INTERNATIONAL MONETARY FUND

MALDIVES

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

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This Debt Sustainability Analysis (DSA) updates the May 2016 DSA. Maldives' risk rating continues to be rated at 'high risk of external debt distress', based on an assessment of public external debt and rebased GDP figures, and it continues to maintain a heightened overall risk of debt distress.[1]

The current government continues its massive scaling up of infrastructure investment to achieve sustainable and inclusive economic growth and diversify the economy. This scaling up could transform the economy but it also carries risks. The slowdown in tourism receipts in 2015 and 2016 and rise in recurrent and capital spending have weakened public finances. The country faces challenges with rising debt levels, greater reliance on external financing, and tighter limits on capacity to repay.[2]

In 2016, the authorities undertook bold initiatives to eliminate electricity subsidies and significantly scaled down food subsidies (a saving of 2 percent of GDP) and continue to improve the targeting of key welfare programs. Revenue measures are expected to generate additional receipts of 2.9 and 1.8 percent of GDP in 2017 and 2018 by government estimates. These ambitious efforts have been reflected only in part in the staff baseline, as fiscal policy slippages and shocks to tourism exports and capital expenditures remain key risks. Stabilizing and reducing public debt ratios will require strengthening the medium-term fiscal framework to improve the external position and sustain confidence in fiscal sustainability.

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[1] The IMF has provided Technical Assistance (TA) to the National Bureau of Statistics (NBS) on compiling 2014-benchmarked and rebased GDP estimates in revising the national accounts for the period 2003-2015. This DSA is based on the results of the rebased GDP estimates, to be released in October 2017.

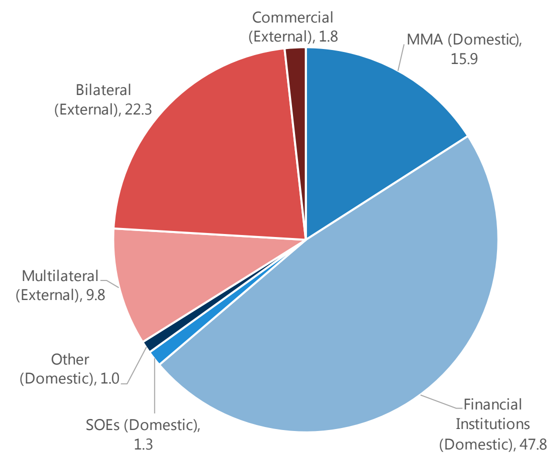
[2] Maldives continues to be PRGT-eligible to date even though it meets the PRGT income criterion by a large margin. Short-term macroeconomic vulnerabilities in the Maldives, particularly a risk of income decline and loss of market access from elevated debt, has kept it from graduating from PRGT eligibility. Broad alignment with IDA practices is also an important element in defining its PRGT eligibility as it remains an IDA-only country based on the small island economy exception, receiving most of its assistance from IDA on grant terms.

RECENT DEBT DEVELOPMENTS

1. **The Maldives is embarking on large infrastructure investment to ease structural constraints and close gaps in communications, electricity and transportation.** Expansion of the international and regional airports, resorts, hotel and guest house developments are expected to increase tourism and the demand for ancillary services.[3] Major regional hub development and land connectivity in the Greater Malé area will support population resettlement, reduce government service costs, and ease congestion. However, this investment surge has added considerably to already elevated public debt and external financing risks.

2. **Total public debt is estimated at about US$2.8 billion (65.7 percent of GDP) in 2016.**[4] Public debt is defined as the debt of the non-financial public sector comprising central government, including loans on-lent to State Owned Enterprises (SOEs), sovereign guarantees issued to SOEs[5] and domestic payable arrears which have accumulated since 2012.[6] Public debt is held mainly by domestic banks, pension funds, the Maldives Monetary Authority (MMA) and official multilateral and bilateral creditors. Private sector external debt data is estimated to be around US$0.6 billion but is subject to large errors and further revisions given the open capital account and little reporting. The government has relied heavily on the issuance of Treasury bills and monetization (at least in the past) as well as external borrowing to finance its deficits.[7]

Public Debt Holdings by Sector
(Percent distribution)



3. **Public debt remains above the 60 percent limit specified in the Fiscal Responsibility Act (FRA) (Table 3).** The increase in debt initially reflected additional expenditure needs in the aftermath of the 2004 Tsunami but since then higher recurrent spending on wages, social welfare, and subsidies and (more recently) capital spending on infrastructure scale up have added to the deficit. Primary deficits are expected to be above debt-stabilizing levels over the medium term until such time infrastructure spending winds down. Thereafter, primary deficits are expected to improve driven by new revenue measures introduced over 2016-17 (particularly increased import duties and the Airport Development Fee (ADF)) and subsidy reforms. Under the baseline scenario, public debt is set to decline starting in 2022 reaching around 69.8 percent of GDP by 2037.

[3] Capacity in the tourism sector is set to expand following the infrastructure scale up, and the baseline assumes favorable long-term tourism forecasts in the South Asia region, according to "Tourism towards 2030" (UN-World Tourism Organization).

[4] The fiscal year for Maldives corresponds with the calendar year.

[5] The Ministry of Finance and Treasury (MOFT) continues to compile and record all data and information regarding outstanding sovereign guarantees.

[6] Staff's initial estimates indicate the arrears to be around 2.5 percent of GDP as of end-2016.

[7] Recourse to direct monetization was banned under the Fiscal Responsibility Act (FRA), enacted in 2014.

4. The external debt ratio is sharply increasing and peaks in the medium term, reflecting the large ongoing infrastructure scale up and the recent sovereign bond issuance of US$200 million. Total external disbursements are estimated to be US$1.4 billion over 2016-2021, which include megaprojects such as the international airport development, a road bridge connecting the airport to the capital, continued investment in new housing developments, and the relocation and expansion of the sea port. Major creditors include both bilateral and multilateral creditors such as China, Saudi Arabia, Abu Dhabi and the OPEC Fund with lending at interest rates of 2 to 5 percent and maturities close to 20 years or longer. In contrast, the recent issuance of sovereign bonds in June 2017 at 7 percent interest and shorter maturity runs counter to these terms.

