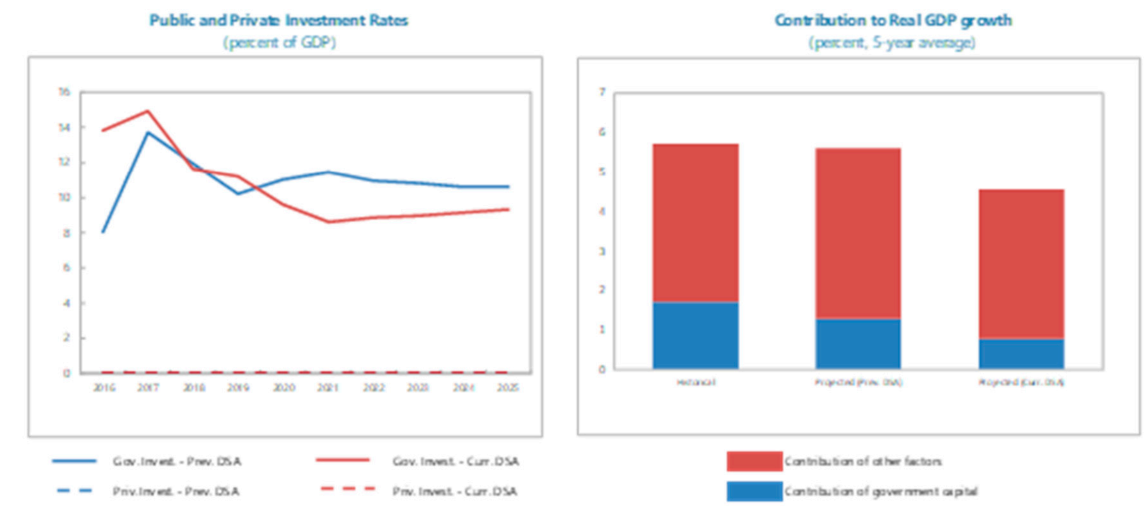
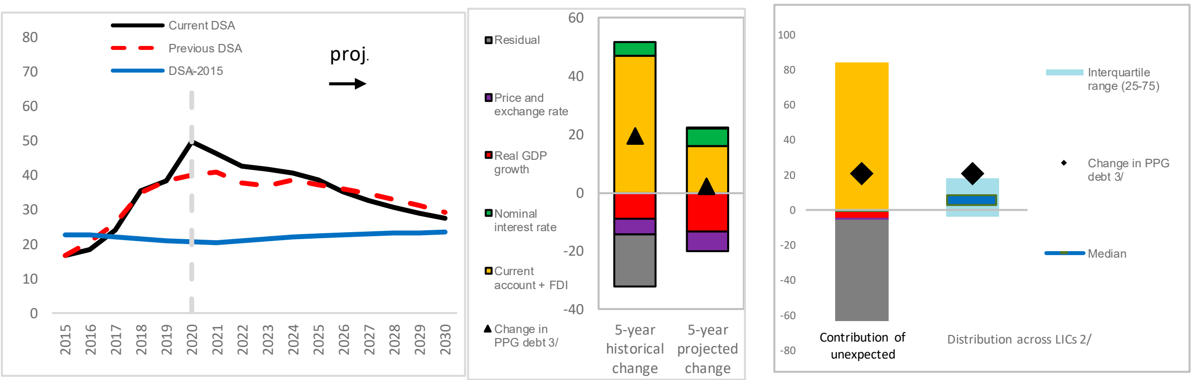


