IMF Country Report No. 18/12

TONGA

January 2018

2017 ARTICLE IV CONSULTATION—PRESS RELEASE; AND THE STAFF REPORT FOR TONGA

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2017 Article IV consultation with Tonga, the following documents have been released and are included in this package:

- A **Press Release.**
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on a lapse of time basis, following discussions that ended on October 5, 2017, with the officials of Tonga on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on December 19, 2017.
- An **Informational Annex** prepared by the IMF staff.
- A **Debt Sustainability Analysis** prepared by the staffs of the IMF and the International Development Association.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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January 17, 2018

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Washington, D.C. 20431 USA

IMF Executive Board Concludes 2017 Article IV Consultation with Tonga

On January 17, 2018, the Executive Board of the International Monetary Fund (IMF) concluded the 2017 Article IV consultation[1] with Tonga. The decision was made without a Board meeting.[2] Over recent years, Tonga has enjoyed robust growth and macroeconomic stability. Growth continued to be strong at 2.7 percent in FY2017[3] following 3.4 percent in FY2016, supported by construction, agriculture, tourism, strong remittances, and strong private credit growth. Inflation spiked in FY2017 because of a new import tax and an increase in domestic food prices. The country's external position weakened slightly owing to construction-related imports, with reserves supported by strong remittances and donor aid.

The outlook for the Tongan economy is favorable, despite external headwinds. Real GDP growth is projected at 3.4 percent in FY2018, driven by construction, agriculture, and tourism. Inflation is expected to decline, as the effect of the import tax subsides. The current account balance is projected to record a large deficit in FY2018, due to capital imports related to construction, which would be financed by donor aid through capital account. Public debt is

[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.

[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.

[3] Fiscal year in Tonga runs from July 1 to June 30.

expected to increase slightly as percent of GDP. Reserves are expected to increase in FY2018 owing to strong remittance inflows.

The overall balance of risks is tilted to the downside. Risks from weaker global growth and the potential implementation of inward looking policies could negatively impact Tonga via reduced remittances, donor funds, and tourism. Pressures on correspondent banking relationships may also weigh on Tonga's outlook by increasing the cost of remittances. Domestic risks mainly relate to fiscal sustainability, which may be compromised should public sector employment reforms fail to contain wage growth, or grant disbursements and related infrastructure building be delayed. A potentially large burden on fiscal expenditure could result from costs of future natural disasters, especially if donor intervention falls short. On the upside, a higher-than-expected short-term fiscal expansion may provide a boost to GDP growth.

Executive Board Assessment

Tonga has continued to experience strong economic growth and moderating inflation. Economic growth is projected to remain high in FY2018, slowing to the historic average over the medium term, while inflation is expected to moderate. The authorities have been successful in developing the agriculture and tourism sectors, which retain potential, and growth has been supported largely by construction.

Risks to the outlook are tilted to the downside and stem from external and domestic sources. Risks associated with potentially weaker economic growth and inward looking policies globally may adversely affect the future path of grant financing, private remittances, and revenues from tourism. While the government's infrastructure strategy may provide a short-term boost to growth and increase future growth potential, the government needs to carefully manage its expenditures and avoid fiscal slippage resulting in non-concessional external borrowing.
The external sector is moderately weaker than warranted by fundamentals and desirable policies. The CA balance is below its estimated norm, largely due to Tonga's reliance on grants and reflecting a significant share of imports. The exchange rate is estimated to be in line with fundamentals, with no sign of a deterioration in Tonga's competitiveness. Reserve adequacy has been strong in recent years, but is projected to decline due to increased prospective imports and

loan repayments. A more prudent fiscal policy would also help to bring the external position back in line with fundamentals.

Staff supports more prudent fiscal management, while recognizing the need to build capital stock in Tonga. The introduction of explicit fiscal anchors in the FY2018 Budget Document is welcome. At the same time, expected budget revenue are optimistic, even with the proposed tax revenue reforms. As advised in previous Article IV Consultations, the authorities should contain the large wage bill to ensure that fiscal sustainability is not compromised. In terms of own-financed capital expenditure, the authorities should aim at prioritizing those projects that are more likely to deliver long term returns, including project areas of education, health, and roads, and building resilience to natural disasters. The FX levy should be replaced by a non-distortionary tax and be phased out no later than its sunset clause in FY2020.

In the medium term, the authorities should maintain fiscal sustainability through prudent PFM and fiscal adjustment as needed to secure fiscal space for growth-enhancing spending. To steer the fiscal stance on a more sustainable path, the authorities should target a gradual adjustment of the primary balance to approximately one percent of GDP by FY2022 to maintain the external public debt broadly unchanged. The required adjustment is achievable through several revenue and expenditure measures. PFM should be further strengthened to ensure appropriate medium-term planning, accountability, and budget control and the efficient use of public funds.

The stance of monetary policy is appropriate, and the NRBT should stand ready to adjust should risks emerge. The current stance is supporting credit growth, which is consistent with financial deepening. However, the NRBT should be ready to adjust monetary policy should signs of overheating emerge. The authorities' efforts in modernizing its monetary policy framework through the introduction of a policy rate and amendments of the NRBT Act are commendable. The NRBT should consider using more flexible monetary policy tools in addition to the RRs. Staff welcome the reforms to the NRBT Act and the Banking Act, the latter of which still needs to be finalized to enhance NRBT's supervisory powers. Loss of CBR may become an increasing source of concern, and given the importance of remittances, the potential impact should be minimized through compliance with relevant international standards with regards to the AML/CFT.

Macroprudential policies should be used to address systemic risks to financial stability. The banking sector remains stable and profitable. However, high credit growth merit continued monitoring. Staff encourages the authorities to develop macroprudential policies, such as limits to LTV ratio for property loans, loan diversification principles, and maximum LTD ratio. The NRBT should develop credit monitoring indicators to catch early signs of potential distress. Staff supports ongoing reforms aimed at raising Tonga's growth potential and reducing poverty. In line with the TSDF II, the authorities are appropriately focusing on investing in infrastructure, enabling business climate, enhancing private sector development, developing human capital, and improving access to finance. Bringing the informal economy into the formalized MSMEs would promote inclusiveness and help ensure economic growth benefits the broader population. Staff supports the focus on expanding export market access and increasing the value added of domestic production.

Improving macroeconomic statistics is a priority. Although data are broadly adequate for surveillance, data quality and timeliness affect the formulation of economic policy and assessment of macroeconomic conditions. Staff recognizes recent improvements in some of the datasets, but efforts are needed to improve main macroeconomic datasets including BOP, fiscal accounts, and national accounts statistics. Staff encourages the authorities to resume or initiate timely official reporting of all relevant datasets to the IMF.