5. Maldives' CPIA score has deteriorated, changing the category of its policies and institutions to 'weak', and tightening debt thresholds for the DSA analysis. The three-year average CPIA score of Maldives (2014–16) dropped to 3.18 from 3.20 (2013-15). Weak policies and institutions as measured by this index in the areas of quality of budgetary and financial management and social inclusion and business environment have led to the downgrade, tightening the thresholds for the indicators related to the present value (PV) of Public and Publicly Guaranteed (PPG) external debt.[8]

MACROECONOMIC ASSUMPTIONS

6. The baseline scenario is built on current policies, including staff's assessment of the 2017 Budget. The 2017 Budget was underpinned by two considerations: (i) adhering in principle to the FRA's fiscal rule on primary balance, and (ii) finding fiscal space for infrastructure scale-up. While substantial benefits are likely to accrue from the 2016 subsidy reforms, the 2017 Budget is underpinned by optimistic assumptions. Staff's baseline does not include estimates for revenues from the Special Economic Zones (SEZs) and takes a more cautious view on new and existing revenue sources (particularly income from SOEs) than do the government's estimates.[9] Staff projections factor in implementation bottlenecks associated with capital projects and allow a modest growth in recurrent expenditure to accommodate higher capital spending. Consequently, the primary balance deficit is expected to deteriorate in 2017 before improving thereafter as capital spending winds down and additional revenue measures become better established.

7. The NBS has revised Maldives' national accounts for the period 2003-2015 based on 2014 benchmarked and rebased GDP estimates. The South Asia Regional Training and Technical Assistance Center (SARTTAC) and the IMF Statistics Department have provided TA to assist the NBS in their efforts to finalize the GDP benchmarking and rebasing. The average rebased GDP between 2003 and 2015 is higher by around 11 percent annually, with 2015 GDP revised up by as high as 25 percent (reaching MVR 61.8 billion) compared to 2003-based GDP estimates.

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[8] The new thresholds for the indicators related to the PV of PPG external debt are 30 percent as a ratio to GDP (down from 40); 100 percent as a ratio to exports (down from 150); and 200 percent as a ratio to revenue (down from 250). Similarly, the thresholds for debt service indicators changed from 20 to 15 percent as a ratio to exports, and from 20 to 18 percent as a ratio to revenue.

[9] However, staff projections take into account the new revenue measures, the ADF and increased customs duties, for which requisite legislation has already been passed and made into law.

8. Key assumptions: Overall, the baseline macroeconomic assumptions are more favorable compared to the previous DSA over the near- to medium-term coinciding with the anticipated growth effects of the airport and other infrastructure development materialize (text table 1).[10]

- **Real GDP growth.** Growth is expected to recover gradually to 4.6 percent in 2017 and 4.7 percent in 2018. It is projected to average around 5.0 percent in the long term largely driven by the positive impact of infrastructure development. It is slower though than the average of the past ten years (around 6.5 percent) reflecting the earlier rapid development of the tourism sector.

Text Table Maldives: Changes in Macro Assumptions

	2017	2018	2019	2020	2021	2022
Real GDP growth (in percent)						
Previous	3.9	4.6	4.7	4.8	4.7	4.7
Current	4.6	4.7	4.8	5.0	5.0	5.0
Inflation						
Previous	2.5	2.8	3.0	3.2	3.2	3.2
Current	2.0	2.0	2.0	2.4	2.5	2.5
Primary fiscal balance (in percent of GDP)						
Previous	-14.7	-14.5	-10.7	-4.9	-4.6	-4.6
Current	-5.8	-4.6	-3.3	-2.6	-1.9	-0.9
Current account balance (in percent of GDP)						
Previous	-14.7	-17.3	-14.1	-10.9	-10.6	-10.4
Current	-17.2	-17.0	-16.4	-14.3	-12.9	-10.3

- **Inflation.** CPI inflation is projected to pick up in 2017 mainly due to the temporary effect of staple food and electricity subsidy reforms along with an increase in import duty on cigarettes, soft-and energy drinks, and higher international oil prices. It is expected to stabilize around 2.5 percent in the medium- to long-term reflective of stable commodity prices and economic performance.

- **The current account.** The current account deficit widened sharply to 19.6 percent of GDP in 2016, due to increased infrastructure-related imports, moderate tourism receipts, higher remittance outflows, and a large one-off court mandated payment. The current account remains in large deficit territory for a few years; the deficit starts to decline with completion of the large projects in the pipeline and stabilizes, albeit at a still high level of around 9.5 percent of GDP on average over 2022–2037.

- **The fiscal deficit.** The primary deficit under the baseline, is expected to widen in 2017 before falling in subsequent years mainly because of tapering capital spending, full materialization of subsidy reforms undertaken in 2016, and introduction of new but modest revenue measures.[11]

- **Financing.** In recent past, the bulk of deficit financing has been met from domestic sources, through the domestic banking system and the pension fund. Interest rates rose sharply in the primary market for Treasury bills in 2012 and 2013. Starting in mid-2014, the auction system was replaced with a 'tap system' of administered interest rates, lowering the rates to a range of

[10] The baseline scenario in the DSA assumes that the stabilized arrangement is maintained despite reserve cover dwindling through 2034.

[11] For all new revenue measures in the budget, their full year's effect will be seen from 2018 given that measures were mostly implemented starting in 2017H1.

3.5–4.6 percent across maturities ranging from 28 to 364 days and temporarily stabilizing interest costs on domestic debt. So far, the banks have sustained their demand for Treasury bills. However, as debt rises, yields may increase along with global interest rates. Accordingly, staff assumes that domestic yields will tighten over the forecast horizon. In countering such roll-over / market risks authorities are seeking to lengthen the maturity structure of domestic debt by issuing longer-term instruments. Such efforts are at a planning stage but if implemented effectively they can lower the re-pricing and roll-over risk of the domestic debt portfolio. Non-market, external infrastructure loans are assumed to be on semi-concessional terms at relatively lower interest rates (ranging from 2 to 5 percent) and longer maturities (20 years or longer).

- **New debt.** New infrastructure projects were included in the 2016 Budget. The DSA assumes external disbursements totaling US$1.4 billion over the period 2016-21. This includes the government's first international sovereign bond issuance in June 2017 to help fund the mega projects. Being the first, these bonds will act as benchmark for future issuances for both the private sector and SOEs. Moody's assigned the Maldives a B2 sovereign rating (considered 'speculative and subject to high credit risk') and Fitch a B+ rating (falling between a BB Speculative and a B Highly Speculative). Given that a large share of the loans contracted and the bonds are not on concessional terms, this will affect IDA's financing decision going forward (see Box 1).[12]

- **Sovereign guarantees.** Liabilities arising from sovereign guarantees amount to US$240 million (5.6 percent of 2016 GDP). Guarantees are included in the definition of PPG external debt and the called guarantees in the fiscal accounts.

[12] Maldives is a group A (ADF only) country in the AsDB and an IDA-eligible country under the small island exception. The proportion of grant financing for both these institutions is contingent on the country's risk of external debt distress. This is determined by the outcome of a forward-looking DSA. For more information, visit http://www.adb.org/site/adf/faqs and http://www.worldbank.org/ida/financing.html.