Figure 4. Maldives: Drivers of Debt Dynamics – Baseline Scenario

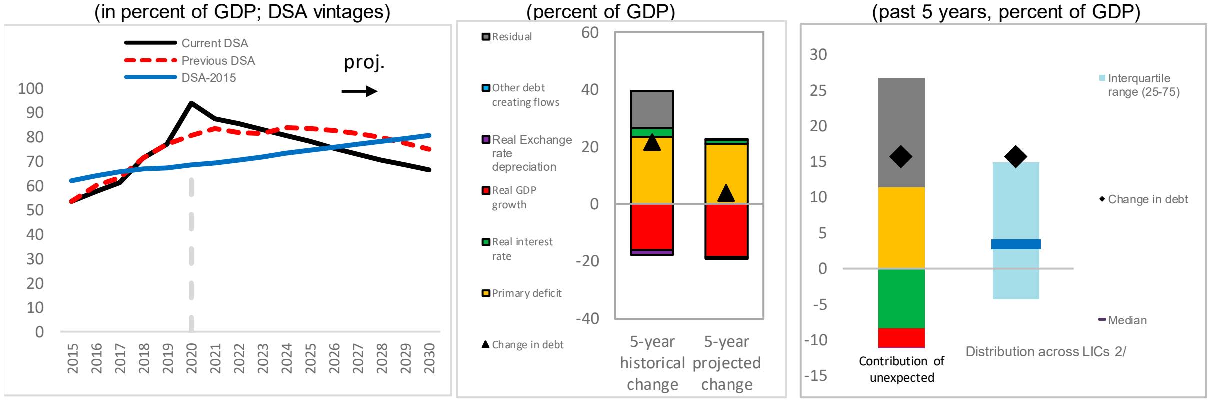
External debt

Gross Nominal PPG External Debt (in percent of GDP; DSA vintages) | Debt-creating flows (percent of GDP) | Unexpected Changes in Debt 1/ (past 5 years, percent of GDP)



Public debt

Gross Nominal Public Debt (in percent of GDP; DSA vintages) | Debt-creating flows (percent of GDP) | Unexpected Changes in Debt 1/ (past 5 years, percent of GDP)



1/ Difference between anticipated and actual contributions on debt ratios.

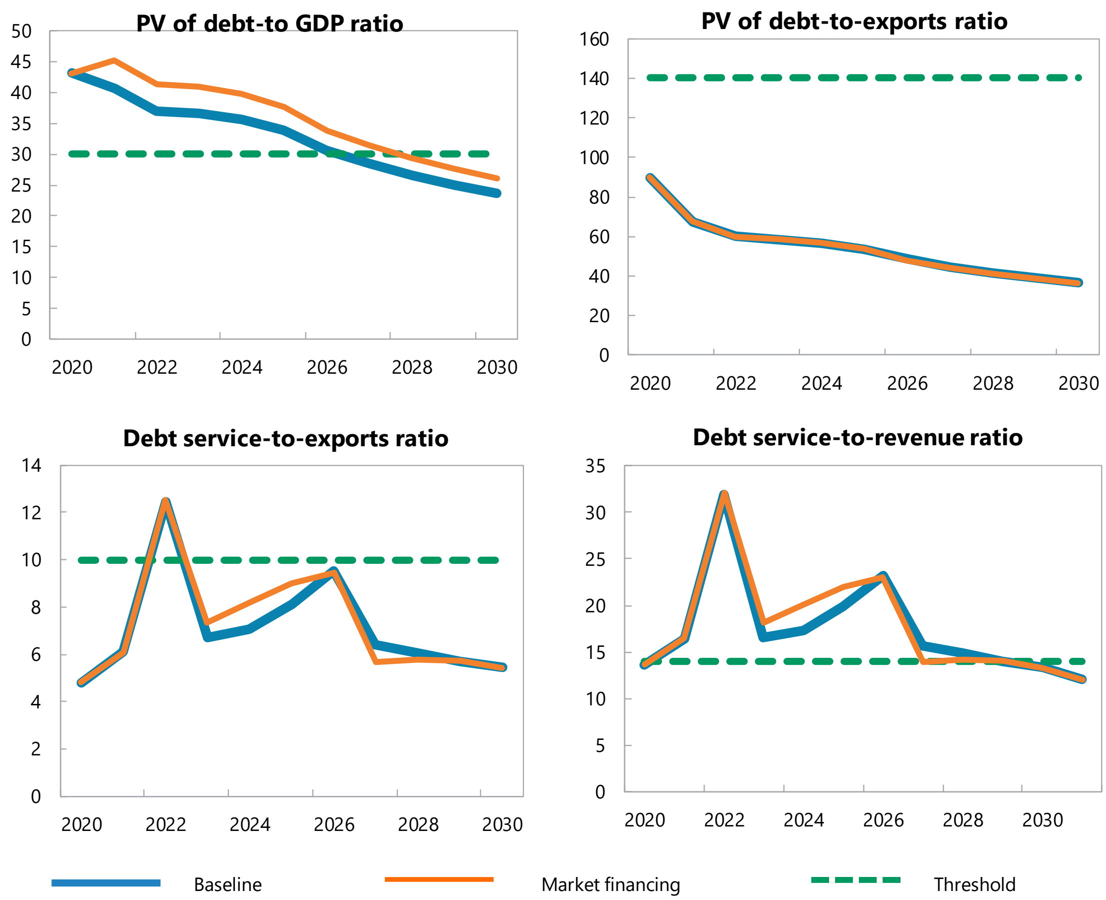
2/ Distribution across LICs for which LIC DSAs were produced.

