



TONGA

STAFF REPORT OF THE 2015 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS UPDATE

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Risk of external debt distress	Moderate
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This debt sustainability analysis (DSA) updates the 2014 DSA conducted jointly by the IMF and the World Bank.¹ The results indicate that Tonga remains at a moderate risk of debt distress, and that its external debt sustainability continues to be susceptible to external shocks. The latter is illustrated by the finding that a significant depreciation or slowdown in exports generates the highest debt ratios among different stress tests.

A. Underlying Assumptions

Compared with the previous DSA, the underlying assumptions remain stable with marginal change (Table 1).² The following highlights the main assumptions:

- Real GDP growth for FY2012/13 is revised down to -2.7 percent, from last year's estimate of 0.3 percent. This reflects mostly a significant winding down of construction and related activities. The growth is estimated to have picked up in FY2013/14 to about 2 percent and 2½ percent in FY2014/15, in part driven by the reconstruction needs after Cyclone Ian that hit Tonga in January 2014. In the long term, real growth is expected to converge to the historical trend of 1½–2 percent, driven mostly by agriculture, construction, and tourism.
- The current account deficit is estimated at 1½ percent of GDP in FY2013/14 and projected to remain about 7 percent between FY2015/16—2016/17, driven mostly by higher imports to support the construction for the South Pacific Games. In the long term, exports of

¹ The last full DSA was prepared in June 2014 (SM/14/173, Sup.2). In line with the Staff Guidance Note on the Application of the Joint Bank-Fund Debt Sustainability Framework for Low-Income Countries (SM/13/292), a full DSA is expected to be prepared every three years, or whenever circumstances have changed significantly since the previous DSA, such as a change in the external risk rating or overall risk assessment. Light updates should be prepared in intervening years.

² The public sector comprises the central government and there is no local government in Tonga. The Country Policy and Institutional Assessment (CPIA) rating for Tonga remains at a medium level with a three-year average score of 3.45. The Tonga fiscal year starts in July. For example, FY2014/15 is from July 2014 to June 2015.

goods and tourism receipts are projected to increase gradually reflecting the authorities' continuous efforts in developing exports and tourism sector.

Tonga: Key Macroeconomic Assumptions (In percent)

	2014 DSA	2015 DSA
	2014-19 AVG	2015-20 AVG
Real GDP growth	2.26	2.44
GDP deflator (percentage change)	2.66	2.06
Overall balance (percent of GDP)	-0.15	-0.90
Primary balance (percent of GDP)	0.77	0.06
Growth of exports of G&S (U.S. dollar terms)	5.58	7.90
Growth of imports of G&S (U.S. dollar terms)	5.86	6.03
Current account (percent of GDP)	-3.63	-5.16

Sources: Country authorities; and IMF staff estimates.

- The repayments of two large external loans from China EXIM bank contracted in 2007 and 2010 have recently been rescheduled with an additional 5-year grace period. These loans account for about 60 percent of the outstanding external debt and bear 2 percent interest rate, and 20-year maturity with a total of 10-year grace period.

B. External DSA

Under the baseline scenario, Tonga's external debt and debt service indicators remain below the thresholds (Figure 1). The humps in debt services from 2019 to 2029 reflect mostly repayments of the two external loans from China EXIM bank.

C. Public Sector DSA

The present value of public debt is projected to remain below the benchmark, and steadily decreases to about 20 percent of nominal GDP throughout the projection period (Figure 2).

D. Sensitivity Analysis

Stress tests show that the risk of external debt distress is sensitive to a slowdown in exports or a large one-time currency depreciation. This reflects the small but open nature of Tonga's economy, where imports account for about 60 percent of GDP and remittances account for over 25 percent. Under the most extreme shock scenarios, almost all indicators of external debt remain below the thresholds, except the debt service-to-revenue ratio that breaches slightly the threshold in FY2018/19. This breach is considered a borderline case, where the

probability approach is applied to assess the risk.³ The results show several breaches of the thresholds (Figure 3), indicating a moderate risk of debt distress. While a large one-time depreciation also causes of the most extreme shock in public debt DSA, the present value of public debt in this scenario also decreases gradually to about 20 percent of nominal GDP in the long term.

E. Conclusion

There is no major change to the stock of debt, borrowing prospect, or the macroeconomic framework from the July 2014 DSA. The debt sustainability assessment remains broadly unchanged and the risk of external and public debt distress continues to be classified as moderate.

F. Authorities' Views

The authorities agreed with the staff's assessment. They recognized the importance of prudent debt management in safeguarding debt sustainability and building sound fiscal positions in bolstering resilience to shocks. The authorities are in the process of finalizing the Debt Management Strategy.⁴

³ The probability approach is applied to a borderline case, which is defined as one where the largest breach or near breach falls within a 10-percent band around the threshold. It incorporates a country's individual CPIA score and average GDP growth rate, whereas the traditional approaches uses one of the three discrete CPIA values (3.25 for weak performers, 3.50 for medium performers, and 3.75 for strong performers), and an average growth rate across LICs (for details see the Staff Guidance Note on the Application of the Joint Bank-Fund Debt Sustainability Framework for Low-Income Countries (SM/13/292)).

⁴ The objective of this strategy is to maintain sovereign debt within levels that are sustainable over time, while also ensuring that financing requirements are met at low cost with an acceptable degree of risk in the medium term.