At the authorities' suggestion, it is proposed that the next article IV consultation with Tonga be held on the 24-month cycle. Tonga satisfies all relevant criteria to be moved to the 24-month cycle.

Tonga: Selected Economic Indicators, FY2013–FY2019 1/

	FY2013	FY2014	FY2015	FY2016	FY2017 Est.	FY2018 Proj.	FY2019 Proj.
Output and prices (percent change)							
Real GDP 2/	-3.1	2.1	3.7	3.4	2.7	3.4	3.0
Consumer prices (period average)	0.7	2.3	0.1	-0.6	7.2	5.3	2.5
Consumer prices (end of period)	0.2	1.5	0.2	0.2	10.3	2.5	2.5
GDP deflator	0.5	1.0	1.5	1.7	3.1	2.1	2.1
Central government finance (percent of GDP)							
Total Revenue	33.2	37.7	34.9	40.9	44.5	53.5	52.6
Revenue (excluding grants in-kind)	25.1	28.8	28.1	30.6	30.5	32.1	30.3
Grants in-kind	8.1	8.9	6.8	10.3	14.0	21.5	22.3
Total Expenditure	34.5	31.3	37.6	41.3	44.9	55.8	54.5
Expense	26.2	27.8	31.6	32.0	34.1	41.1	39.7
Transactions in Nonfinancial Assets (Net)	8.2	3.4	6.0	9.4	10.8	14.8	14.8
Overall balance	-1.2	6.4	-2.7	-0.4	-0.4	-2.3	-1.9
Net Acquisition of Financial Assets	-0.7	6.0	-1.9	1.8	0.3	1.5	1.6
External financing (net)	0.4	-0.2	-0.4	0.2	0.3	3.6	3.5
Domestic financing (net)	0.2	-0.1	1.2	2.0	0.5	0.2	-0.1
Money and credit (percent change, end of period)							
Total liquidity (M3)	5.2	7.3	9.3	16.7	18.8	11.7	11.3
Of which: Broad money (M2)	6.1	7.2	9.0	15.0	19.1	12.1	11.7
Domestic credit	2.5	7.8	15.4	8.8	5.8	16.6	14.1
Of which: Private sector credit	-2.7	0.7	10.6	18.0	18.9	13.0	12.0
Interest rates (end of period)							
Average deposit rate	2.0	1.9	2.0	2.1	2.3	...	...
Average lending rate	9.4	9.0	8.7	8.7	8.6	...	...
Balance of payments (US$ millions)							
Exports, f.o.b.	14.9	17.9	19.4	24.1	25.3	26.4	27.0
Imports, f.o.b.	-187.4	-187.6	-207.7	-202.8	-235.1	-258.4	-281.2
Services (net)	-17.9	-10.6	-19.4	-9.1	-14.4	-17.3	-21.7
Investment income (net)	11.3	3.2	4.5	2.5	6.8	8.7	11.6
Current transfers (net)	135.3	147.1	137.9	129.7	166.0	190.5	207.5
Of which: Remittances	107.4	102.7	102.2	112.2	117.4	124.3	130.4
Of which: Official grants	25.4	37.8	27.0	33.0	53.1	69.6	80.5
Current account balance	-43.7	-30.0	-65.3	-55.6	-51.3	-50.1	-56.7
(In percent of GDP)	-9.7	-6.8	-15.0	-13.2	-12.0	-11.8	-12.9
Overall balance	2.4	11.2	-16.2	23.9	3.5	15.4	-8.5
Terms of trade (annual percent change)	-2.7	1.5	-3.6	2.0	3.1	-1.8	-0.5
Gross official foreign reserves							
Gross official foreign reserves (US$ millions)	147.6	158.7	142.5	166.4	169.9	185.2	176.7
(In months of imports)	6.9	6.8	6.3	6.3	5.9	5.9	5.5
Debt (percent of GDP)							
Public debt (external and domestic)	49.2	47.1	51.4	51.8	48.0	49.2	50.3
External debt	44.0	41.9	45.2	44.0	41.8	43.2	44.6
Debt service ratio	1.4	1.5	1.6	1.6	1.6	1.5	3.8
Nominal effective exchange rate (2005=100)	105.4	103.3	103.0	98.8	99.1	...	...
Real effective exchange rate (2005=100)	105.5	103.4	101.7	96.4	101.8	...	...
Memorandum items:							
Remittances (percent of GDP)	23.9	23.2	23.5	26.6	27.4	29.4	29.7
Tourism (percent of GDP)	9.9	9.5	11.3	13.0	12.9	15.0	15.3
FDI (percent of GDP)	1.4	1.7	2.4	2.6	2.7	2.8	2.8
Nominal GDP (T$ millions)	779.3	803.7	846.1	889.4	941.8	993.8	1045.1
GDP per capita (T$ thousands)	7.5	7.7	8.1	8.5	9.0	9.5	9.9
Population (thousands)	103.5	103.9	104.1	104.3	104.6	104.8	105.1

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

1/ Fiscal year beginning July.

2/ Including preliminary data.

INTERNATIONAL MONETARY FUND

TONGA

December 19, 2017

STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION

KEY ISSUES

Context. Over recent years, Tonga has enjoyed robust growth and macroeconomic stability, with the construction sector being the main driver of growth. Tonga's reliance on private and official transfers poses sustainability risks, particularly given the economy's vulnerability to external shocks and the potentially high costs of natural disasters.

Outlook. Tonga faces a favorable growth outlook driven by construction, agriculture, and tourism, albeit with risks tilted to the downside. Risks associated with weaker global economic growth and inward looking policies cause uncertainty about the future path of grant financing, private remittances, and revenues from tourism. While the government's infrastructure strategy will provide a short-term boost to growth and enhance future growth potential, the government needs to carefully manage its expenditures and avoid fiscal slippage giving rise to non-concessional external borrowing.

Main policy recommendations:

- Tonga would benefit from a more prudent fiscal stance, notwithstanding the role of public investment in boosting growth and building resilience to natural disasters. The authorities need to prioritize own-financed capital expenditures and contain the large wage bill. Targeting a gradual adjustment of the government primary balance to approximately one percent of GDP by FY2022, through a combination of revenue and expenditure measures, would help ensure debt sustainability.

- The current monetary policy stance is appropriate. It is supporting credit growth, so far with no signs of financial sector vulnerabilities. However, the central bank should stand ready to adjust monetary policy if risks emerge. Macroprudential policies should be used to address systemic risks to financial stability; there is a need to strengthen the monitoring of financial institutions and continue financial sector reforms.

- To raise Tonga's growth potential, continued improvements in the business climate and private sector development are needed. The authorities' focus on expanding export market access and increasing the value added of domestic production is welcome.