3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

Figure 5. Maldives: Market Financing Risk Indicators

	GFN 1/	EMBI 2/
Benchmarks	14	570
Values	14	350
Breach of benchmark	No	No
Potential heightened liquidity needs	Low	

1/ Maximum gross financing needs (GFN) over 3-year baseline projection horizon.
2/ EMBI spreads correspond to the latest available data.



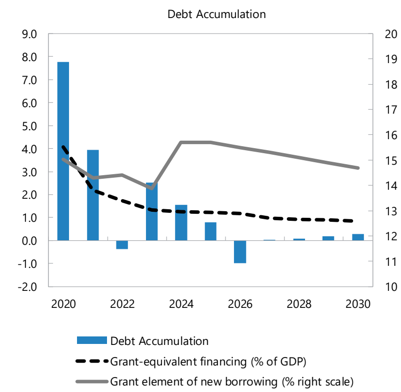
Sources: Country authorities; and staff estimates and projections.

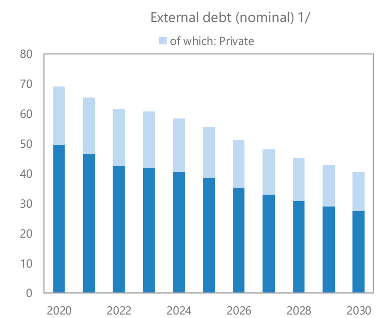
Table 1. Maldives: External Debt Sustainability Framework, Baseline Scenario, 2017–2040