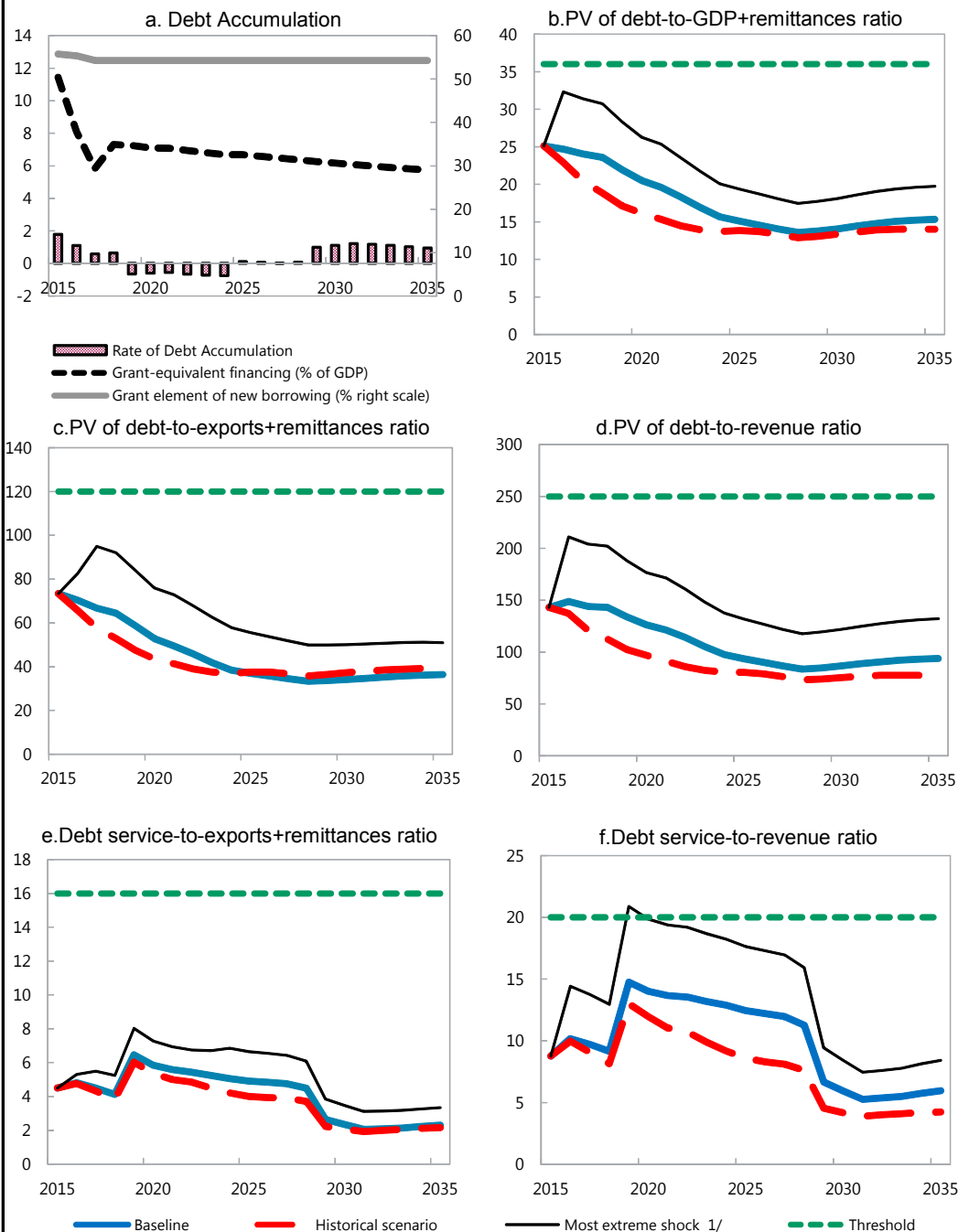
Table 1. Tonga: SDA Update: Key Variables 1/

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2025	2030	2035
	(Percent of GDP, unless otherwise indicated)											
Nominal GDP (US\$ millions)	464	443	443	465	488	508	529	557	579	685	839	1027
Real GDP (percentage change)	0.5	-2.7	2.1	2.5	2.9	2.0	2.0	3.0	2.4	1.7	1.7	1.7
GDP deflator (percentage change)	2.5	0.3	2.3	0.4	1.2	1.9	2.2	3.1	3.6	3.5	3.5	3.5
Fiscal												
Total revenue and grants	27.9	25.6	29.2	30.6	26.8	25.5	26.8	26.8	26.7	25.7	25.5	25.3
Foreign grants	9.5	5.7	9.4	8.8	6.0	4.5	6.0	6.0	5.9	4.6	4.4	4.3
Total expenditure	30.7	26.9	28.1	32.5	28.4	26.5	27.5	27.2	26.9	25.7	24.9	24.3
Interest payments	0.8	0.9	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.7	0.6	0.5
Overall balance	-2.8	-1.3	1.1	-1.8	-1.5	-0.9	-0.6	-0.4	-0.1	0.0	0.6	1.0
Primary balance	-2.0	-0.4	2.0	-1.0	-0.5	0.1	0.3	0.6	0.8	0.7	1.1	1.5
Net domestic financing	-2.4	1.0	-0.4	-1.9	-1.3	-0.6	-0.9	-0.1	0.1	-1.5	-2.7	-3.4
Net external financing	5.2	0.2	-0.7	3.8	2.8	1.6	1.6	0.4	0.0	1.5	2.1	2.4
Balance of payments												
Exports of goods and services	19.5	21.6	17.9	18.1	18.7	19.5	20.1	20.5	21.6	22.8	23.8	25.6
Imports of goods and services	55.9	58.0	53.9	56.4	57.8	57.5	58.4	57.7	58.5	60.0	60.8	61.2
Workers' remittances	16.6	24.3	23.2	24.4	25.3	25.9	26.1	27.0	28.3	30.6	29.5	28.7
Current account	-8.8	-1.9	-1.4	-5.0	-7.5	-7.4	-5.6	-3.6	-1.9	-2.3	-3.3	-3.0
Net foreign direct investment	1.1	3.6	2.6	2.6	2.6	2.6	2.7	2.6	2.7	2.9	2.7	2.2
Gross official reserves	6.6	7.3	7.0	6.9	6.9	6.6	6.7	6.3	6.3	6.3	6.3	6.4
(In months of next year's goods and services import)												

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

1/ Data on fiscal year basis, with fiscal year beginning in July.

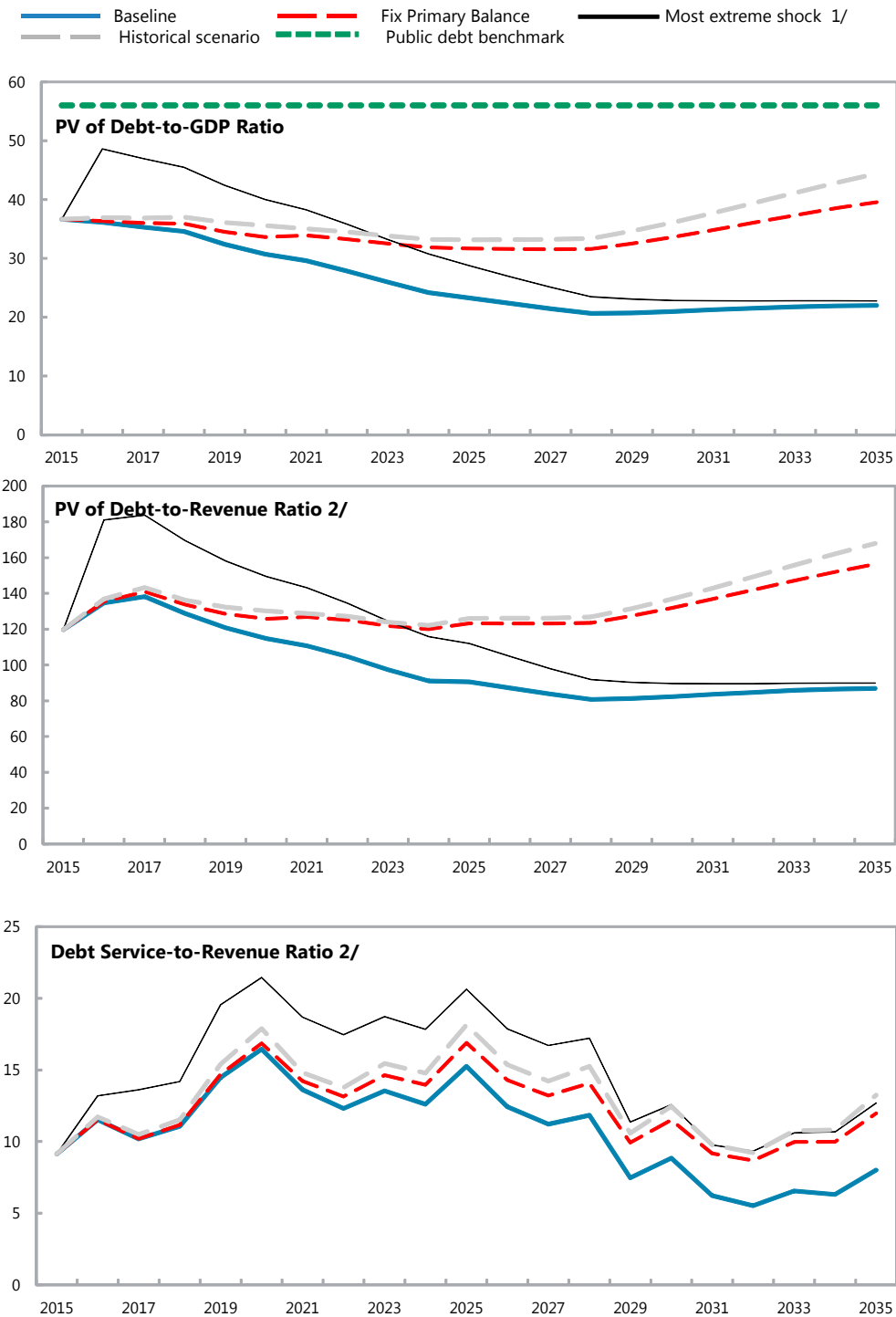
Figure 1. Tonga: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2015-2035 1/