Approved By
Odd Per Brekk (APD) and Johannes Wiegand (SPR)

Discussions were held in Nuku'alofa during September 25–October 5, 2017. The team comprised Elena Loukoianova (Head), Giovanni Ugazio (STA), Olena Ftomova (EUR), and Tubagus Feridhanusetyawan (Fiji Resident Representative). Mr. Machmud (OED) participated in most discussions. Mr. Edward (World Bank) and Mr. Moeaki (Asian Development Bank) joined selected meetings. Staff met care-taking Prime Minister Honorable 'Akilisi Pohiva, care-taking Minister of Finance and National Planning Honorable Pohiva Tu'i'onetoa, Governor of the National Reserve Bank of Tonga Dr. Sione Ngongo Kioa, and other senior government officials, as well as development partners and private sector representatives. Irene Zhang and Antoinette Kanyabutembo assisted in the preparation of this report.

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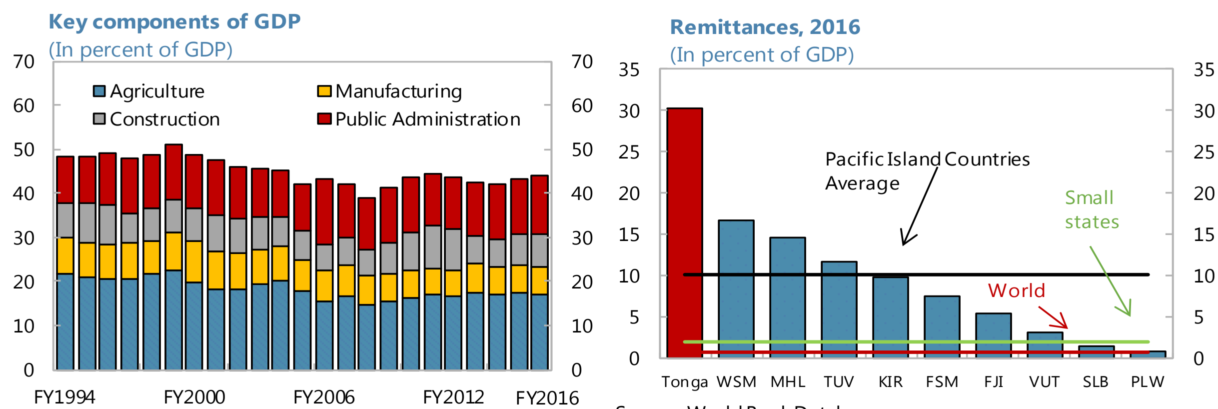
CONTEXT

1. Tonga is a small middle-income economy in the South Pacific, vulnerable to natural disasters. Geographical remoteness, high transportation costs, low diversification and connectivity, a narrow production base, and limited economies of scale place Tonga at a competitive disadvantage. Tonga's economy is highly dependent on remittances flows[1] and donor grants, with agriculture and tourism being the main exports (Figure 1), posing sustainability challenges.



Sources: Tonga Department of Statistics; and IMF staff estimates.
Source: World Bank Database.

2. Political changes in 2017 entailed the Democratic Party (DP) winning most electoral seats in the snap election in November after the dismissal of the government. On August 25, 2017 King Tupou VI dismissed Prime Minister (PM) Pohiva and his cabinet, and dissolved the parliament. The DP led by former PM Pohiva won the majority of parliament electoral seats in the snap elections on November 16.

3. The cancellation of the PGs may impact GDP growth. The Tongan parliament approved in May 2017 the cancellation of Tonga's hosting of the PGs. However, the authorities have so far maintained the pledge to continue the construction of selected sport facilities and secured donor funding to this end of around five percent of GDP over three years, which could provide growth momentum. Therefore, the biggest impact on growth of the PGs cancelation is likely to be lower tourism revenue, rather than less construction. Finally, due to delays in constructions of the PGs facilities, the cancellation occurred at an early stage of infrastructure investment, so that no significant loss will be incurred by the Tongan government.

4. The authorities made generally good progress with past recommendations. Following advice provided in the 2016 Article IV Consultation and technical assistance (TA) provided by MCM, the NRBT has lowered its inflation reference rate and started upgrading its monetary policy framework by introducing new instruments. In terms of fiscal policy, the authorities continued to

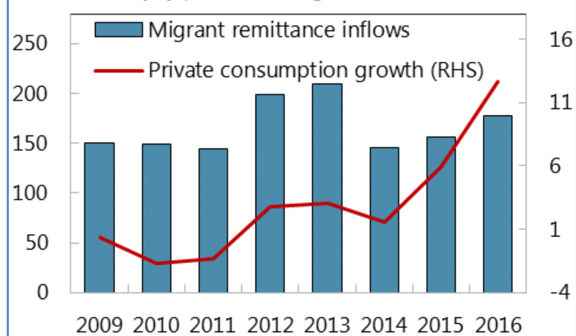
[1] The population has remained stable at around 100,000, despite a high birthrate, reflecting large-scale emigration. Tonga is the recipient of one of the highest levels of remittances as a share of GDP in the world.

make good progress with revenue mobilization, although more needs to be done to reduce current expenditure (particularly the wage bill).

RECENT DEVELOPMENTS

5. **Tonga's economy continued to grow at a strong pace, supported by construction, agriculture, tourism, and exports** (Figure 2). Real GDP growth is estimated at 2.7 percent in FY2017, following 3.4 percent in FY2016. The construction cycle related to the government's infrastructure plan and the building of sports facilities continued to be the main driver of growth. Private consumption growth remained strong supported by a steady inflow of remittances. Exports continued to grow, driven by agriculture and tourism.

Private Consumption and Remmitances Inflow
(US million, yoy percent change)



Sources: Tonga Department of Statistics; WB database; and IMF staff calculations.

6. **Inflation spiked in FY2017 because of an increase in domestic food prices and a new import tax.** Annual CPI inflation stood at 7.2 percent on average in FY2017. To boost tax revenue and target unhealthy consumption, the government imposed a new tax on imported fatty meat and tobacco in July 2016, leading to a large increase of imported inflation to 7.7 percent in FY2017. The domestic component of inflation also stood at a relatively high 5.8 percent in FY2017 due to dry weather.

7. **The external position in FY2017 slightly weakened because of construction-related imports.** The sizeable current account (CA) deficit, of 12 percent of GDP, did not lead to foreign exchange (FX) reserve losses, as a large share of imports was financed by capital grants. Notwithstanding the increase in imports, the strong performance of exports and the large current and capital transfers balances resulted in a positive net international investment position (NIIP), with reserves rising to US$169.9 million (or 5.9 months of imports). The exchange rate of the Tongan Pa'anga (T$) against the U.S. dollar remained broadly unchanged, while the CPI-based REER appreciated owing to the spike in inflation.