(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 8/	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2040	Historical	Projections
External debt (nominal) 1/	**35.6**	**50.4**	**54.2**	**69.0**	**65.3**	**61.5**	**60.6**	**58.3**	**55.5**	**40.5**	**28.9**	**35.9**	**54.3**
of which: public and publicly guaranteed (PPG)	**24.1**	**35.3**	**38.3**	**49.6**	**46.4**	**42.6**	**41.8**	**40.5**	**38.5**	**27.4**	**20.6**	**25.0**	**37.7**
Change in external debt	8.2	14.7	3.9	14.8	-3.8	-3.8	-0.9	-2.3	-2.8	-2.2	-0.5		
Identified net debt-creating flows	**9.9**	**11.6**	**7.0**	**21.8**	**-4.5**	**-3.3**	**-3.0**	**-2.4**	**-2.6**	**-1.9**	**0.0**	**0.7**	**-0.8**
Non-interest current account deficit	**21.1**	**24.9**	**24.6**	**22.2**	**10.5**	**7.9**	**7.8**	**8.1**	**7.8**	**5.4**	**3.6**	**13.6**	**8.4**
Deficit in balance of goods and services	3.9	7.9	6.3	9.8	-4.4	-7.0	-7.3	-7.0	-7.0	-7.4	-7.0	**-5.0**	**-5.7**
Exports	70.2	69.2	65.2	48.0	60.0	61.7	62.7	62.8	63.0	64.2	63.4		
Imports	74.0	77.1	71.5	57.7	55.5	54.7	55.3	55.9	56.0	56.8	56.3		
Net current transfers (negative = inflow)	9.9	9.3	10.1	8.3	9.7	9.9	10.0	9.9	9.7	7.6	5.8	**9.6**	**9.0**
of which: official	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other current account flows (negative = net inflow)	7.3	7.7	8.2	4.1	5.3	5.0	5.2	5.1	5.1	5.1	4.8	**9.0**	**5.0**
Net FDI (negative = inflow)	**-9.7**	**-10.8**	**-15.5**	**-6.0**	**-8.5**	**-8.7**	**-8.7**	**-8.7**	**-8.7**	**-6.2**	**-3.0**	**-10.6**	**-7.8**
Endogenous debt dynamics 2/	**-1.5**	**-2.4**	**-2.1**	**5.6**	**-6.5**	**-2.5**	**-2.1**	**-1.8**	**-1.7**	**-1.1**	**-0.5**		
Contribution from nominal interest rate	0.6	1.5	1.5	0.9	1.4	1.3	1.2	1.3	1.3	0.8	0.6		
Contribution from real GDP growth	-1.7	-2.2	-2.6	4.7	-7.9	-3.8	-3.4	-3.0	-2.9	-1.9	-1.2		
Contribution from price and exchange rate changes	-0.4	-1.8	-1.0	...	...	...	...	...	...	...	...		
Residual 3/	**-1.8**	**3.1**	**-3.1**	**-7.0**	**0.7**	**-0.5**	**2.1**	**0.2**	**-0.3**	**-0.3**	**-0.5**	**0.3**	**-0.5**
of which: exceptional financing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	**...**	**...**	**32.8**	**43.1**	**40.6**	**37.1**	**36.6**	**35.5**	**33.8**	**23.7**	**17.7**		
PV of PPG external debt-to-exports ratio	**...**	**...**	**50.4**	**90.0**	**67.7**	**60.0**	**58.5**	**56.6**	**53.7**	**36.8**	**27.9**		