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 2025. In figure b, it corresponds to a One-time depreciation shock; in c, to a Exports shock; in d, to a One-time depreciation shock; in e, to a Exports shock and in figure f, to a One-time depreciation shock

Figure 2. Tonga: Indicators of Public Debt Under Alternative Scenarios, 2015-2035 1/

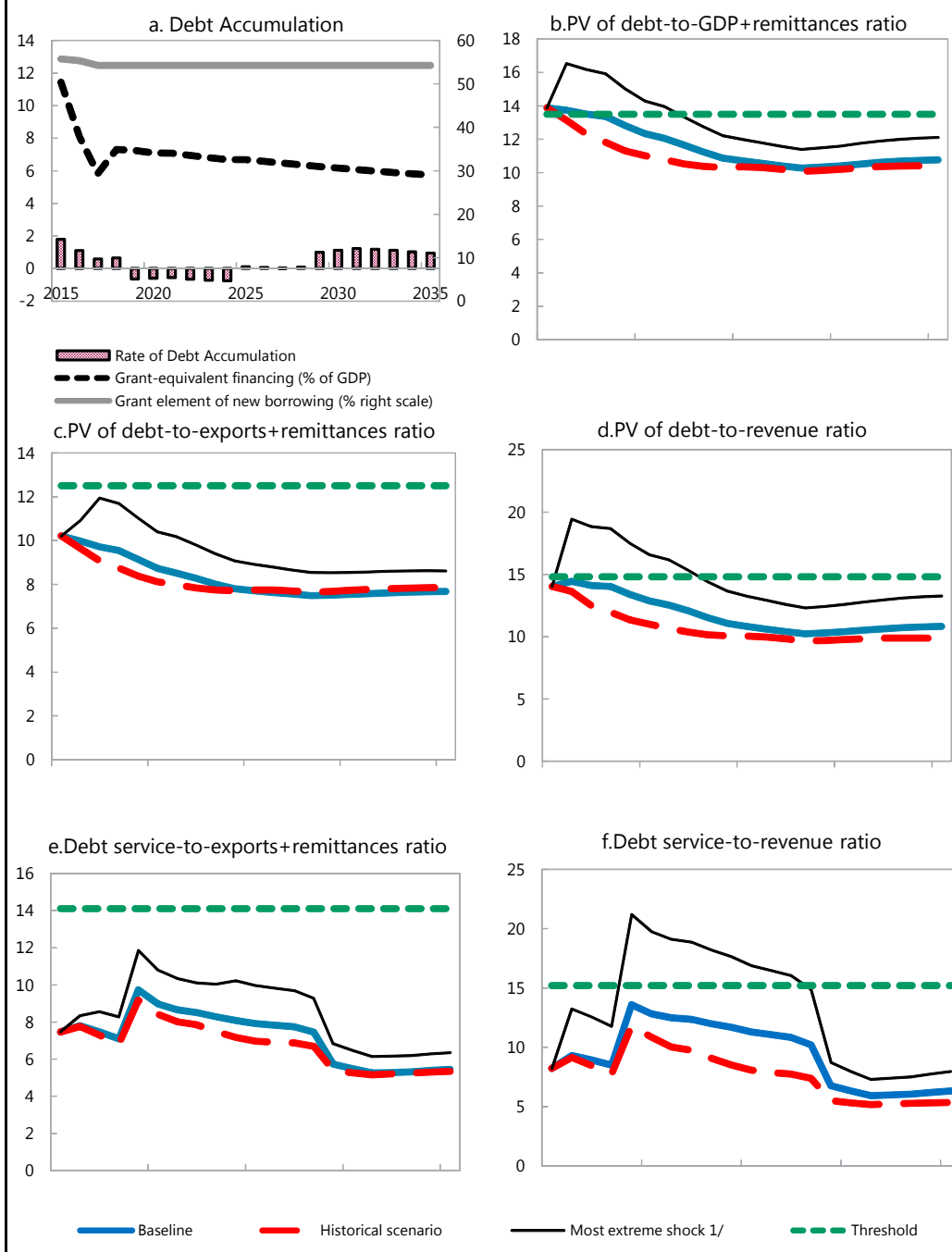


Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2025.

2/ Revenues are defined inclusive of grants.

Figure 3. Tonga: Probability of Debt Distress of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2015-2035 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 2025. In figure b. it corresponds to a One-time depreciation shock; in c. to a Exports shock; in d. to a One-time depreciation shock; in e. to a Exports shock and in figure f. to a One-time depreciation shock