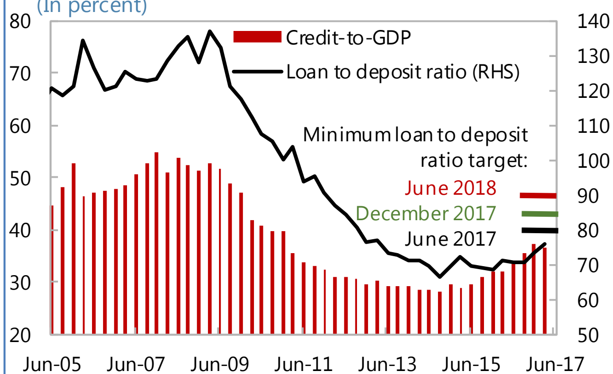
8. **The fiscal balance remained slightly negative due to wage growth and infrastructure spending.** The overall fiscal balance stood at -0.4 percent of GDP over the last two years. In FY2017, tax revenue increased due to higher excise taxes and higher-than-expected revenue from the foreign exchange (FX) levy. However, increases in expenditures, including higher wages and own-financed capital expenditure, more than offset the revenue gains, leading to a fiscal deficit.

9. **Credit growth remained high, and the NRBT increased reserve requirements (RRs).** Despite credit growth of 18.9 percent in FY2017, the level of private sector credit remains low, with credit-to-GDP remaining below the long-term average. Most bank credit in Tonga finances the construction of owner-occupied dwellings (Box 1). To contain excess liquidity in the banking system, the National Reserve Bank of Tonga (NRBT) raised minimum RRs for banks to 10 percent of total

deposits in July 2017. The NRBT has introduced a remuneration rate for RRs set to zero, and introduced a *minimum* target for the loan-to-deposit (LTD) ratio for banks, set currently at 80 percent, in an attempt to channel banking system liquidity to private sector lending and to communicate this policy to the public.

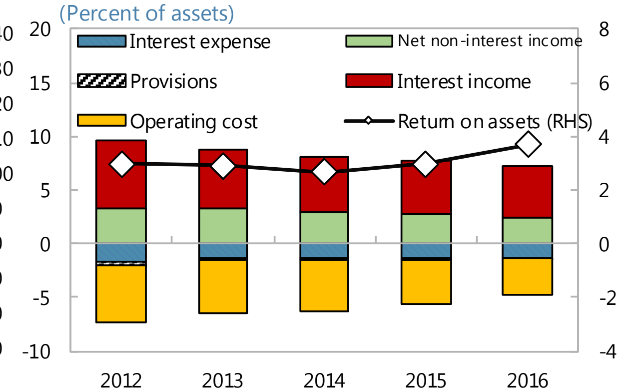
10. The banking system remains well capitalized and profitable, and nonperforming loans (NPLs) have decreased. Notwithstanding the large increase in risk-weighted assets associated with the strong credit growth, the capital ratio remains high. The NPL ratio declined from 6.7 percent in June 2016 to four percent in June 2017, reflecting a decrease in NPLs, driven by a large write-off which occurred in FY2017 and high credit growth.

Credit to GDP and Loan to Deposit Ratio
(In percent)



Sources: NRBT; and IMF staff calculations.

Tongan Banks: Profits and Losses
(Percent of assets)



Sources: NRBT; and IMF staff calculations.

OUTLOOK AND RISKS

11. The macroeconomic outlook remains favorable. For FY2018, GDP growth is projected at 3.4 percent, driven by construction, agriculture, and tourism. Over the medium term, growth is projected to moderate to around two percent. Inflation is expected to decline to 5.3 percent on average in FY2018 and to decline further in the medium-term, as the effect of the import tax subsides. The CA deficit is projected to remain large in FY2018, mainly due to capital imports related to construction. Reserves will decline slightly in the medium term due to large principal loan repayments to China of approximately US$7.9 million per year.

12. The overall balance of risks is tilted to the downside. (Appendix I). Risks from weaker global growth and the potential implementation of inward looking policies could negatively impact Tonga via reduced remittances, donor funds, and tourism. Pressures on correspondent banking relationships (CBR) may also weigh on Tonga's outlook by increasing the cost of remittances. Domestic risks mainly relate to fiscal sustainability, which may be compromised should public sector employment reforms fail to contain wage growth, or grant disbursements and related infrastructure building be delayed. A potentially large burden on fiscal expenditure could result from costs of future natural disasters, especially if donor intervention falls short. In addition, the unexpected parliamentary elections may slow the growth momentum. On the upside, a higher-than-expected short-term fiscal expansion may provide a boost to GDP growth.

13. The risk rating for external debt distress derived from the Debt Sustainability Analysis (DSA) is increased from moderate to high, because of future potential costs of natural disasters. The new classification is due to a change in the treatment of future spending related to natural disasters. The DSA 2017 incorporates effects of natural disasters in the baseline projections with two separate projection horizons.

Authorities' Views

14. The authorities broadly agreed with staff assessment of the economic outlook and downside risks for Tonga, including with the DSA reclassification as "high risk." The NRBT projected slightly higher growth and lower inflation for FY2018-19 compared with staff, as they did not incorporate lower growth due to the cancellation of the PGs. Staff's inflation projections are higher than those of the authorities to account for the comprehensive package of new excises introduced in July 2017. The authorities concurred with staff's assessment of risks, including with regards to fiscal sustainability, and welcomed the incorporation of natural disasters in long-term projections together with the resulting DSA reclassification as "high risk" of external debt distress.

POLICY DISCUSSIONS

Policy discussion focused on measures to boost the country's resilience to shocks, including from climate change and natural disasters, and preserve macrofinancial stability. This would require a sustainable fiscal position, achieved by keeping expenditure in check and building fiscal buffers to minimize the risk of having to borrow externally and to be able to deal with unforeseen events, such as natural disasters. Preserving financial stability should remain a priority, especially considering the rapid credit expansion and with only few monetary policy and macroprudential instruments available. Structural reforms aimed at sustained and inclusive growth should be a central part of the policy strategy.

A. Maintaining Fiscal Sustainability

15. Staff welcomed the first-time introduction of explicit fiscal anchors in the Budget document. The anchors reflect previous commitments (debt ceiling), and (in line with staff recommendations from past Article IV consultations) a ceiling on compensation of employees as a percent of current expenses and domestic revenues. Additionally, the budget includes a target for domestic revenue in percent of GDP, which is based on recent and projected outturns.

	FISCAL ANCHOR	FY2017	Budget FY2018	Projections FY2018
Domestic revenue				
(in percent of GDP)	**> 22**	25.4	29.1	28.2
Compensation of employees				
(in percent of domestic revenue)	**< 53**	57.7	51.3	52.9
(in percent of current expense)	**< 45**	47.5	43.6	43.5
Total external public debt outstanding				
(in percent of GDP)	**< 50**	41.8	42.3	43.2

Sources: Budget Statement 2018, and IMF Staff Projections.