PPG debt service-to-exports ratio	**2.8**	**3.4**	**6.1**	**4.8**	**6.1**	**12.5**	**6.7**	**7.1**	**8.1**	**5.4**	**4.0**		
PPG debt service-to-revenue ratio	**7.2**	**9.1**	**15.5**	**13.7**	**16.4**	**31.9**	**16.6**	**17.3**	**19.8**	**13.4**	**9.5**		
Gross external financing need (Million of U.S. dollars)	805.2	1112.5	882.4	1143.2	537.9	678.7	490.9	546.4	614.0	539.1	983.3		
Key macroeconomic assumptions													
Real GDP growth (in percent)	6.8	6.9	5.7	-8.1	13.2	6.4	5.9	5.4	5.4	4.8	4.2	**6.2**	**4.9**
GDP deflator in US dollar terms (change in percent)	1.4	5.3	2.0	2.4	2.5	2.0	2.0	2.0	2.0	2.0	2.0	**3.1**	**2.1**
Effective interest rate (percent) 4/	2.3	4.9	3.3	1.6	2.3	2.2	2.1	2.2	2.3	2.1	2.3	**1.9**	**2.2**
Growth of exports of G&S (US dollar terms, in percent)	5.4	10.9	1.6	-30.8	45.1	11.7	9.7	7.7	7.8	7.0	6.4	**8.4**	**8.1**
Growth of imports of G&S (US dollar terms, in percent)	9.5	17.1	0.0	-24.0	11.6	7.0	9.2	8.5	7.7	7.0	6.7	**11.2**	**5.3**
Grant element of new public sector borrowing (in percent)	...	...	...	15.0	14.3	14.4	13.9	15.7	15.7	14.7	13.3	**...**	**15.0**
Government revenues (excluding grants, in percent of GDP)	27.5	26.1	25.7	16.9	22.2	24.2	25.3	25.6	25.8	26.2	26.8	**24.6**	**24.6**
Aid flows (in Million of US dollars) 5/	14.1	53.2	92.3	238.0	156.6	138.1	116.9	119.5	124.7	125.8	179.0		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	4.1	2.2	1.7	1.3	1.3	1.2	0.9	0.6	**...**	**1.5**
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	32.9	32.5	27.4	24.8	27.2	26.5	25.1	19.3	**...**	**27.5**
Nominal GDP (Million of US dollars)	4,729	5,321	5,734	5,398	6,263	6,798	7,345	7,895	8,487	12,036	22,639		
Nominal dollar GDP growth	8.3	12.5	7.8	-5.9	16.0	8.5	8.0	7.5	7.5	6.9	6.3	**9.4**	**7.1**
Memorandum items:													
PV of external debt 7/	...	...	48.8	62.6	59.5	56.0	55.4	53.4	50.7	36.8	26.0		
In percent of exports	...	...	74.8	130.5	99.2	90.7	88.4	85.0	80.6	57.3	41.0		
Total external debt service-to-exports ratio	7.9	9.9	9.7	10.4	10.2	16.6	10.7	11.0	11.8	8.3	6.0		
PV of PPG external debt (in Million of US dollars)			1882.8	2328.6	2541.5	2519.0	2690.5	2805.1	2868.1	2846.8	3999.7		
(PVt-PVt-1)/GDPt-1 (in percent)				7.8	3.9	-0.4	2.5	1.6	0.8	0.3	1.0		
Non-interest current account deficit that stabilizes debt ratio	13.0	10.1	20.7	7.4	14.3	11.7	8.8	10.3	10.6	7.5	4.1		