Box 1. Maldives and IDA's Non-Concessional Borrowing Policy[1]

Maldives, an IDA-grant eligible country, is subject to IDA's Non-Concessional Borrowing Policy (NCBP), and is required to seek external loans with a minimum grant element of 35 percent.[2] Between 2015 and June 2017 Maldives signed US$1,031 million (24.3 percent of 2016 GDP) in external loans on non-concessional terms including the sovereign bond. In the absence of an IMF program and its associated borrowing limits, IDA still has its NCBP in place and therefore a breach will entail requesting a waiver to the policy. Waivers are considered based on country- and loan-specific criteria. IDA's NCBP committee found Maldives in breach of the NCBP and responded through the provision of the country's notional IDA allocation for FY2018 on a 50 percent grant and 50 percent IDA credit basis.

Going forward, the MOFT has committed to seeking external loans on the most concessional terms possible, and to the extent that it is necessary to borrow on non-concessional terms for high-return development projects, it will request the approval of the IDA Board for a ceiling to cover the projected non-concessional borrowing to comply with the NCBP.

[1] NCBP Board paper, October 2015: http://ida.worldbank.org/sites/default/files/pdfs/ncbpoct2015.pdf. For more information, visit http://www.worldbank.org/ida/non-concessional-borrowing.html

[2] IDA countries subject to the NCBP in FY2017: http://ida.worldbank.org/sites/default/files/pdfs/fy17_listcountries_traffic_lights.pdf. Non-concessional debt ceilings under the NCBP in FY2017: http://ida.worldbank.org/sites/default/files/pdfs/oecd_dlp_and_ncbp_table_05_31_2017.pdf.

EXTERNAL AND PUBLIC DEBT SUSTAINABILITY

9. External debt sustainability. The main concern continues to be the PV of external debt-to-GDP ratio and the PPG external debt service-to-revenue ratio. Under the baseline scenario, the nominal PPG external debt rises to 51.3 percent of GDP over the medium term and falls slightly to 49.7 percent of GDP by 2037 while the PV of PPG external debt peaks at 25.6 percent of GDP over the medium term and falls to 20.8 percent by the end of the projection period (Figure 1, panel b). The external debt path is vulnerable to all DSA's standard shocks but especially to an exports' shock highlighting the risk that a slowdown in tourism is critical to both the balance of payments and debt sustainability. While the PPG external debt service-to-revenue ratio spikes in 2022 due to the bond redemption, it remains below but extremely close to the threshold under the baseline, and is vulnerable to exports, combination and depreciation shocks (Figure 1, panel f).

10. Public debt sustainability. The primary deficit is expected to fall in subsequent years mainly on the back of tapering capital spending, subsidy reforms in 2016 and adoption of new revenue measures. The public debt ratio stands well above the indicative benchmark over the projection period, but is projected to be on a downward trend compared to the previous DSA. Under the baseline, the PV of public debt rises from 61.3 percent of GDP in 2016, peaks at 67.7 percent in 2020 and then falls to 62.9 percent of GDP by 2037 (Figure 2).

ALTERNATIVE SCENARIO

11. To highlight risks from the sovereign guarantees, staff includes the impact of calling guarantees under an alternative scenario. The probability that guarantees are called presents a substantial vulnerability given the lack of fiscal space currently. To illustrate the full impact of this, the alternative scenario assumes the following:

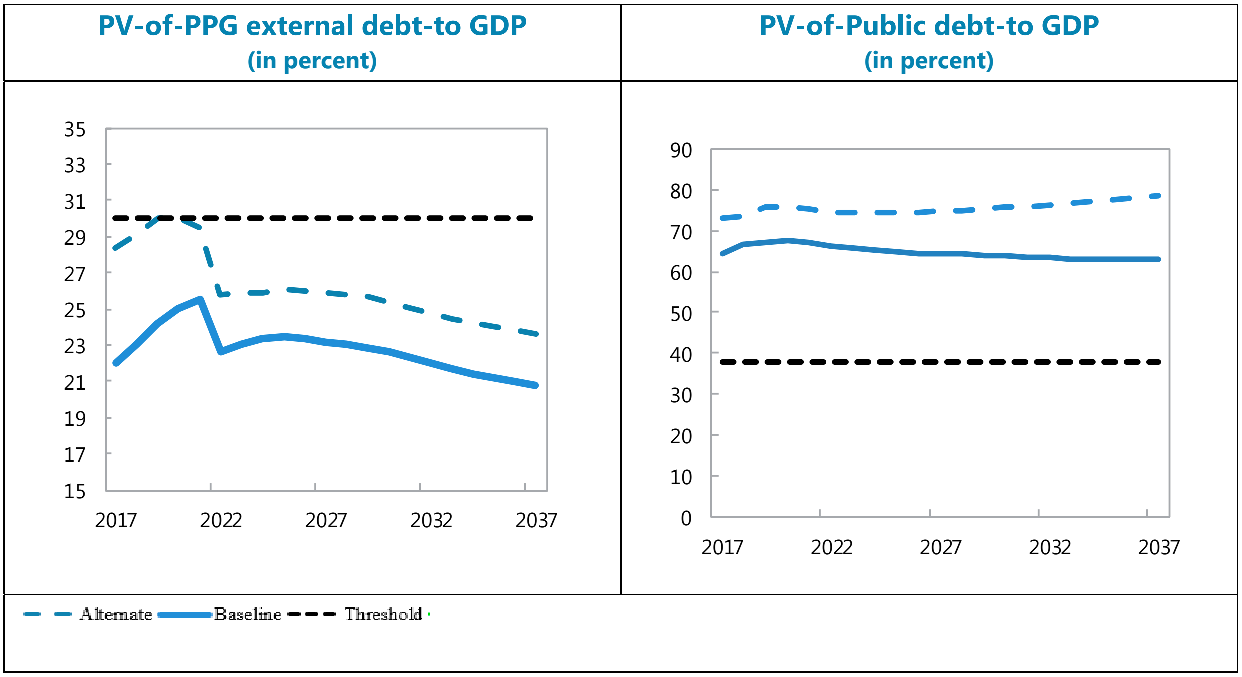
- **2017 sovereign guarantee scheme.** A guarantee scheme was introduced in January 2017 under which the government partly underwrites eligible loans granted by banks to tourism, social housing and development projects, at rates not exceeding 4 percent. Eligible borrowers can be the private sector or SOEs. Ceilings on the amounts issued are yet to be announced. Based on estimates of the portfolio growth of eligible loans, sovereign guarantees are estimated at around 0.4 percent of GDP.[13] The alternative scenario includes cost estimates associated with sovereign guarantees to the private sector in the form of fiscal costs in the event of a default.[14]

- **Existing sovereign guarantee scheme.** Under the alternative scenario, it is also assumed that all uncalled guarantees will be called. In addition, the authorities are currently negotiating new guarantees with creditors – the amounts and terms of which are not clear. To capture this, the scenario also assumes that new guarantees in the amount US$110 million will be issued and called. These assumptions attempt to highlight the fiscal and external vulnerability from the proposed guarantees in the pipeline.