16. The FY2018 Budget is expansionary, and the fiscal position is projected to weaken. The recently approved budget reflects spending pressures from (i) wage increases; (ii) a reform of public sector employment categories; and (iii) the government's infrastructure development strategy. The government is introducing new revenue measures in FY2018 including (i) an increase of excise rates on "sin goods" (alcohol, tobacco, and sugary drinks); (ii) replacing import duties on Non-Communicable Diseases (NCD) related goods[2] with excise taxes; and (iii) a new income tax system. However, the higher revenue does not cover the increase in expenditures, resulting in a fiscal deficit until FY2020.

	Estimate	Budget	Projections		
	FY2017	FY2018	FY2018	FY2019	FY2020
	(In percent of GDP)				
Total Revenue	44.5	54.4	53.5	52.6	51.6
Tax revenue	21.3	24.9	24.0	23.1	23.8
Grants	19.0	25.3	25.3	25.6	23.7
Other Revenue	4.1	4.2	4.2	4.0	4.1
Total Expenditure	44.9	55.8	55.8	54.5	56.0
Expense	34.1	41.0	41.1	39.7	38.2
Wages	13.1	13.7	13.7	12.9	12.4
Use of goods and services	13.0	17.3	17.3	19.0	18.2
Other expense	7.9	10.1	10.1	7.7	7.6
Transactions in Nonfinancial Assets	10.8	14.8	14.8	14.8	17.7
Overall balance	-0.4	-1.3	-2.3	-1.9	-4.4

Sources: Budget Statement 2018; and IMF Staff projections.

17. The budget's revenue projections are optimistic, even with the proposed revenue reforms. (Appendix II). The authorities project a 3.6 percent of GDP increase in tax revenues, stemming from consumption and excise taxes. The increased consumption tax revenue is based on a general increase in consumption and projected improvements in tax collection. Staff takes a more conservative view on consumption tax, taking into account only increases in tax collection that have already been observed in recent months, while not including the possible impact of future tax administrative measures. Although the new income tax is projected as budget neutral and contains a welcome increase in progressiveness, the authorities should consider the appropriateness of raising the minimum taxable income threshold, which leaves 60 percent of employees out of the tax net. For instance, the lower threshold could be linked to the minimum wage. Finally, staff acknowledged the successful raising of T$5 million per annum revenue through the Foreign Exchange transactions tax (FX levy),[3] but recommended that the FX levy be replaced with a non-distortionary tax. However, given the lack of alternatives and the large short-term spending plans, the levy could remain in place until its planned sunset period of FY2020.

18. The authorities need to carefully prioritize own-financed capital expenditure. (Appendix III). Should revenues during FY2018 fall below target, expenditures should be contained in line with realized revenue and absorption capacity, to balance the need for capital investment with keeping the deficit sustainable. In choosing investment projects, the authorities should prioritize those aimed at improving inclusive growth potential and resilience to natural disasters, and stand ready to postpone projects with lower expected long-term returns. The development of sports facilities should continue to focus on developing only necessary infrastructure and be based largely on donor funding, and the authorities should ensure that an assessment of future maintenance costs is factored in the decision to build the facilities. Risks to sustainability of investment projects were outlined by recent findings of Tonga's Auditor General and recent FAD and STA technical

[2] NCD-related goods comprise sugary drinks, fatty meat, and tobacco.

[3] See the 2016 Article IV Staff Report for a description of the FX levy.

assistance (TA), which pointed towards a systematic under-recording of capital expenditure by up to 13 ministries outside the Ministry of Finance and National Planning (MOFNP).

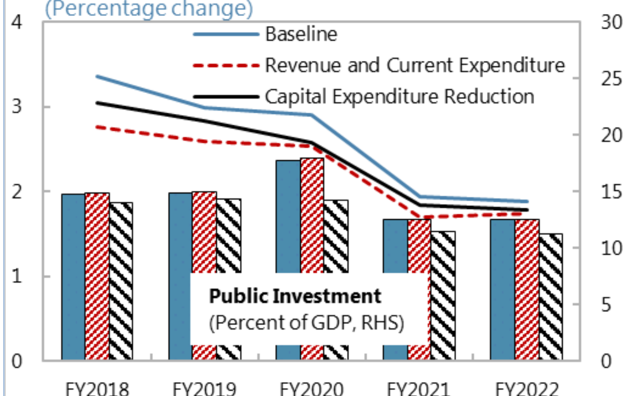
19. To maintain fiscal sustainability in the medium term, prudent public finance management (PFM) and fiscal adjustment are necessary. These could be achieved by a combination of revenue and expenditure measures (Table 7). With limited own resources and high donor-dependency, Tonga needs to balance its expenditure needs with available resources to maintain fiscal sustainability, ensure efficient PFM, and build fiscal buffers. While the current cash buffers (equivalent to 5.3 months of expenses) appear sound, the projected fiscal deficit and resulting financing needs could endanger fiscal sustainability, particularly due to Tonga's exposure to external shocks. The fiscal adjustment should be calibrated to achieve a primary surplus of one percent of GDP in the medium term, aimed at stabilizing public debt at about 40 percent of GDP, which would provide an extra buffer to address the impact of potential future natural disasters.

	Estimates	**Projections**				
	FY2017	**FY2018**	**FY2019**	**FY2020**	**FY2021**	**FY2022**
	(In percent of GDP)					
	Baseline					
Revenue and grants	44.5	53.5	52.6	51.6	49.0	49.5
Total Expenditure	44.9	55.8	54.5	56.0	51.0	50.9
Expense	34.1	41.1	39.7	38.2	38.4	38.4
Transactions in nonfinancial assets	10.8	14.8	14.8	17.7	12.5	12.5
Primary balance	0.4	-1.4	-1.0	-3.6	-1.2	-0.8
Fiscal balance (1)	-0.4	-2.3	-1.9	-4.4	-1.9	-1.4
Total public debt	48.0	49.2	50.3	52.0	51.9	51.3
	Revenue and Current Expenditure					
Primary balance	0.4	-0.8	-0.7	-0.3	0.5	1.0
Fiscal balance (2)	-0.4	-1.7	-1.5	-1.1	-0.2	0.3
Total public debt	48.0	48.9	49.8	48.4	46.8	44.8
	Capital Expenditure Reduction					
Primary balance	0.4	-0.7	-0.5	0.0	0.6	1.1
Fiscal balance	-0.4	-1.5	-1.3	-0.7	-0.2	0.4
Total public debt	48.0	48.6	49.2	47.5	45.8	43.7
(2)-(1) Savings Required[1]		**0.6**	**0.4**	**3.3**	**1.7**	**1.7**

Sources: Tongan authorities; and IMF staff estimates and projections.
1/Measures to close the gap and achieve the primary surplus need to be identified.