Table 2. Tonga: External Debt Sustainability Framework, Baseline Scenario, 2012–2035 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical ^{6/} Standard ^{6/}		Projections										
	2012	2013	2014	Average	Deviation	2015	2016	2017	2018	2019	2020	2015-2020 Average		2025	2035	2021-2035 Average
External debt (nominal) 1/	42.6	46.0	42.9			44.6	45.0	44.2	43.6	41.5	39.9			34.2	39.2	
<i>of which: public and publicly guaranteed (PPG)</i>	42.6	46.0	42.9			44.6	45.0	44.2	43.6	41.5	39.9			34.2	39.2	
Change in external debt	6.1	3.3	-3.0			1.7	0.3	-0.7	-0.6	-2.1	-1.6			0.2	0.3	
Identified net debt-creating flows	3.9	0.4	-1.2			1.4	3.7	3.9	2.1	-0.3	-1.7			-1.1	0.2	
Non-interest current account deficit	8.2	1.0	0.6	5.3	3.1	4.3	6.8	6.7	5.0	3.0	1.3			1.9	2.5	2.4
Deficit in balance of goods and services	36.5	36.4	36.0			38.2	39.0	38.0	38.3	37.2	36.9			37.3	35.7	
Exports	19.5	21.6	17.9			18.1	18.7	19.5	20.1	20.5	21.6			22.8	25.6	
Imports	55.9	58.0	53.9			56.4	57.8	57.5	58.4	57.7	58.5			60.0	61.2	
Net current transfers (negative = inflow)	-25.1	-26.5	-28.6	-28.8	3.4	-32.1	-30.3	-29.3	-31.2	-32.3	-33.8			-33.7	-31.4	-32.8
<i>of which: official</i>	-7.2	-4.1	-7.0			-7.6	-5.0	-3.6	-5.0	-5.0	-5.0			-3.9	-3.7	
Other current account flows (negative = net inflow)	-3.2	-9.0	-6.8			-1.8	-1.9	-2.0	-2.1	-1.9	-1.8			-1.7	-1.8	
Net FDI (negative = inflow)	-1.1	-3.6	-2.6	-4.7	3.3	-2.6	-2.6	-2.6	-2.7	-2.6	-2.7			-2.9	-2.2	-2.7
Endogenous debt dynamics 2/	-3.2	3.0	0.9			-0.4	-0.6	-0.2	-0.2	-0.6	-0.4			-0.2	-0.2	
Contribution from nominal interest rate	0.5	1.0	0.9			0.7	0.7	0.6	0.6	0.6	0.6			0.4	0.5	
Contribution from real GDP growth	-0.2	1.2	-1.0			-1.0	-1.2	-0.9	-0.8	-1.2	-1.0			-0.6	-0.6	
Contribution from price and exchange rate changes	-3.6	0.8	1.0			...	...	...	...	...	...			...	...
Residual (3-4) 3/	2.1	3.0	-1.9			0.3	-3.3	-4.6	-2.8	-1.8	0.1			1.4	0.1	
<i>of which: exceptional financing</i>	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/	...	...	30.9			31.2	30.9	30.3	29.7	27.9	26.3			19.7	19.7	
In percent of exports	...	...	172.5			172.2	165.1	155.5	147.8	136.1	121.8			86.8	77.2	
PV of PPG external debt	...	...	30.9			31.2	30.9	30.3	29.7	27.9	26.3			19.7	19.7	
In percent of exports	...	...	172.5			172.2	165.1	155.5	147.8	136.1	121.8			86.8	77.2	
In percent of government revenues	...	...	155.8			143.1	148.7	144.0	143.0	133.9	126.3			93.7	93.9	
Debt service-to-exports ratio (in percent)	6.9	8.7	10.2			10.6	11.3	10.5	9.5	15.0	13.5			11.5	5.7	
PPG debt service-to-exports ratio (in percent)	6.9	8.7	10.2			10.6	11.3	10.5	9.5	15.0	13.5			11.5	4.9	
PPG debt service-to-revenue ratio (in percent)	7.3	9.5	9.2			8.8	10.2	9.7	9.2	14.8	14.0			12.4	6.0	
Total gross financing need (Millions of U.S. dollars)	39.4	-3.3	-1.0			16.9	30.9	31.2	22.5	19.2	9.1			11.3	18.1	
Non-interest current account deficit that stabilizes debt ratio	2.2	-2.4	3.6			2.7	6.5	7.5	5.6	5.1	2.9			1.7	2.3	
Key macroeconomic assumptions																
Real GDP growth (in percent)	0.5	-2.7	2.1	0.6	2.6	2.5	2.9	2.0	2.0	3.0	2.4	2.4	1.7	1.7	1.5	
GDP deflator in US dollar terms (change in percent)	10.8	-1.9	-2.1	6.6	8.6	2.4	2.1	2.2	2.2	2.1	1.5	2.1	2.4	2.4	2.3	
Effective interest rate (percent) 5/	1.5	2.2	1.9	1.7	0.6	1.6	1.5	1.5	1.5	1.4	1.4	1.5	1.2	1.3	1.2	
Growth of exports of G&S (US dollar terms, in percent)	26.4	6.0	-17.2	9.5	24.7	6.5	8.4	8.3	7.6	7.0	9.6	7.9	5.1	4.2	5.1	
Growth of imports of G&S (US dollar terms, in percent)	24.5	-0.9	-7.2	8.6	12.3	9.8	7.6	3.7	5.8	3.8	5.4	6.0	4.8	4.1	4.2	
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	55.8	55.4	54.3	54.3	54.3	54.3	54.7	54.3	54.3	54.3	
Government revenues (excluding grants, in percent of GDP)	18.4	19.9	19.8			21.8	20.8	21.0	20.8	20.8	20.8			21.1	21.0	21.0
Aid flows (in Millions of US dollars) 7/	44.2	25.2	41.6			62.9	47.6	35.3	44.3	46.1	46.9			57.8	71.4	
<i>of which: Grants</i>	44.2	25.2	41.6			40.9	29.5	23.0	32.0	33.6	34.2			31.7	44.0	
<i>of which: Concessional loans</i>	0.0	0.0	0.0			22.0	18.1	12.2	12.4	12.5	12.6			26.1	27.5	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			11.4	8.1	5.8	7.3	7.2	7.1			6.7	5.7	6.4
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			84.5	83.0	84.1	87.3	87.6	87.7			79.3	82.4	82.7
Memorandum items:																
Nominal GDP (Millions of US dollars)	463.9	442.9	442.6			464.6	487.9	508.3	529.5	556.7	578.6			685.4	1026.6	
Nominal dollar GDP growth	11.4	-4.5	0.0			5.0	5.0	4.2	4.2	5.1	3.9	4.6	4.1	4.1	3.9	
PV of PPG external debt (in Millions of US dollars)	...	...	138.3			146.2	151.2	154.0	157.3	153.8	150.3			134.6	201.5	
(Pvt-Pvt-1)/GDPt-1 (in percent)	...	...	...			1.8	1.1	0.6	0.6	-0.7	-0.6	0.5	0.1	0.9	0.3	
Gross workers' remittances (Millions of US dollars)	77.2	107.4	102.7			113.4	123.3	131.6	138.0	150.1	163.6			209.7	294.3	
PV of PPG external debt (in percent of GDP + remittances)	...	...	25.0			25.1	24.7	24.1	23.6	21.9	20.5			15.1	15.3	
PV of PPG external debt (in percent of exports + remittances)	...	...	75.1			73.4	70.3	66.7	64.4	58.7	52.8			37.0	36.4	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	4.4			4.5	4.8	4.5	4.1	6.5	5.9			4.9	2.3	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

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

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

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

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

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

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

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

Table 3. Tonga: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2015–2035
(In percent)