12. Assessment. As anticipated, under the alternative scenario, both the PV of PPG external debt-to-GDP ratio and the PV of public debt-to-GDP ratio are worse than the baseline. The PV of PPG external debt-to-GDP ratio hovers around the threshold and the PV of public debt-to-GDP ratio deteriorates by almost 10 percentage points of GDP. This scenario strengthens the argument to tighten fiscal policy and scrutinize borrowing plans, to design guarantees to avoid unnecessarily exposing the government to fiscal risk as well as to strengthen practices and improve institutions to appraise and manage projects and implement them at an adequate pace over the medium term.

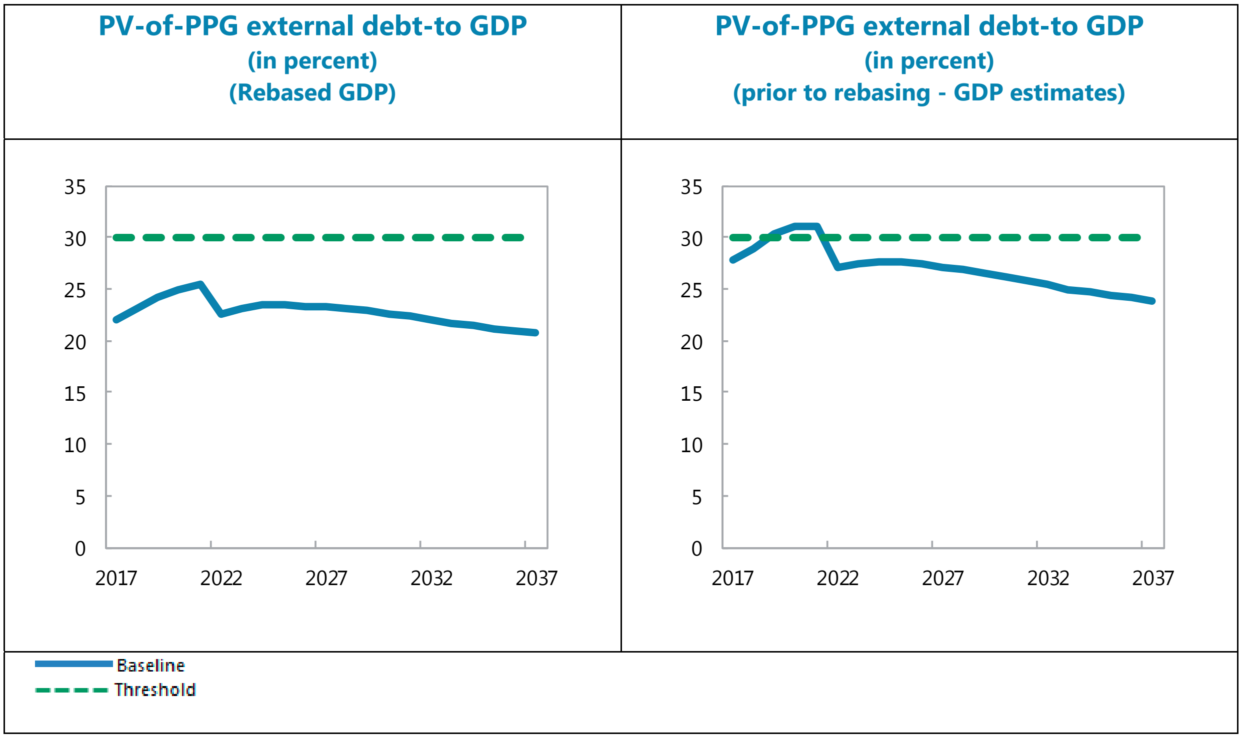
[13] The scheme as it stands now is tightly ring-fenced in terms of qualifying loans, thorough evaluation by the government, ability of the government to insist on additional security and a lower pecking order recourse to the guarantee in the event of a default.

[14] Costs are estimated based on (i) only a certain percent of all loans (estimated at 30 percent) to the private sector and SOEs qualifying for the sovereign guarantee scheme; (ii) a 30 percent probability of default is assumed on the guaranteed loans; and (iii) the fiscal cost to the government to be 50 percent of the default value (because of the lower pecking order claim on the guarantee in the event of a default).



ASSESSMENT

13. The DSA highlights the need to bring down debt ratios and calls for additional fiscal consolidation measures, greater prioritization of overall capital expenditures, improved public financial management practices and measures to reduce the risk of the debt portfolio. The authorities are seeking financing on the best available terms for a much-needed boost to infrastructure. At the same time, they should pursue new financing opportunities such as those on concessional terms associated with the Paris agreements on climate change and from private investors, under enhanced public-private partnership oversight. With a need for high and sustained financing, it is important that the best terms are continuously negotiated and guarantees designed to limit fiscal risk are stringently monitored. The authorities are implementing fiscal measures and project public debt on a downward path. They have approved a Medium-Term Debt Management Strategy 2018-20 aiming to increase the maturity of domestic debt and reduce refinancing risk, although they need to develop an annual borrowing plan to implement it. However, despite such measures coming on stream, the DSA highlights that the high level of public debt remains a vulnerability for years to come. In addition, given the central nature of tourism in the economy, a slowdown in this sector or an abatement in FDI could exert pressure on financing. It is also worth mentioning that the DSA results based on previous estimates of GDP (before the 2014-based rebasing and benchmarking) have shown a clear breach in the PV of PPG of debt-to-GDP threshold underscoring vulnerabilities in the debt outlook.