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	No





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

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

6/ 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).

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

8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

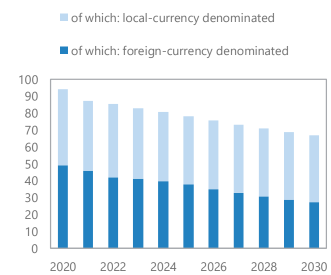
Table 2. Maldives: Public Sector Debt Sustainability Framework, Baseline Scenario, 2017–2040

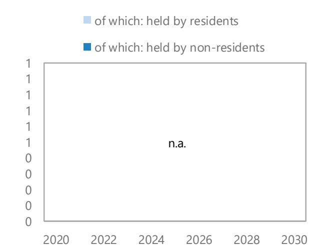
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 6/	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2040	Historical	Projections
Public sector debt 1/	**61.3**	**71.3**	**76.9**	**93.9**	**87.3**	**85.4**	**83.0**	**80.7**	**78.1**	**66.7**	**51.4**	**59.6**	**78.4**
of which: external debt	**24.1**	**35.3**	**38.3**	**49.6**	**46.4**	**42.6**	**41.8**	**40.5**	**38.5**	**27.4**	**20.6**	**25.0**	**37.7**
Change in public sector debt	3.6	10.0	5.7	17.0	-6.7	-1.9	-2.4	-2.3	-2.5	-1.9	-1.6		
Identified debt-creating flows	**1.8**	**-1.0**	**1.0**	**16.8**	**-6.3**	**-1.9**	**-2.4**	**-2.3**	**-2.5**	**-1.8**	**-1.6**	**0.9**	**-0.9**
Primary deficit	**4.8**	**3.3**	**3.9**	**10.1**	**4.4**	**3.1**	**1.9**	**1.4**	**1.1**	**0.4**	**-0.2**	**4.8**	**2.3**
Revenue and grants	27.8	27.1	27.3	19.4	23.7	25.1	26.0	26.3	26.4	26.6	27.0	**25.4**	**25.4**
of which: grants	0.3	1.0	1.6	2.6	1.4	1.0	0.7	0.6	0.6	0.4	0.2		
Primary (noninterest) expenditure	32.6	30.4	31.2	29.6	28.1	28.2	27.9	27.7	27.5	27.0	26.9	**30.2**	**27.7**
Automatic debt dynamics	**-2.9**	**-4.3**	**-2.9**	**6.7**	**-10.7**	**-4.9**	**-4.3**	**-3.7**	**-3.6**	**-2.3**	**-1.4**		
Contribution from interest rate/growth differential	-2.9	-3.6	-2.9	6.7	-10.7	-4.9	-4.3	-3.7	-3.6	-2.3	-1.4		
of which: contribution from average real interest rate	0.7	0.3	0.9	-0.1	0.3	0.3	0.4	0.5	0.6	0.9	0.8		
of which: contribution from real GDP growth	-3.7	-4.0	-3.8	6.8	-11.0	-5.2	-4.8	-4.2	-4.1	-3.1	-2.2		
Contribution from real exchange rate depreciation	0.0	-0.7	0.0	...	...	...	...	...	...	...	...		
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**	**-0.5**	**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 contingent liabilities (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		
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 debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	**1.7**	**10.9**	**4.7**	**0.2**	**-0.3**	**0.0**	**0.0**	**0.0**	**0.0**	**-0.1**	**0.0**	**1.9**	**-0.1**
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	**...**	**...**	**71.5**	**87.5**	**81.5**	**79.9**	**77.8**	**75.7**	**73.4**	**62.9**	**48.4**		
PV of public debt-to-revenue and grants ratio	**...**	**...**	**261.5**	**449.7**	**344.0**	**318.1**	**298.9**	**288.2**	**278.0**	**236.5**	**179.1**		
Debt service-to-revenue and grants ratio 3/	**10.4**	**12.4**	**17.2**	**15.0**	**24.3**	**42.8**	**36.8**	**36.9**	**41.2**	**46.0**	**27.3**		
Gross financing need 4/	7.7	6.7	8.6	13.0	10.1	13.8	11.5	11.1	12.0	12.7	7.2		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	6.8	6.9	5.7	-8.1	13.2	6.4	5.9	5.4	5.4	4.8	4.2	**6.2**	**4.9**
Average nominal interest rate on external debt (in percent)	3.5	7.2	4.7	2.3	3.2	3.1	3.1	3.2	3.3	3.1	3.3	**2.8**	**3.1**
Average real interest rate on domestic debt (in percent)	1.1	-2.2	0.2	-0.9	-0.9	-0.4	0.1	0.1	0.2	1.5	1.7	**-0.4**	**0.3**
Real exchange rate depreciation (in percent, + indicates depreciation)	0.1	-2.9	0.1	...	...	...	...	...	...	...	...	**-1.3**	**...**
Inflation rate (GDP deflator, in percent)	1.4	5.3	2.0	2.4	2.5	2.0	2.0	2.0	2.0	2.0	2.0	**5.0**	**2.1**
Growth of real primary spending (deflated by GDP deflator, in percent)	-0.6	-0.1	8.5	-13.0	7.4	6.9	4.8	4.6	4.5	4.6	4.4	**5.6**	**3.6**
Primary deficit that stabilizes the debt-to-GDP ratio 5/	1.2	-6.6	-1.8	-6.9	11.0	4.9	4.3	3.7	3.6	2.4	1.4	**-2.4**	**3.2**
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Definition of external/domestic debt	**Currency-based**
Is there a material difference between the two criteria?	**No**

Public sector debt 1/





Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central government, central bank, government-guaranteed debt . Definition of external debt is Currency-based.

2/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.

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

4/ 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 and other debt creating/reducing flows.

5/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio ((-): a primary surplus), which would stabilizes the debt ratio only in the year in question.

6/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Table 3. Maldives: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2020–2030

(In percent)