	Projections							2035
	2015	2016	2017	2018	2019	2020	2025	
PV of debt-to-GDP+remittances ratio								
Baseline	25	25	24	24	22	21	15	15
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	25	23	20	19	17	16	14	14
A2. New public sector loans on less favorable terms in 2015-2035 2	25	26	26	26	24	23	21	28
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	25	26	26	25	23	22	16	16
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	25	26	29	28	26	25	19	18
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	25	26	26	25	23	22	16	16
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	25	28	29	28	26	25	19	18
B5. Combination of B1-B4 using one-half standard deviation shocks	25	28	31	30	28	26	20	18
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	25	32	31	31	28	26	19	20
PV of debt-to-exports+remittances ratio								
Baseline	73	70	67	64	59	53	37	36
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	73	66	58	53	47	44	37	39
A2. New public sector loans on less favorable terms in 2015-2035 2	73	73	71	70	65	60	51	66
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	73	70	67	64	58	52	37	36
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	73	83	95	92	84	76	56	51
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	73	70	67	64	58	52	37	36
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	73	85	86	76	70	63	46	42
B5. Combination of B1-B4 using one-half standard deviation shocks	73	86	93	82	75	68	50	45
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	73	70	67	64	58	52	37	36
PV of debt-to-revenue ratio								
Baseline	143	149	144	143	134	126	94	94
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	143	137	121	112	102	97	80	77
A2. New public sector loans on less favorable terms in 2015-2035 2	143	154	153	155	148	143	128	169
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	143	157	158	156	145	136	102	102
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	143	159	171	170	159	151	117	107
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	143	155	157	155	144	135	101	101
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	143	164	171	170	159	151	117	107
B5. Combination of B1-B4 using one-half standard deviation shocks	143	168	185	184	173	164	128	116
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	143	211	204	202	188	177	132	132

Table 3. Tonga: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2015–2035 (continued)

(In percent)

Debt service-to-exports+remittances ratio								
Baseline	4	5	4	4	6	6	5	2
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	4	5	4	4	6	5	4	2
A2. New public sector loans on less favorable terms in 2015-2035 2	4	5	5	4	7	6	5	4
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	4	5	4	4	6	6	5	2
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	4	5	5	5	8	7	7	3
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	4	5	4	4	6	6	5	2
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	4	5	5	4	7	6	6	3
B5. Combination of B1-B4 using one-half standard deviation shocks	4	5	5	5	7	6	6	3
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	4	5	4	4	6	6	5	2
Debt service-to-revenue ratio								
Baseline	9	10	10	9	15	14	12	6
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2015-2035 1/	9	10	9	8	13	12	9	4
A2. New public sector loans on less favorable terms in 2015-2035 2	9	10	10	9	15	15	14	10
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	9	11	11	10	16	15	14	7
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	9	10	10	10	15	15	14	7
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	9	11	11	10	16	15	14	6
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	9	10	10	10	15	15	14	7
B5. Combination of B1-B4 using one-half standard deviation shocks	9	11	11	10	16	15	15	8
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	9	14	14	13	21	20	18	8
<i>Memorandum item:</i>								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	52	52	52	52	52	52	52	52

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 4. Tonga: Public Sector Debt Sustainability Framework, Baseline Scenario, 2012–2035
(In percent of GDP, unless otherwise indicated)

	Actual			Average ^{5/}	Standard Deviation ^{5/}	Estimate		Projections						
	2012	2013	2014			2015	2016	2017	2018	2019	2020	2015-20 Average	2025	2035	2021-35 Average
Public sector debt 1/	49.6	52.1	46.6			50.0	50.2	49.2	48.4	46.1	44.3		37.8	41.5
<i>of which: foreign-currency denominated</i>	42.6	46.0	42.9			44.6	45.0	44.2	43.6	41.5	39.9		34.2	39.2
Change in public sector debt	5.2	2.6	-5.5			3.4	0.1	-0.9	-0.8	-2.3	-1.7		0.1	0.2
Identified debt-creating flows	2.3	3.3	-4.1			-0.1	-0.6	-1.0	-1.2	-1.7	-1.5		-1.6	-2.6
Primary deficit	2.0	0.1	-2.1	0.6	3.1	1.0	0.6	0.0	-0.2	-0.4	-0.6	0.1	-0.6	-1.5
Revenue and grants	27.9	25.6	29.2			30.6	26.8	25.5	26.8	26.8	26.7		25.7	25.3
<i>of which: grants</i>	9.5	5.7	9.4			8.8	6.0	4.5	6.0	6.0	5.9		4.6	4.3
Primary (noninterest) expenditure	29.9	25.7	27.1			31.6	27.5	25.6	26.7	26.4	26.1		25.1	23.8
Automatic debt dynamics	0.8	4.2	-2.0			-1.1	-1.2	-1.1	-1.0	-1.3	-0.9		-1.0	-1.2
Contribution from interest rate/growth differential	-0.4	1.8	-0.9			-1.0	-1.4	-1.0	-1.0	-1.5	-1.2		-0.8	-1.0
<i>of which: contribution from average real interest rate</i>	-0.1	0.5	0.2			0.1	0.0	0.0	-0.1	-0.1	-0.2		-0.2	-0.3
<i>of which: contribution from real GDP growth</i>	-0.2	1.4	-1.1			-1.1	-1.4	-1.0	-0.9	-1.4	-1.1		-0.6	-0.7
Contribution from real exchange rate depreciation	1.2	2.3	-1.1			0.0	0.1	-0.1	0.0	0.2	0.3		...	...
Other identified debt-creating flows	-0.6	-0.9	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	-0.6	-0.9	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	3.0	-0.7	-1.4			3.5	0.7	0.1	0.4	-0.6	-0.2		1.6	2.8
Other Sustainability Indicators														
PV of public sector debt	...	...	34.5			36.7	36.2	35.3	34.6	32.4	30.7		23.3	22.0
<i>of which: foreign-currency denominated</i>	...	...	30.9			31.2	30.9	30.3	29.7	27.9	26.3		19.7	19.7
<i>of which: external</i>	...	...	30.9			31.2	30.9	30.3	29.7	27.9	26.3		19.7	19.7
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 2/	4.0	3.2	-0.1			3.8	3.7	2.6	2.8	3.4	3.8		3.3	0.7
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	118.4			119.7	134.7	138.2	128.8	120.8	114.8		90.6	86.9
PV of public sector debt-to-revenue ratio (in percent)	...	...	174.5			168.0	173.8	168.0	166.2	155.8	147.5		110.4	104.6
<i>of which: external 3/</i>	...	...	155.8			143.1	148.7	144.0	143.0	133.9	126.3		93.7	93.9
Debt service-to-revenue and grants ratio (in percent) 4/	7.0	12.1	6.8			9.1	11.5	10.2	11.1	14.5	16.5		15.3	8.0
Debt service-to-revenue ratio (in percent) 4/	10.6	15.5	10.1			12.8	14.9	12.4	14.3	18.7	21.1		18.6	9.6
Primary deficit that stabilizes the debt-to-GDP ratio	-3.2	-2.5	3.4			-2.4	0.5	1.0	0.6	1.9	1.1		-0.7	-1.7
Key macroeconomic and fiscal assumptions														
Real GDP growth (in percent)	0.5	-2.7	2.1	0.6	2.6	2.5	2.9	2.0	2.0	3.0	2.4	2.4	1.7	1.7
Average nominal interest rate on forex debt (in percent)	1.5	2.2	1.9	1.7	0.6	1.6	1.5	1.5	1.5	1.4	1.4	1.5	1.2	2.1
Average real interest rate on domestic debt (in percent)	0.3	2.9	0.7	-1.9	4.7	4.0	3.3	2.6	2.2	1.3	0.8	2.4	1.0	-16.3
Real exchange rate depreciation (in percent, + indicates depreciation)	3.2	5.3	-2.4	-3.6	8.6	-0.1	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	2.5	0.3	2.3	5.1	5.4	0.4	1.2	1.9	2.2	3.1	3.6	2.1	3.5	3.5
Growth of real primary spending (deflated by GDP deflator, in percent)	-9.8	-16.4	7.5	-1.8	6.6	19.7	-10.6	-5.0	6.2	2.0	1.4	2.3	1.5	1.6
Grant element of new external borrowing (in percent)	...	...	...	...	...	55.8	55.4	54.3	54.3	54.3	54.3	54.7	54.3	54.3

Sources: Country authorities; and staff estimates and projections.