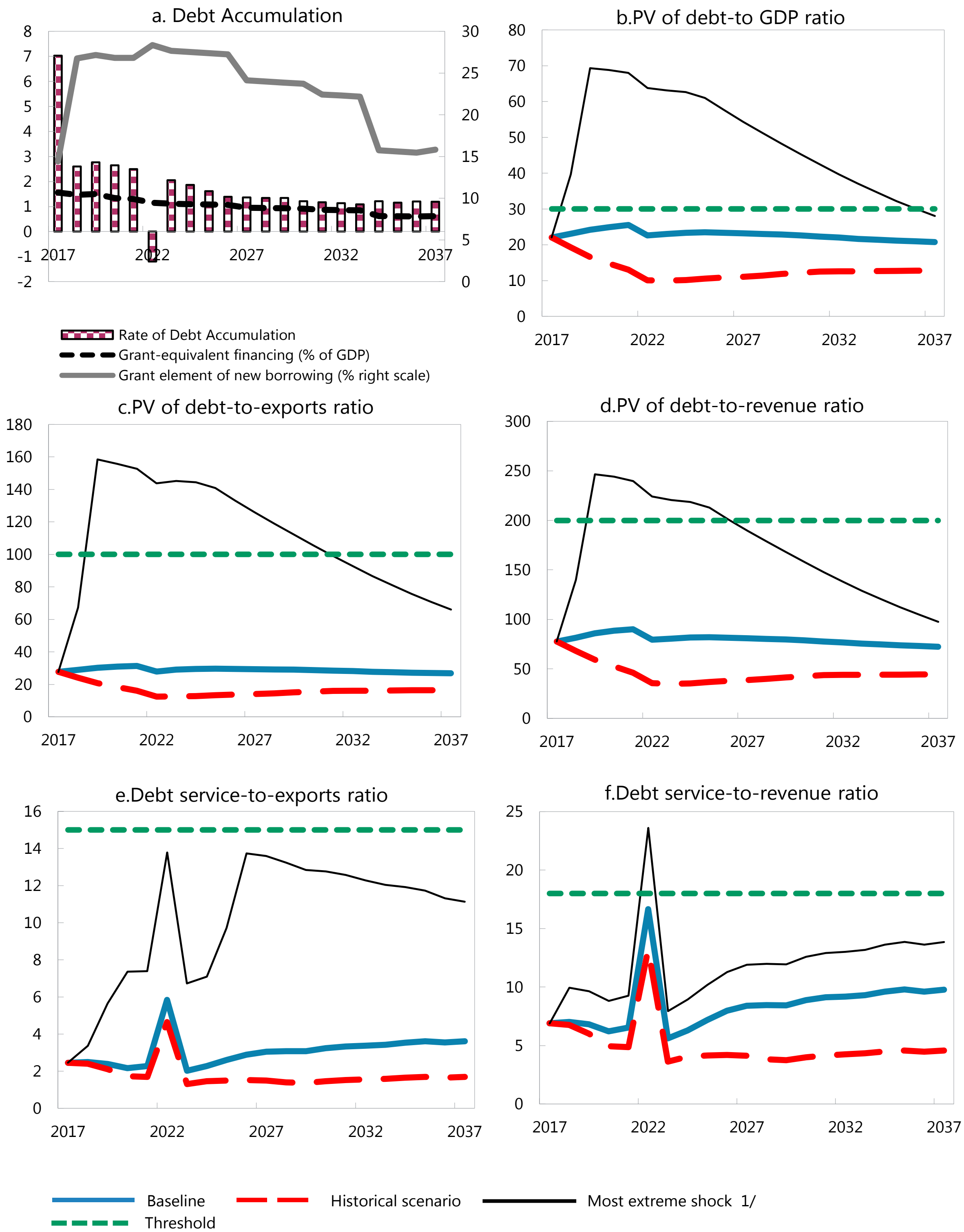
CONCLUSION

14. Risk rating. Maldives' main challenge remains one of balancing a surge in infrastructure investment which has the potential of transforming the economy against the continuing risks stemming from high and rising public debt, the bond redemption in 2022, and the short maturity of domestic debt. While the GDP rebasing suggests that the capacity to service the debt is higher than previously estimated, the improvement in the external debt path below relevant thresholds is due entirely to the rebasing of GDP as opposed to an improvement in economic and policy fundamentals. A widening current account deficit, low international reserves, pipeline of guarantees, and rapid debt buildup continue to skew the risks to the downside and leaves the country vulnerable to standard shocks, particularly a one-time depreciation and an exports shock. In addition, the public debt path is substantially above the prudential benchmark throughout the projection period underscoring a heightened overall risk of debt distress. Based on this, it is assessed that the external risk rating for the Maldives' continues to be rated as "high" risk of external debt distress.

AUTHORITIES' VIEWS

15. The authorities recognized that while the level of debt was high, it has been invested mainly in growth-enhancing infrastructure. They pointed out that the IMF estimates do not fully capture the future growth impacts from the borrowing. They expect significant economic benefits and faster economic growth from the infrastructure scale-up and improved connectivity in the Greater Malé region. In anticipation of impending future debt service, the government has established a Sovereign Development Fund aimed at helping pay maturing debt in the future and contingencies under sovereign guarantees. Nevertheless, they added that obtaining loans on concessional terms has become increasingly challenging.

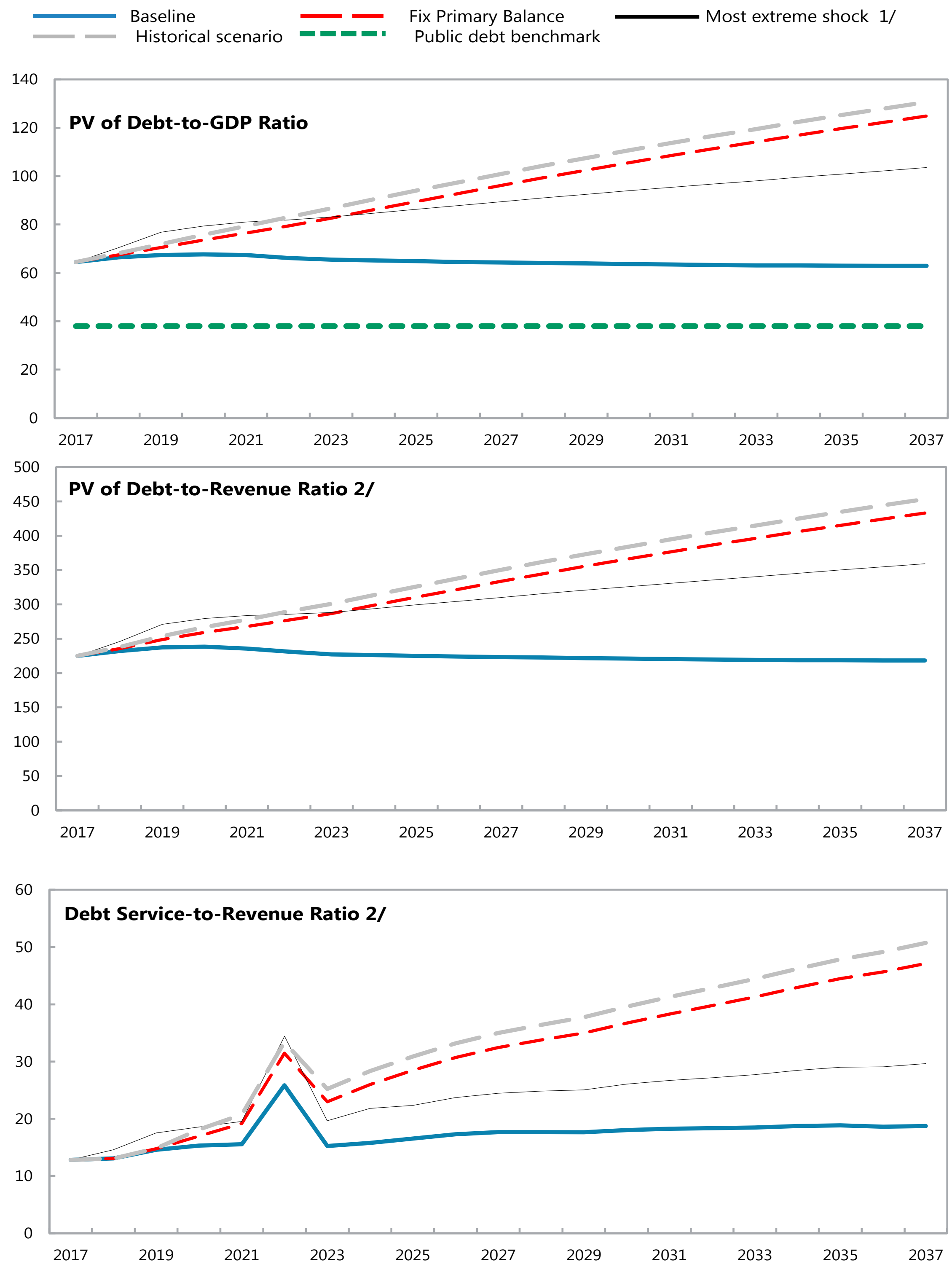
Figure 1. Maldives Baseline Scenario: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2017–2037 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2027. In figure b. it corresponds to a Exports shock; in c. to a Exports shock; in d. to a Exports shock; in e. to a Exports shock and in figure f. to a One-time depreciation shock