20. Staff presented two scenarios to improve fiscal sustainability and achieve necessary adjustments. These scenarios maintain a constant level of public debt at around 40 percent of GDP by achieving primary surplus of one percent of GDP by FY2022. In both, the impact on the GDP growth would be limited, given the low multiplier stemming from a large import component in consumption and Tonga's openness. Fiscal consolidation would help to bring the external sector position in line with fundamentals. In the short term, in addition to implementing tax policy measures, the authorities need to focus on administrative tax measures and current expenditure adjustments. In the medium term, the focus should be placed on growth enhancing measures. The required savings could be achieved as follows:

GDP Growth and Public Investment
(Percentage change)



Sources: IMF staff estimates and projections.

- A "*revenue and current expenditure adjustment*" scenario proposes a combination of revenue measures and reallocation of current expenditure (wages) into capital investment to sustainably finance the investment projects. In this scenario, the growth rate would be reduced in the short run by approximately 0.5 percentage points, but all the needed capital investments are accomplished and would provide future dividends in terms of improved infrastructure, enhancing long-run growth prospects.

- A "*capital expenditure reduction scenario*" reduces capital expenditure to match effectively collected revenue. This scenario would have a lower negative growth impact in the short term, attributable to the large import component of construction and the lower multiplier of capital expenditure. However, in this scenario the lower accumulation of capital stock means that the improvement in long-run growth would be smaller.

Fiscal Savings Measures	
	(In percent of GDP)
Overall Savings	**Up to 7.5**
Total Revenue	up to 1.5
Modify PAYE reform[1]	0.1
Increase excises on NCDs related goods	0.2-0.6
Keep consumption tax rate at 15 percent and improve compliance	0.7
Total Expenditure	Up to 6
Contain civil servants wage increases[2]	1-3
Prioritize Capital Expenditure and/or obtain donor funding	Up to 3

Sources: IMF Staff estimates.
1/Measures to modify PAYE reform include keeping minimum threshold unchanged at T$7400 (or raising it by a smaller amount) and lowering the threshold for the maximum rate to T$50000.
2/Freeze wage increases to bring the wage bill to around 12 percent of GDP, and limit increases to GDP growth thereafter.

Overall, staff expressed a preference for the first scenario, given its positive impact on longer-term growth, but noted that both scenarios are preferable to the baseline.

21. The fiscal adjustment needs to target the underlying sources of the deficits. Savings options include (i) amending the proposed PAYE reform to avoid shrinking the tax base; (ii) further boosting revenue from excises; and (iii) implementing measures to increase consumption tax effectiveness. On the expenditure side, potential measures include (i) bringing the wage bill back to around 12 percent of GDP; and (ii) rationalizing capital spending, possibly replacing own-financing with donor grants for some projects.

Authorities' views

22. The authorities fully concurred with staff assessment of the fiscal stance and risks to sustainability. They acknowledged that revenue projections are optimistic and may not be realized in full. Among expenses, the authorities recognized that wage growth continues to pose the biggest risk to the fiscal outlook, including with the further postponing of the civil servants' employment framework reform. The authorities maintained their view that developing sports and related facilities is a policy priority, with expected positive effects on the population's health and possibly a boost to tourism given the regional importance of rugby. The discussion of possible adjustment strategies was well received, though the authorities did not commit to specific measures. They agreed with the need to continue building fiscal buffers and indicated some of the planned capital expenditure could be postponed or scaled down based on actual revenue collection.

B. External Assessment

23. The external position is moderately weaker compared with fundamentals and desirable policies, and the authorities should maintain adequate reserve buffers (Box 2). The EBA-lite CA model estimates an adjusted CA gap of -1.5 percent of GDP, slightly wider than the EBA-lite threshold of 1 percent of GDP, from a norm of -6.2 percent of GDP. Reserves coverage is projected at 5.9 months of imports in FY2017, slightly below an estimated optimal level of 6.3

months. The projected decline in reserves coverage is due to the higher construction-related imports and the principal repayments of the China EXIM bank loan. The exchange rate remains on the border of being broadly in line with fundamentals, with no sign of a deterioration in Tonga's competitiveness. However, should pressure on reserves emerge, the NRBT should allow the pa'anga to depreciate against the basket of currencies to safeguard external stability.

Authorities' Views

24. The authorities saw the external position as broadly in line with fundamentals. The volatility of Tonga's current account flows makes the model estimation difficult, which may skew the assessment. The authorities agreed with staff's assessment that the current level of reserves is broadly adequate and should be maintained.

C. Improving Monetary Policy and Preserving Financial Stability

25. The NRBT made progress on introducing new monetary policy instruments, which could be developed further. The current monetary policy instruments consist of reserve requirements--the main instrument—and the rate of remuneration on required reserves. In a major step to improve their monetary policy operations and following recent MCM TA, the NRBT introduced the remuneration rate, which is currently set at zero. Following the recent amendment of the NRBT Act, the NRBT can use part of its revaluation reserve to remunerate RRs. While currently not binding, given excess liquidity in the banking system, the RR remuneration rate could become an effective policy rate by functioning as a floor to guide bank lending interest rates.

26. The current monetary policy stance, while accommodative, is still appropriate, as long as no signs of overheating and credit misallocation appear. Inflation has been moderating with the dissipation of the one-off tax increase. The NRBT maintains the stance to support credit growth, while keeping excess liquidity under scrutiny. It should stand ready to adjust its monetary policy stance if risks emerge. A large part of the recent credit growth was supported by the implementation of the government-managed loan-subsidy scheme, lower lending rates, and an increase in construction.

27. Looking ahead, the authorities should consider using more flexible liquidity management tools in addition to RRs, such as the issuance of short-term NRBT securities. This would establish a more effective transmission mechanism that would help the NRBT to complement fiscal policy, particularly during fiscal tightening. Following the recent TA on reserves management, the NRBT is encouraged to prepare legal documentation underpinning its risk framework methodology, and adopt this as a decision of its Executive Board.

28. Introduction of the minimum loan-to-deposits (LTD) ratio may increase banking sector credit risk. Staff emphasized that structural reforms may offer a better approach towards encouraging sound credit extension. While it cannot be enforced (banks cannot be obliged to lend), the ratio may nevertheless provide an incentive for banks to lend to substandard borrowers, which may increase financial stability vulnerabilities. Conversely, banks could stop accepting new cash deposits from individuals to meet the requirements. Staff doubted the appropriateness of the minimum LTD, as demand for credit could be boosted by developing opportunities for the private sector and structural reforms. In this regard, the authorities should continue their efforts to improve access to bank credit, including by (i) developing a domestic credit register; (ii) improving the collateral framework for borrowers; (iii) enhancing insolvency frameworks; and (iv) closely monitoring the provision of credit through the Government Loan Scheme, to ensure creditworthiness of borrowers. The NRBT needs to develop credit growth indicators to monitor risks stemming from potential credit booms.