1/ [Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net or gross debt is used.]

2/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.

3/ Revenues excluding grants.

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

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

Table 5. Tonga: Sensitivity Analysis for Key Indicators of Public Debt, 2014–2034
(In percent)

	Projections							
	2015	2016	2017	2018	2019	2020	2025	2035
PV of Debt-to-GDP Ratio								
Baseline	37	36	35	35	32	31	23	22
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	37	37	37	37	36	36	33	44
A2. Primary balance is unchanged from 2015	37	36	36	36	34	34	32	40
A3. Permanently lower GDP growth 1/	37	36	36	36	34	33	28	37
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-2017	37	39	40	40	39	38	35	41
B2. Primary balance is at historical average minus one standard deviations in 2016-2017	37	38	39	38	36	34	26	25
B3. Combination of B1-B2 using one half standard deviation shocks	37	38	40	39	38	37	32	36
B4. One-time 30 percent real depreciation in 2016	37	49	47	45	42	40	29	23
B5. 10 percent of GDP increase in other debt-creating flows in 2016	37	42	41	40	38	36	28	26
PV of Debt-to-Revenue Ratio 2/								
Baseline	120	135	138	129	121	115	91	87
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	120	137	143	136	132	130	126	168
A2. Primary balance is unchanged from 2015	120	135	141	134	129	126	123	156
A3. Permanently lower GDP growth 1/	120	136	140	132	125	121	108	145
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-2017	120	142	155	148	143	140	133	161
B2. Primary balance is at historical average minus one standard deviations in 2016-2017	120	141	152	142	134	128	103	97
B3. Combination of B1-B2 using one half standard deviation shocks	120	141	153	145	139	135	123	141
B4. One-time 30 percent real depreciation in 2016	120	181	184	170	158	150	112	90
B5. 10 percent of GDP increase in other debt-creating flows in 2016	120	155	159	148	140	134	109	102
Debt Service-to-Revenue Ratio 2/								
Baseline	9	12	10	11	14	16	15	8
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	9	12	10	12	15	18	18	13
A2. Primary balance is unchanged from 2015	9	12	10	11	15	17	17	12
A3. Permanently lower GDP growth 1/	9	12	10	11	15	17	17	11
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2016-2017	9	12	11	12	16	18	18	13
B2. Primary balance is at historical average minus one standard deviations in 2016-2017	9	12	10	12	15	17	16	9
B3. Combination of B1-B2 using one half standard deviation shocks	9	12	11	12	16	18	17	11
B4. One-time 30 percent real depreciation in 2016	9	13	14	14	20	21	21	13
B5. 10 percent of GDP increase in other debt-creating flows in 2016	9	12	11	12	16	18	16	9

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.