Figure 2. Maldives Baseline Scenario: Indicators of Public Debt Under Alternative Scenarios, 2017–2037 1/



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio on or before 2027.
2/ Revenues are defined inclusive of grants.

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

(In percent of GDP, unless otherwise indicated)

(In percent of GDP, unless otherwise indicated)

	Actual			Historical 6/ Average	Standard 6/ Deviation	Projections									
	2014	2015	2016			2017	2018	2019	2020	2021	2022	2017-2022 Average	2027	2037	2023-2037 Average
External debt (nominal) 1/	**28.9**	**27.2**	**34.7**			**38.9**	**42.8**	**46.4**	**49.1**	**51.2**	**49.3**		**53.6**	**49.7**	
of which: public and publicly guaranteed (PPG)	18.9	17.1	20.8			27.0	28.7	30.4	31.6	32.5	29.7		30.7	27.7	
Change in external debt	2.2	-1.7	7.5			4.2	3.9	3.6	2.7	2.1	-1.9		0.2	-0.6	
Identified net debt-creating flows	-8.8	-2.7	7.6			5.8	4.8	5.0	3.9	3.7	1.0		1.0	0.5	
Non-interest current account deficit	**2.5**	**6.5**	**18.6**	**10.3**	**7.3**	**16.0**	**15.4**	**14.7**	**12.5**	**11.0**	**8.4**		**7.7**	**6.9**	7.5
Deficit in balance of goods and services	-14.8	-9.4	-4.0			-0.2	-0.7	-1.4	-3.7	-5.3	-7.9		-9.1	-9.9	
Exports	89.4	78.3	79.4			79.7	79.9	80.0	80.7	81.4	81.0		78.9	77.6	
Imports	74.6	69.0	75.4			79.5	79.1	78.5	77.0	76.1	73.1		69.8	67.7	
Net current transfers (negative = inflow)	8.3	8.6	15.0	9.2	2.1	8.5	8.5	8.5	8.5	8.5	8.6		8.6	8.7	8.6
of which: official	-0.3	-1.0	-0.7			-0.4	-0.2	-0.2	-0.2	-0.2	-0.2		-0.1	-0.1	
Other current account flows (negative = net inflow)	8.9	7.3	7.6			7.7	7.6	7.6	7.7	7.7	7.8		8.2	8.2	
Net FDI (negative = inflow)	**-9.0**	**-7.7**	**-10.6**	**-9.2**	**2.8**	**-10.0**	**-10.5**	**-9.5**	**-8.3**	**-7.0**	**-7.0**		**-6.5**	**-6.2**	-6.5
Endogenous debt dynamics 2/	**-2.2**	**-1.5**	**-0.5**			**-0.2**	**-0.2**	**-0.3**	**-0.3**	**-0.4**	**-0.5**		**-0.2**	**-0.1**	
Contribution from nominal interest rate	0.7	0.8	1.0			1.3	1.5	1.7	1.8	1.9	1.9		2.0	2.1	
Contribution from real GDP growth	-1.8	-0.9	-1.0			-1.5	-1.7	-1.9	-2.1	-2.3	-2.4		-2.2	-2.2	
Contribution from price and exchange rate changes	-1.1	-1.5	-0.4			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**11.0**	**1.0**	**-0.1**			**-1.5**	**-0.9**	**-1.4**	**-1.2**	**-1.5**	**-2.8**		**-0.8**	**-1.2**	
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	
PV of external debt 4/	...	...	30.3			34.0	37.2	40.2	42.4	44.2	42.3		46.1	42.8	
In percent of exports	...	...	38.2			42.6	46.6	50.2	52.6	54.3	52.2		58.5	55.1	
PV of PPG external debt	**...**	**...**	**16.5**			**22.0**	**23.1**	**24.2**	**25.0**	**25.5**	**22.6**		**23.2**	**20.8**	
In percent of exports	**...**	**...**	**20.7**			**27.7**	**28.9**	**30.2**	**30.9**	**31.4**	**27.9**		**29.4**	**26.8**	
In percent of government revenues	**...**	**...**	**58.7**			**77.7**	**81.3**	**86.0**	**88.6**	**90.0**	**79.5**		**80.9**	**72.4**	
Debt service-to-exports ratio (in percent)	**6.1**	**7.8**	**4.6**			**5.1**	**5.2**	**5.5**	**5.6**	**5.9**	**9.7**		**7.8**	**8.3**	
PPG debt service-to-exports ratio (in percent)	**2.5**	**1.9**	**2.1**			**2.5**	**2.5**	**2.4**	**2.2**	**2.3**	**5.9**		**3.1**	**3.6**	
PPG debt service-to-revenue ratio (in percent)	**8.5**	**5.5**	**5.8**			**6.9**	**7.0**	**6.8**	**6.2**	**6.5**	**16.7**		**8.4**	**9.8**	
Total gross financing need (Millions of U.S. dollars)	13.8	329.0	635.1			630.9	599.9	701.7	649.1	720.8	821.9		1021.2	1894.3	
Non-interest current account deficit that stabilizes debt ratio	0.3	8.2	11.2			11.7	11.5	11.1	9.8	8.9	10.3		7.4	7.5	
Key macroeconomic assumptions															
Real GDP growth (in percent)	7.6	3.3	3.9	5.1	4.8	4.6	4.7	4.8	5.0	5.0	5.0	4.8	4.4	4.6	4.5
GDP deflator in US dollar terms (change in percent)	4.5	5.3	1.6	5.3	5.2	2.0	2.0	2.0	2.4	2.5	2.5	2.2	2.0	2.0	2.0
Effective interest rate (percent) 5/	3.1	3.0	3.7	3.4	1.5	4.0	4.2	4.2	4.2	4.2	4.0	4.1	4.1	4.4	4.2
Growth of exports of G&S (US dollar terms, in percent)	13.5	-4.7	7.0	20.2	41.0	7.0	7.0	7.0	8.5	8.5	7.1	7.5	6.3	6.5	6.3
Growth of imports of G&S (US dollar terms, in percent)	14.8	0.5	15.5	14.1	23.3	12.4	6.3	6.1	5.3	6.4	3.4	6.6	5.9	6.5	6.1
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	14.4	26.8	27.2	26.8	26.8	28.3	25.1	24.1	15.8	22.3
Government revenues (excluding grants, in percent of GDP)	26.4	26.7	28.1			28.4	28.4	28.1	28.2	28.4	28.5		28.7	28.7	28.7
Aid flows (in Millions of US dollars) 7/	-45.0	-11.5	423.9			112.1	55.9	59.8	91.6	95.5	92.0		118.8	151.8	
of which: Grants	10.7	41.3	12.2			13.0	11.6	11.6	11.6	11.6	11.6		11.6	11.6	
of which: Concessional loans	-55.7	-52.9	411.7			99.1	44.2	48.2	80.0	83.9	80.4		107.2	140.1	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			1.6	1.5	1.5	1.3	1.3	1.1		1.0	0.6	0.9
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			17.1	30.4	30.5	30.3	30.1	32.0		26.9	17.5	24.8
Memorandum items:															
Nominal GDP (Millions of US dollars)	3690.2	4014.8	4238.2			4519.7	4824.7	5158.2	5544.8	5965.8	6418.8		8847.7	16787.7	
Nominal dollar GDP growth	12.4	8.8	5.6			6.6	6.7	6.9	7.5	7.6	7.6	7.2	6.5	6.7	6.6
PV of PPG external debt (in Millions of US dollars)			698.5			996.5	1114.0	1247.7	1384.5	1522.8	1451.6		2052.0	3491.3	
(PVt-PVt-1)/GDPt-1 (in percent)						7.0	2.6	2.8	2.7	2.5	-1.2	2.7	1.4	1.2	1.4
Gross workers' remittances (Millions of US dollars)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of PPG external debt (in percent of GDP + remittances)	...	...	16.5			22.0	23.1	24.2	25.0	25.5	22.6		23.2	20.8	
PV of PPG external debt (in percent of exports + remittances)	...	...	20.7			27.7	28.9	30.2	30.9	31.4	27.9		29.4	26.8	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	2.1			2.5	2.5	2.4	2.2	2.3	5.9		3.1	3.6	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