	Projections 1/										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PV of debt-to GDP ratio											
Baseline	**43**	**41**	**37**	**37**	**36**	**34**	**31**	28	27	25	24
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	**43**	**44**	**43**	**45**	**46**	**47**	**46**	**46**	**47**	**47**	**47**
B. Bound Tests											
B1. Real GDP growth	**43**	**47**	**44**	**43**	**42**	**40**	**36**	**34**	**32**	30	28
B2. Primary balance	**43**	**42**	**41**	**41**	**40**	**38**	**35**	**33**	**31**	30	28
B3. Exports	**43**	**58**	**75**	**74**	**71**	**65**	**59**	**53**	**49**	**44**	**40**
B4. Other flows 3/	**43**	**45**	**46**	**45**	**43**	**41**	**37**	**34**	**32**	29	27
B5. Depreciation	**43**	**51**	**46**	**45**	**44**	**42**	**38**	**35**	**33**	**31**	29
B6. Combination of B1-B5	**43**	**68**	**66**	**65**	**62**	**58**	**52**	**48**	**44**	**40**	**37**
C. Tailored Tests											
C1. Combined contingent liabilities	**43**	**43**	**40**	**40**	**39**	**38**	**35**	**33**	**31**	29	28
C2. Natural disaster	**43**	**45**	**42**	**42**	**42**	**41**	**38**	**36**	**35**	**33**	**32**
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	**43**	**45**	**41**	**41**	**40**	**38**	**34**	**31**	29	28	26
Threshold	30	30	30	30	30	30	30	30	30	30	30
PV of debt-to-exports ratio											
Baseline	90	68	60	58	57	54	48	45	42	39	37
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	90	73	70	72	74	74	73	73	74	74	73
B. Bound Tests											
B1. Real GDP growth	90	68	60	58	57	54	48	45	42	39	37
B2. Primary balance	90	69	66	65	63	61	56	52	49	46	44
B3. Exports	90	**140**	**199**	**192**	**183**	**169**	**152**	137	124	113	103
B4. Other flows 3/	90	75	74	72	69	65	58	54	49	46	43
B5. Depreciation	90	68	59	57	56	53	48	44	41	38	36
B6. Combination of B1-B5	90	134	89	128	122	114	102	93	85	78	72
C. Tailored Tests											
C1. Combined contingent liabilities	90	72	65	64	62	60	55	51	48	46	44
C2. Natural disaster	90	75	69	68	67	65	61	58	55	52	51
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	90	68	60	59	57	54	48	44	41	39	36
Threshold	140	140	140	140	140	140	140	140	140	140	140
Debt service-to-exports ratio											
Baseline	5	6	**12**	7	7	8	10	6	6	6	5
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	5	6	**13**	7	8	9	**11**	8	8	8	8
B. Bound Tests											
B1. Real GDP growth	5	6	**12**	7	7	8	10	6	6	6	5
B2. Primary balance	5	6	**13**	7	8	9	**10**	7	7	6	6
B3. Exports	5	9	**22**	**15**	**18**	**23**	**25**	**19**	**18**	**17**	**16**
B4. Other flows 3/	5	6	**13**	7	8	10	**11**	8	7	7	6
B5. Depreciation	5	6	**12**	7	7	8	9	6	6	6	5
B6. Combination of B1-B5	5	9	**20**	**12**	**15**	**16**	**18**	**13**	**13**	**12**	**11**
C. Tailored Tests											
C1. Combined contingent liabilities	5	6	**13**	7	7	8	10	7	6	6	6
C2. Natural disaster	5	6	**13**	7	8	9	**10**	7	7	6	6
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	5	6	**13**	7	8	9	9	6	6	6	5
Threshold	10	10	10	10	10	10	10	10	10	10	10
Debt service-to-revenue ratio											
Baseline	14	**16**	**32**	**17**	**17**	**20**	**23**	**16**	**15**	14	13
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	14	**17**	**34**	**18**	**19**	**22**	**27**	**20**	**20**	**20**	**20**
B. Bound Tests											
B1. Real GDP growth	14	**19**	**38**	**20**	**21**	**24**	**28**	**19**	**18**	**17**	**16**
B2. Primary balance	14	**16**	**32**	**17**	**18**	**21**	**25**	**17**	**17**	**16**	**15**
B3. Exports	14	**16**	**35**	**22**	**27**	**35**	**37**	**29**	**27**	**26**	**24**
B4. Other flows 3/	14	**16**	**33**	**18**	**20**	**23**	**26**	**19**	**18**	**17**	**16**
B5. Depreciation	14	**21**	**40**	**21**	**22**	**25**	**29**	**19**	**18**	**17**	**17**
B6. Combination of B1-B5	14	**19**	**42**	**23**	**29**	**32**	**36**	**26**	**25**	**23**	**22**
C. Tailored Tests											
C1. Combined contingent liabilities	14	**16**	**32**	**17**	**18**	**20**	**24**	**16**	**15**	**15**	14
C2. Natural disaster	14	**16**	**32**	**17**	**18**	**21**	**24**	**17**	**16**	**15**	**14**
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	14	**16**	**32**	**18**	**20**	**22**	**23**	14	**14**	**14**	13
Threshold	14	14	14	14	14	14	14	14	14	14	14

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the threshold.
2/ Variables include real GDP growth, GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
3/ Includes official and private transfers and FDI.