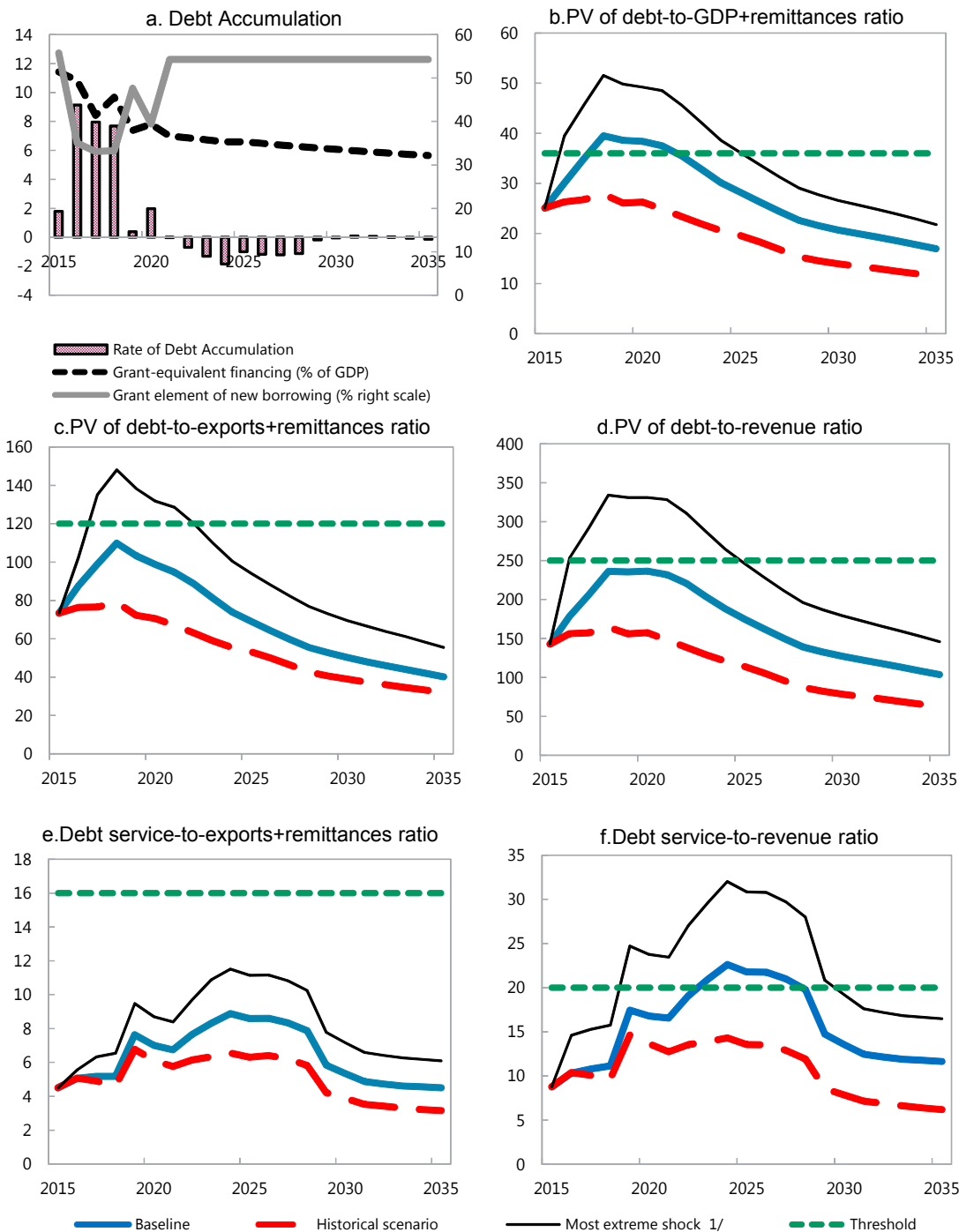
Appendix for the DSA update

The 2019 South Pacific Games: High-Cost Scenario

While the authorities' original plan is fiscally prudent, international experience suggests that cost overrun often occurs. To illustrate the impact of a cost overrun risk associated with hosting the 2019 South Pacific Games, staff simulated a DSA assuming a cost overrun financed by external debt amounts of US\$170 million, with 90 percent of the loan disbursed in the construction period from 2016 to 2018 and the remaining disbursed in the game year.¹ The hypothetical external loans are assumed to be provided on terms and conditions similar to the loans by China's EXIM bank in recent years (2 percent interest rate, 20-year maturity, and 5-year grace period). Two ratios—the present value of external debt to GDP plus remittances and debt service-to-revenue—would exceed their respective thresholds for 3-4 years under the baseline (Figure A1). Under stress tests of this customized scenario, four out of five debt and debt service indicators would exceed the relevant thresholds. In addition, the PV of public debt to GDP also exceeds the threshold under the most extreme shock scenario (Figure A2).

¹ The authorities estimate the cost of hosting the Games at US\$70 million, among which the operating cost (US\$20 million) is envisaged to be covered by the Games revenue and the capital cost (US\$50 million) by donations and franchises. The baseline scenario of the DSA uses the authorities' official costing and financing plan. However, historical experience suggests that cost overruns are common, and could create larger financing need.

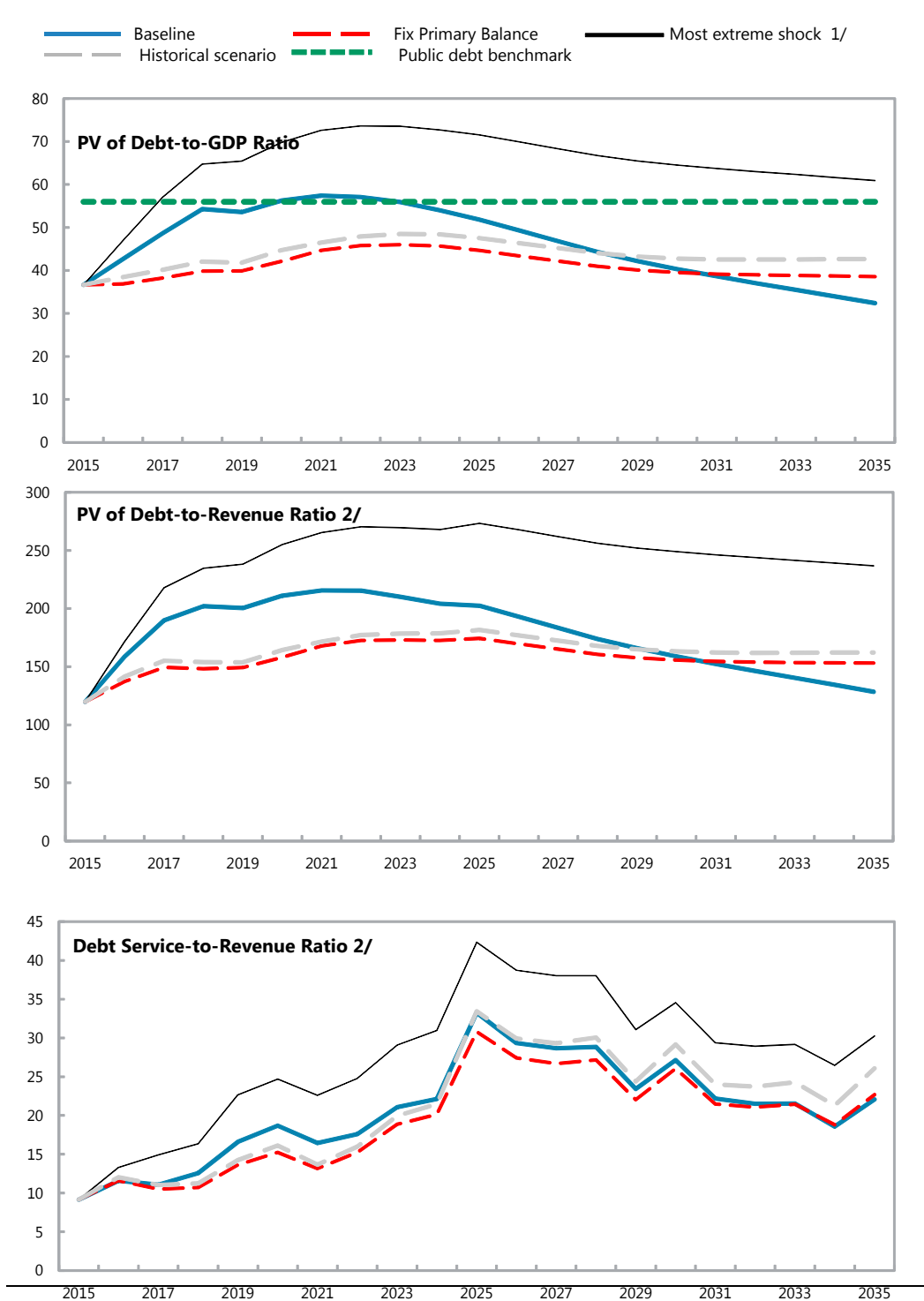
Figure A1. Tonga: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios. 2015-2035 1/



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 2025. In figure b. it corresponds to a One-time depreciation shock; in c. to a Exports shock; in d. to a One-time depreciation shock; in e. to a Exports shock and in figure f. to a One-time depreciation shock

Figure A2. Tonga: Indicators of Public Debt Under Alternative Scenarios, 2015–2035 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 2025.
 2/ Revenues are defined inclusive of grants.



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700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes 2015 Article IV Consultation with Tonga

The Executive Board of the International Monetary Fund (IMF) has concluded the Article IV consultation¹ with Tonga and considered and endorsed the staff appraisal without a meeting on April 24, on a lapse-of-time basis.²

Tonga's economy is estimated to have grown by around 2 percent in fiscal year (FY) 2013/14 (year ending June), driven by agriculture and construction, following a contraction in 2012/13 mainly caused by the completion of a large capital project. Inflation has remained moderate at around 0-3 percent in recent years, reflecting low global food prices and, more recently, a sharp decline in oil prices. The external position has strengthened, following large grants and remittance inflows, which have bolstered international reserves.

Real GDP growth is expected to average 2–3 percent in FY2014/15–FY2019/20. Although the progress of reconstruction in the aftermath of 2014 Cyclone Ian is slower than expected, the coronation scheduled for July 2015 and preparations for the 2019 South Pacific Games will support economic activity over the next few years. Meanwhile, inflation is projected to remain low, reflecting the weak outlook for global commodity prices.

The balance of risks remains weighted to the downside. Spillovers from a protracted period of slower growth in advanced and emerging economies could weigh on Tonga, mainly due to its close economic ties with Australia and New Zealand. On the domestic side, potential cost overruns relating to the Pacific Games could make it necessary to mobilize additional fiscal resources.