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

3/ Includes change in assets and valuation effects and over the projection period banks pay down debt abroad/ increase asset position abroad.

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

(In percent)

	Projections							
	2017	2018	2019	2020	2021	2022	**2027**	2037
PV of debt-to GDP ratio								
Baseline	22	23	24	25	26	23	**23**	21
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	22	19	17	15	13	10	**11**	13
A2. New public sector loans on less favorable terms in 2017-2037 2	22	24	26	28	30	27	**32**	36
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	22	24	26	27	28	25	**25**	23
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	22	40	69	69	68	64	**54**	28
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	22	24	25	26	26	23	**24**	22
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	22	29	34	35	35	32	**30**	22
B5. Combination of B1-B4 using one-half standard deviation shocks	22	31	44	44	44	41	**37**	24
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	22	33	34	35	36	32	**33**	29
PV of debt-to-exports ratio								
Baseline	28	29	30	31	31	28	**29**	27
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	28	24	21	18	16	12	**14**	16
A2. New public sector loans on less favorable terms in 2017-2037 2	28	30	33	35	36	34	**40**	47
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	28	29	30	31	31	28	**29**	27
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	28	67	158	156	153	144	**126**	66
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	28	29	30	31	31	28	**29**	27
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	28	36	43	43	43	39	**38**	29
B5. Combination of B1-B4 using one-half standard deviation shocks	28	42	62	62	61	57	**53**	35
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	28	29	30	31	31	28	**29**	27
PV of debt-to-revenue ratio								
Baseline	78	81	86	89	90	79	**81**	72
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	78	68	59	52	46	36	**39**	44
A2. New public sector loans on less favorable terms in 2017-2037 2	78	85	93	99	104	97	**111**	127
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	78	85	94	97	98	87	**88**	79
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	78	140	247	244	240	224	**190**	98
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	78	83	89	92	93	82	**84**	75
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	78	101	122	123	123	112	**105**	78
B5. Combination of B1-B4 using one-half standard deviation shocks	78	110	157	157	156	143	**129**	85
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	78	115	122	126	128	113	**115**	102

Table 2. Maldives: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2017–37 (concluded)

(In percent)

	Projections							
	2017	2018	2019	2020	2021	2022	**2027**	2037
Debt service-to-exports ratio								
Baseline	2	2	2	2	2	6	**3**	4
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	2	2	2	2	2	5	**2**	2
A2. New public sector loans on less favorable terms in 2017-2037 2	2	2	2	2	2	2	**3**	4
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	2	2	2	2	2	6	**3**	4
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	2	3	6	7	7	14	**14**	11
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	2	2	2	2	2	6	**3**	4
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	2	2	3	3	3	6	**4**	4
B5. Combination of B1-B4 using one-half standard deviation shocks	2	3	3	3	3	8	**6**	5
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	2	2	2	2	2	6	**3**	4
Debt service-to-revenue ratio								
Baseline	7	7	7	6	7	17	**8**	10
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	7	7	6	5	5	13	**4**	5
A2. New public sector loans on less favorable terms in 2017-2037 2	7	7	6	5	6	6	**8**	11
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	7	7	7	7	7	18	**9**	11
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	7	7	9	12	12	22	**20**	16
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	7	7	7	6	7	17	**9**	10
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	7	7	7	7	8	18	**11**	11
B5. Combination of B1-B4 using one-half standard deviation shocks	7	7	8	9	9	19	**14**	13
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	7	10	10	9	9	24	**12**	14
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	20	20	20	20	20	20	**20**	20

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline., while grace and maturity periods are the same as in the baseline.
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).
4/ Includes official and private transfers and FDI.
5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.
6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

Table 3. Maldives: Public Sector Debt Sustainability Framework, Baseline Scenario, 2014–37