29. The new Banking Act and other financial institutions legislation should be finalized, and the NRBT's supervisory capacity should be strengthened further. Staff encourages the NRBT to speed up the finalization of the Banking Act, which will enhance regulatory capacity of the NRBT, especially regarding bank liquidation. In addition, the NRBT needs to develop and implement comprehensive supervision and disclosure frameworks covering the entire financial sector, beyond the banking system. While the banking system has a simple structure[4] and is appropriately regulated, the legislation to regulate non-bank financial institutions (NBFIs) is currently being finalized, and little information is available on NBFI intermediation.

30. Macroprudential policies should be used to address systemic risks to financial stability. Given the current credit growth, though from a low level, the authorities should consider introducing macroprudential tools to ensure that vulnerabilities do not build up in the financial sector, such as (i) limits to loan-to-value (LTV) ratio for property loans; (ii) diversification principles to avoid concentration to specific sectors or related borrowers; (iii) maximum LTD ratio; and (iv) maintenance of adequate provision of NPLs.

31. Loss of CBR remains a source of concern. Although remittances have remained broadly unaffected, some Tongan money operators have recently seen their bank accounts closed. The NRBT should ensure that regulations continue to satisfy relevant international standards with regards to anti-money laundering and combating financial terrorism (AML/CFT). The NRBT is preparing for a new AML/CFT assessment expected to be conducted by the Asia Pacific Group on Money Laundering in 2019 and is in the process of strengthening AML/CFT laws and discussing mechanisms to reduce costs of money transfer services.

Authorities' views

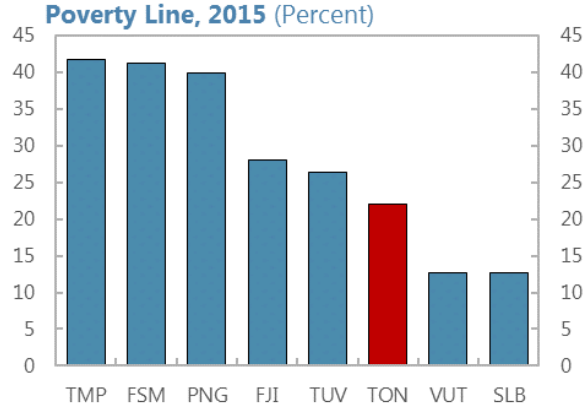
32. The authorities agreed with the need to safeguard financial stability. The NRBT maintains as a priority to support credit growth, as the banking system remains sound with NPLs being low, capital position remaining strong, and liquidity remaining high. However, the authorities welcomed staff's suggestions to develop tools to monitor credit growth and stand ready to tighten monetary policy should overheating pressures emerge. The NRBT welcomed recent TA on reserves management and expressed interest in a follow-up TA on monetary policy and macroprudential measures.

[4] Tonga's banking system is composed of three subsidiaries of foreign-owned banks, and a government-owned development bank.

D. Supporting Inclusive Growth and Building Resilience to Natural Disasters

33. An overarching goal is to raise Tonga's inclusive growth potential and reduce poverty. Limited business opportunities and difficult access to credit constrain private sector development, particularly for micro, small, and medium enterprises (MSMEs). Structural reforms are needed to attract private investments and increase inclusive growth. The government's Tonga Strategic Development Framework (TSDF II) addresses some of these structural issues, particularly on development of resilient infrastructure, enhancing health and education to build human capital, and promoting the diversification of domestic production, notably in agriculture, manufacturing, and tourism.

Population Living Below the National Poverty Line, 2015 (Percent)



Source: ABD database.

34. Private sector development should entail improving the business climate, expanding market access for exports, and increasing the value added of domestic production. The authorities are developing Tonga's National Trade Framework (TNTF) strategy for enhancing export-oriented production and an MSME development strategy. To maximize the returns of private sector development, policies should focus on broadening the production base and increasing the value added, through building manufacturing and packaging capacity in Tonga. This would move part of the value chain onshore, providing skilled jobs opportunities and increasing the value added of exports. To broaden export markets, the strategies should tackle the inclusion of relevant international standards[5] to ensure that products can be exported to partner countries, particularly New Zealand and Australia. Tonga joined the Pacific Agreement on Closer Economic Relations Plus (PACER Plus) in July 2017.

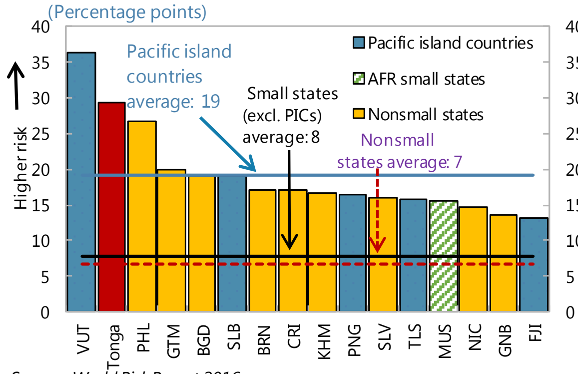
35. A continued focus on bringing the informal economy into the formalized MSMEs would help ensure that economic growth benefits the entire population. Unemployment, particularly in the youth segment (approximately 40 percent in FY2016), remains high with a significant part of the population working in the informal economy and/or relying on remittances. The formalization of informal businesses, such as the introduction of a flat "small-business tax" in FY2015, helps them to grow and improves their access to finance. Formalization of employment would contribute to broadening the tax base and equalizing the tax burden.

36. Continued investment in development and infrastructure to boost resilience to natural disasters is needed (Appendix IV). In the 2016 World Risk Index, Tonga is ranked as the second

[5] For agricultural products, international standards include specific size of the products as well as strict processing and traceability rules, which could be achieved through constructing appropriate pack houses and registering farmers.

most vulnerable country worldwide. The high risk reflects the exposure to natural disasters and a low coping capacity. The risk of external debt distress from the DSA 2017 increases to high, due to the recognition of long-term negative effects of natural disasters on GDP growth and macroeconomic balances. An important feature of the government's infrastructure strategy is the mainstreaming of natural disasters resilience and climate proofing by increasing the standards of newly built buildings, roads, and the electricity grid. Ongoing priority projects include (i) improving opportunities for secondary school completion and facilitating the transition to jobs in the domestic and overseas labor markets for Tongan youth; (ii) upgrading of the road, aviation and maritime transportation systems; and (iii) the introducing of technological advancements in the government and health administrations.