Table 4. Maldives: Sensitivity Analysis for Key Indicators of Public Debt, 2020–2030
(In percent)

	Projections 1/										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PV of Debt-to-GDP Ratio											
Baseline	**87**	**81**	**80**	**78**	**76**	**73**	**71**	**69**	**67**	**65**	**63**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	**87**	**85**	**83**	**81**	**79**	**77**	**76**	**75**	**74**	**73**	**72**
B. Bound Tests											
B1. Real GDP growth	**87**	**97**	**102**	**104**	**106**	**107**	**109**	**110**	**112**	**113**	**115**
B2. Primary balance	**87**	**84**	**88**	**85**	**83**	**81**	**78**	**76**	**73**	**71**	**69**
B3. Exports	**87**	**99**	**118**	**115**	**111**	**105**	**99**	**94**	**89**	**84**	**80**
B4. Other flows 3/	**87**	**86**	**89**	**86**	**84**	**80**	**77**	**74**	**72**	**69**	**67**
B5. Depreciation	**87**	**89**	**85**	**80**	**76**	**72**	**68**	**64**	**60**	**57**	**53**
B6. Combination of B1-B5	**87**	**85**	**88**	**88**	**87**	**86**	**85**	**84**	**83**	**82**	**82**
C. Tailored Tests											
C1. Combined contingent liabilities	**87**	**88**	**86**	**84**	**82**	**79**	**77**	**74**	**72**	**70**	**68**
C2. Natural disaster	**87**	**93**	**91**	**89**	**87**	**84**	**82**	**80**	**78**	**76**	**74**
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	**87**	**81**	**80**	**78**	**76**	**73**	**71**	**68**	**66**	**64**	**63**
TOTAL public debt benchmark	35	35	35	35	35	35	35	35	35	35	35
PV of Debt-to-Revenue Ratio											
Baseline	450	344	318	299	288	278	269	260	251	243	237
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	450	358	329	311	301	294	289	283	279	275	273
B. Bound Tests											
B1. Real GDP growth	450	404	405	398	402	405	411	414	419	425	431
B2. Primary balance	450	356	349	328	317	305	296	286	277	268	261
B3. Exports	450	416	470	441	421	397	375	354	334	316	299
B4. Other flows 3/	450	363	353	331	318	305	293	281	270	260	251
B5. Depreciation	450	376	338	309	290	273	257	241	227	213	201
B6. Combination of B1-B5	450	360	351	336	331	326	322	317	313	309	306
C. Tailored Tests											
C1. Combined contingent liabilities	450	373	344	323	312	301	291	281	272	264	257
C2. Natural disaster	450	390	362	341	330	320	311	302	294	286	279
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	450	344	318	299	289	278	268	259	250	242	235
Debt Service-to-Revenue Ratio											
Baseline	15	24	43	37	37	41	47	44	45	45	46
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2030 2/	15	25	43	36	36	39	45	42	43	43	46
B. Bound Tests											
B1. Real GDP growth	15	28	55	53	58	68	79	79	84	88	93
B2. Primary balance	15	24	47	46	45	49	55	50	51	52	52
B3. Exports	15	24	45	42	46	56	61	56	57	57	57
B4. Other flows 3/	15	24	43	38	39	45	50	46	47	48	48
B5. Depreciation	15	26	51	42	40	46	52	46	46	47	47
B6. Combination of B1-B5	15	25	48	49	50	57	65	60	61	62	62
C. Tailored Tests											
C1. Combined contingent liabilities	15	24	53	43	43	47	52	47	48	48	49
C2. Natural disaster	15	25	58	47	47	52	56	52	52	53	53
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	15	24	43	38	40	43	47	42	44	45	46

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the benchmark.
2/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.
3/ Includes official and private transfers and FDI.