(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/	54.2	56.9	65.7			69.4	72.0	73.5	74.3	74.3	73.2		71.8	69.8	
of which: foreign-currency denominated	19.3	17.1	20.8			27.0	28.7	30.4	31.6	32.5	29.7		30.7	27.7	
Change in public sector debt	0.5	2.7	8.8			3.7	2.6	1.5	0.7	0.0	-1.1		-0.2	-0.1	
Identified debt-creating flows	1.5	2.4	7.3			3.9	2.7	1.7	0.8	0.1	-1.0		-0.1	-0.1	
Primary deficit	5.1	4.6	8.2	6.7	4.0	5.7	4.6	3.3	2.5	1.9	0.8	3.1	0.9	0.9	0.9
Revenue and grants	26.7	27.7	28.4			28.7	28.6	28.3	28.4	28.5	28.6		28.8	28.8	
of which: grants	0.3	1.0	0.3			0.3	0.2	0.2	0.2	0.2	0.2		0.1	0.1	
Primary (noninterest) expenditure	31.7	32.3	36.6			34.4	33.2	31.6	30.9	30.4	29.5		29.7	29.7	
Automatic debt dynamics	-3.6	-2.2	-1.0			-1.8	-1.9	-1.6	-1.7	-1.8	-1.8		-1.0	-1.0	
Contribution from interest rate/growth differential	-2.9	-1.5	-0.9			-1.8	-1.9	-1.6	-1.6	-1.6	-1.7		-1.0	-1.0	
of which: contribution from average real interest rate	0.8	0.2	1.2			1.1	1.2	1.7	1.9	1.9	1.9		2.0	2.1	
of which: contribution from real GDP growth	-3.8	-1.7	-2.1			-2.9	-3.1	-3.3	-3.5	-3.5	-3.5		-3.0	-3.1	
Contribution from real exchange rate depreciation	-0.6	-0.7	0.0			0.0	0.0	0.0	-0.1	-0.1	-0.1		...	...	
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	-1.0	0.3	1.5			-0.1	-0.1	-0.1	-0.1	-0.1	-0.1		-0.1	0.0	
Other Sustainability Indicators															
PV of public sector debt	...	...	61.3			64.5	66.4	67.3	67.7	67.3	66.2		64.3	62.9	
of which: foreign-currency denominated	...	...	16.5			22.0	23.1	24.2	25.0	25.5	22.6		23.2	20.8	
of which: external	...	...	16.5			22.0	23.1	24.2	25.0	25.5	22.6		23.2	20.8	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	37.0	40.6	49.4			51.5	48.1	48.0	47.0	46.0	47.1		44.6	45.6	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	216.0			224.8	232.0	237.5	238.4	235.8	231.2		223.2	218.3	
PV of public sector debt-to-revenue ratio (in percent)	...	...	218.2			227.1	234.0	239.4	240.2	237.4	232.6		224.3	218.8	
of which: external 3/	...	...	58.7			77.7	81.3	86.0	88.6	90.0	79.5		80.9	72.4	
Debt service-to-revenue and grants ratio (in percent) 4/	15.9	12.4	12.0			12.8	13.1	14.6	15.3	15.6	25.8		17.7	18.7	
Debt service-to-revenue ratio (in percent) 4/	16.1	12.9	12.1			12.9	13.2	14.7	15.4	15.7	26.0		17.7	18.8	
Primary deficit that stabilizes the debt-to-GDP ratio	4.5	1.9	-0.5			2.0	2.0	1.8	1.8	1.9	1.9		1.1	1.0	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	7.6	3.3	3.9	5.1	4.8	4.6	4.7	4.8	5.0	5.0	5.0	4.8	4.4	4.6	4.5
Average nominal interest rate on forex debt (in percent)	1.6	1.2	1.6	1.9	0.8	2.8	3.1	3.0	2.9	2.9	2.6	2.9	2.5	3.0	2.6
Average real interest rate on domestic debt (in percent)	2.9	0.7	3.1	-0.5	4.2	2.0	2.4	3.4	4.0	3.9	4.3	3.3	4.8	4.5	4.7
Real exchange rate depreciation (in percent, + indicates depreciation)	-2.9	-3.8	-0.1	-3.0	4.6	-0.2	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	4.5	5.3	1.6	7.2	3.7	2.0	2.0	2.0	2.4	2.5	2.5	2.2	2.0	2.0	2.0
Growth of real primary spending (deflated by GDP deflator, in percent)	23.1	5.2	17.8	4.6	8.6	-1.9	1.1	-0.1	2.6	3.3	1.7	1.1	4.4	4.6	4.5
Grant element of new external borrowing (in percent)	...	...	...	...	...	14.4	26.8	27.2	26.8	26.8	28.3	25.1	24.1	15.8	...

Sources: Country authorities; and staff estimates and projections.

1/ Public debt is defined as the debt of the non-financial public sector comprising central government, including loans on-lent to State Owned Enterprises (SOEs), sovereign guarantees issued to SOEs and domestic payable arrears.

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. Maldives: Sensitivity Analysis for Key Indicators of Public Debt, Baseline Scenario, 2017–37

	Projections							
	2017	2018	2019	2020	2021	2022	2027	2037
PV of Debt-to-GDP Ratio								
Baseline	64	66	67	68	67	66	64	63
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	64	68	72	76	79	83	101	131
A2. Primary balance is unchanged from 2017	64	67	71	74	76	79	96	125
A3. Permanently lower GDP growth 1/	64	67	69	71	73	73	85	128
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	64	70	77	79	81	82	89	104
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	64	72	80	79	78	77	74	70
B3. Combination of B1-B2 using one half standard deviation shocks	64	71	78	79	80	79	81	85
B4. One-time 30 percent real depreciation in 2018	64	75	76	75	74	73	70	69
B5. 10 percent of GDP increase in other debt-creating flows in 2018	64	76	76	76	75	74	71	68
PV of Debt-to-Revenue Ratio 2/								
Baseline	225	232	237	238	236	231	223	218
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	225	238	254	267	278	290	350	453
A2. Primary balance is unchanged from 2017	225	236	249	259	268	277	334	433
A3. Permanently lower GDP growth 1/	225	235	245	251	254	256	294	445
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	225	246	271	279	284	286	310	359
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	225	252	281	279	275	268	256	243
B3. Combination of B1-B2 using one half standard deviation shocks	225	249	277	280	279	277	280	295
B4. One-time 30 percent real depreciation in 2018	225	263	267	265	261	254	242	239
B5. 10 percent of GDP increase in other debt-creating flows in 2018	225	264	269	268	264	258	247	236
Debt Service-to-Revenue Ratio 2/								
Baseline	13	13	15	15	16	26	18	19
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	13	13	15	18	21	33	35	51
A2. Primary balance is unchanged from 2017	13	13	15	17	19	31	32	47
A3. Permanently lower GDP growth 1/	13	13	15	16	17	29	26	46
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-2019	13	14	16	19	21	33	28	37
B2. Primary balance is at historical average minus one standard deviations in 2018-2019	13	13	16	23	26	32	21	23
B3. Combination of B1-B2 using one half standard deviation shocks	13	13	16	21	24	33	24	29
B4. One-time 30 percent real depreciation in 2018	13	15	18	19	20	34	24	30
B5. 10 percent of GDP increase in other debt-creating flows in 2018	13	13	16	26	20	31	20	22

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.