¹ Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>.

² The Executive Board takes decisions under its lapse-of-time procedure when the Board agrees that a proposal can be considered without convening formal discussions.

Executive Board Assessment

In concluding the 2015 Article IV consultation with Tonga, Executive Directors endorsed staff's appraisal, as follows:

Tonga's economy has rebounded and the outlook is favorable, while risks remain tilted to the downside. Growth is recovering and is expected to average 2–3 percent during the next five years, mainly supported by construction and tourism on the back of several large events (the coronation and the Pacific Games). Inflation is projected to remain low, reflecting the weak outlook for global commodity prices. International reserves are expected to stay comfortable at around 6 months of prospective imports largely, thanks to grants and remittances. The balance of risks is tilted to the downside. External risks involve spillovers from a protracted period of slower growth in advanced and emerging economies, which could weigh on Tonga, mainly through its close economic ties with Australia and New Zealand. On the domestic side, potential cost overruns related to the Pacific Games continue to pose downside risks.

The authorities should contain fiscal spending pressures in the near-term and build a sound fiscal position to bolster resilience to shocks over the medium term. Near-term fiscal pressures stem mostly from potentially large wage increases for civil servants, which can be contained by more efficient staff allocation in order to moderate the share of the wage bill in recurrent spending over the medium term. Controlling the spending program for the Pacific Games is also important to avoid cost overruns. The adoption of a roadmap for public financial management reform and the debt management strategy would lay the groundwork for a medium-term fiscal framework. Continued efforts to increase tax revenue by broadening the tax base and strengthening tax administration could create more room for priority social spending and public investment.

The current accommodative monetary policy stance is appropriate in view of the weak economy and low inflation, while large excess liquidity calls for better liquidity management to mitigate macro-financial risk. Preserving the current level of international reserves would help ensure external stability, and lowering the inflation reference rate would better anchor inflation expectations over the medium term. Although the presence of excess liquidity does not pose an imminent risk to financial sector soundness in the near term, the authorities should prepare to manage macro-financial risks by improving liquidity management and adopting macro-prudential tools. The progress in improving banks' balance sheets and strengthening the legal framework in the financial sector is welcome.

Structural reforms remain imperative to raising Tonga's potential growth. Progress in updating Tonga's strategic development framework (TSDF II) is welcome. Steadfast implementation of the authorities' reform plan is crucial to make growth more sustainable and inclusive. Implementing key initiatives, such as revising the Foreign Investment Act, would help improve the business climate and promote private sector development.

Implementing TA recommendations are important for successful reforms. Improving the quality of data statistics will also help policy formulation and facilitate private sector decisions. In view of limited resources, better coordination and prioritization of Tonga's prospective TA program is needed. The IMF/Pacific Financial Technical Assistance Center (PFTAC) would continue to provide the bulk of technical assistance, in coordination with other development partners.

Tonga: Selected Economic Indicators, 2009/10–2015/16 1/

	2009/10	2010/11	2011/12	Prel. 2012/13	Est. 2013/14	Proj.	
						2014/15	2015/16
(Annual percent change)							
Output and prices							
Real GDP 2/	4.2	2.0	0.5	-2.7	2.1	2.5	2.9
Consumer prices (period average)	1.7	6.0	3.3	0.7	2.3	0.4	1.2
Consumer prices (end of period)	2.7	7.1	2.3	0.2	1.5	0.6	1.7
GDP deflator	3.5	6.1	2.5	0.3	2.3	0.4	1.2
(In percent of GDP)							
Central government finance							
Total revenue and grants	27.3	26.7	27.9	25.6	29.2	30.6	26.8
Total revenue	20.4	19.8	18.4	19.9	19.8	21.8	20.8
Grants	6.9	6.9	9.5	5.7	9.4	8.8	6.0
Total expenditure and net lending	32.7	34.2	30.7	26.9	28.1	32.5	28.4
Of which: Current expenditure	26.1	23.0	23.9	25.3	26.7	27.8	25.2
Capital expenditure	2.6	9.8	5.7	1.6	1.3	3.5	3.2
Overall balance	-5.4	-7.5	-2.8	-1.3	1.1	-1.8	-1.5
External financing (net)	3.5	8.6	5.2	0.2	-0.7	3.8	2.8
Domestic financing (net)	1.9	-1.1	-2.4	1.0	-0.4	-1.9	-1.3
(Annual percent change)							
Money and credit							
Total liquidity 3/	5.1	3.1	7.0	5.2	7.3	4.0	4.9
Of which: Broad money (M2)	5.6	3.3	7.2	6.1	7.2	4.0	5.0
Domestic credit	-11.5	-12.3	-16.8	-0.5	8.1	3.8	4.3
Of which: Private sector credit	-15.6	-9.9	-5.2	-7.5	0.7	3.0	3.3
(In millions of U.S. dollars)							
Balance of payments							
Exports, f.o.b.	7.9	10.8	17.9	13.8	15.0	15.0	17.3
Imports, f.o.b.	-130.4	-152.6	-179.3	-175.5	-175.6	-195.9	-213.1
Services (net)	-9.2	4.7	-7.7	0.3	1.3	3.3	5.5
Investment income (net)	11.9	12.9	12.1	11.4	4.7	5.4	6.1
Current transfers (net)	96.3	98.6	116.4	117.2	126.6	149.0	147.7
Of which: Remittances	69.5	68.3	77.2	107.4	102.7	113.4	123.3
Current account balance	-23.4	-25.5	-40.7	-8.6	-6.2	-23.3	-36.5
(In percent of GDP)	-6.4	-6.1	-8.8	-1.9	-1.4	-5.0	-7.5
Overall balance	19.8	33.3	19.8	4.1	8.7	8.5	7.1
Gross official foreign reserves							
In millions of U.S. dollars	87.5	120.8	140.6	144.7	153.4	161.8	168.9
(In months of next year's goods and services imports)	5.0	5.6	6.6	7.3	7.0	6.9	6.9
External debt (in percent of GDP)							
External debt	32.2	36.6	42.6	46.0	42.9	44.6	45.0
Debt service ratio	1.3	1.2	1.4	1.8	1.8	1.7	1.7
Exchange rates							
Nominal effective exchange rate (2005=100)	99.7	100.3	106.5	105.4	103.3	...	...
Real effective exchange rate (2005=100)	99.0	101.9	108.1	105.5	103.4	...	...
Memorandum items:							
Remittances (in percent of GDP)	19.0	16.4	16.6	24.3	23.2	24.4	25.3
Tourism (in percent of GDP)	7.1	8.0	8.5	9.8	10.0	10.5	10.9
FDI (in percent of GDP)	3.3	4.9	1.1	3.6	2.6	2.6	2.6
Nominal GDP (millions of T\$)	704.9	762.9	786.2	767.8	802.2	825.4	858.8
Population (thousands)	102.8	103.0	103.3	103.5	103.8	104.1	104.3

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

1/ Fiscal year beginning July.

2/ Including preliminary data.

3/ From the *Banking Survey*, which includes the Tonga Development Bank.