Natural Disaster Risks: World Risk Index, 2016
(Percentage points)



Source: *World Risk Report 2016*.
Note: Risk combines exposure to natural hazards, coping, and adaptive capacities, ranges 0 to 100 with higher number indicating higher risk

Top Priority Projects Financed by Donors FY2018-20

Project Title	Total	WB	ADB	Government	Other
			Financed by		
			($ million)		
Second Inclusive Growth	30	15	15	…	…
Tonga youth/skills project	15	15	…	…	…
Integrated Urban Sector Resilience	35.6	…	12 1/	6.1	17.5 1/
Transport Sector (Bridge over the lagoon)	45	…	20	5	20 2/
Transport/Maritime 3/	27.8	27.8	…	…	…
Digital Health and e-Government	15	5	7.5 4/	…	…

Sources: ADB; and WB.

1/ Includes $5.24 million disaster risk reduction financing ($2.62 million COL, $2.62 million ADF grant), of which $1.34 million was allocated for 2017; $12 million financing from ADB to leverage $10 million in cofinancing and $7.5 million from Australia's Department of Foreign Affairs and Trade.
2/ Cofinancing to be determined.
3/ Three separate projects of different nature ($5 mill. aviation, $5 mill. maritime and $17 mill. roads).
4/ Includes $5 million from the national allocation ($1.25 million COL, $1.25 million ADF grants) and $2.5 million from the concessional resources regional pool ($2.5 million COL, $2.5 million ADF grants).

Authorities' Views

37. **The authorities agreed that promoting the formalization of the economy and improving the business climate are crucial priorities.** They noted that developing the private sector further, including by supporting access to finance of MSME, could raise Tonga's growth potential in the long run. The authorities have included roads and transportation as the main priority, followed by construction and upgrading of education facilities. Finally, they noted that improved resilience to natural disasters includes the incorporation of higher construction standards, when new infrastructure is built.

E. Strengthening Statistical Capacity

38. The statistical capacity in Tonga is weak, due to insufficient resources at the Tonga Department of Statistics (TDS) and MOFNP. The insufficient resources are causing a delay in the absorption of recent TA provided by PFTAC, particularly with regards to external sector and national accounts statistics. Tonga also needs to develop statistics on labor and demographics for effective surveillance. These surveys are particularly important to measure the effectiveness of structural reforms in tackling unemployment, inequality, and bringing a more inclusive growth to the economy.

39. The TDS's development of a country-wide strategy for statistics is welcome. The strategy will tackle two main issues of statistical compilation: (i) the recognition that good statistics are essential for policy making and should be a common goal for all institutions involved in the process (data providers and compilers); and (ii) the reduction of existing barriers to sharing data and information between different institutions, which cause delays in the production and release of macroeconomic statistics. Staff emphasized the need to achieve a broad consensus in the preparation of the strategy, to ensure buy-in and therefore maximize its effectiveness.

40. Bottlenecks in the compilation of external sector statistics need to be addressed. Currently, the compilation of the quarterly and annual balance of payments (BOP) is shared between the NRBT (compiling flows based on the Overseas Transaction Exchange—OET) and the TDS (integrating OET flows with other data sources to compile the comprehensive flows based on the free-on-board—fob principle). The NRBT and TDS need to clarify data sharing arrangements and ensure an efficient and timely compilation of BOP. The authorities should resume the compilation of the International Investment Position (IIP), which stopped in 2013. Staff welcomed the recent recruitment of new compilers for the external sector statistics and encouraged the authorities to take advantage of IMF capacity building opportunities.

41. More resources are required for a robust compilation of fiscal accounts. The compilation of timely and transparent fiscal accounts is required to safeguard the accountability of the use of public resources. The authorities should address the sources of discrepancies, including under recording of capital expenditure financed by donors. Progress on implementing the recommendations of FAD and STA TAs is ongoing and, once the follow up is finalized, the authorities should consider reporting annual government finance statistics (GFS) to the IMF.

Authorities' Views

42. The authorities agreed on the need for Tonga to improve statistical compilation. The TDS supported the expected benefits from the envisaged country-wide long term strategy for statistics, but acknowledged the need to have all involved stakeholders on board for it to be successful. They welcomed the foreseen budget increase for statistical compilation and underlined the urgent need to train newly hired staff. This is due to the large demand for all official statistics related to the sustainable development goals (SDGs) and the TSDF framework where not only the number of indicators and targets is increased (from MDGs to SDGs), but also new thematic areas appear that needs in-depth analytical skills. The MOFNP agreed on the need to further strengthen the compilation of GFS and to address the accountability and transparency issues raised in the latest Auditor General's report.

STAFF APPRAISAL

43. Tonga has continued to experience strong economic growth and moderating inflation. Economic growth is projected to remain high in FY2018, slowing to the historic average over the medium term, while inflation is expected to moderate. The authorities have been successful in developing the agriculture and tourism sectors, which retain potential, and growth has been supported largely by construction.

44. Risks to the outlook are tilted to the downside and stem from external and domestic sources. Risks associated with potentially weaker economic growth and inward looking policies globally may adversely affect the future path of grant financing, private remittances, and revenues from tourism. While the government's infrastructure strategy may provide a short-term boost to growth and increase future growth potential, the government needs to carefully manage its expenditures and avoid fiscal slippage resulting in non-concessional external borrowing.

45. The external sector is moderately weaker than warranted by fundamentals and desirable policies. The CA balance is below its estimated norm, largely due to Tonga's reliance on grants and reflecting a significant share of imports. The exchange rate is estimated to be in line with fundamentals, with no sign of a deterioration in Tonga's competitiveness. Reserve adequacy has been strong in recent years, but is projected to decline due to increased prospective imports and loan repayments. A more prudent fiscal policy would also help to bring the external position back in line with fundamentals.

46. Staff supports more prudent fiscal management, while recognizing the need to build capital stock in Tonga. The introduction of explicit fiscal anchors in the FY2018 Budget Document is welcome. At the same time, expected budget revenue are optimistic, even with the proposed tax revenue reforms. As advised in previous Article IV Consultations, the authorities should contain the large wage bill to ensure that fiscal sustainability is not compromised. In terms of own-financed capital expenditure, the authorities should aim at prioritizing those projects that are more likely to deliver long term returns, including project areas of education, health, and roads, and building resilience to natural disasters. The FX levy should be replaced by a non-distortionary tax and be phased out no later than its sunset clause in FY2020.

47. In the medium term, the authorities should maintain fiscal sustainability through prudent PFM and fiscal adjustment as needed to secure fiscal space for growth-enhancing spending. To steer the fiscal stance on a more sustainable path, the authorities should target a gradual adjustment of the primary balance to approximately one percent of GDP by FY2022 to maintain the external public debt broadly unchanged. The required adjustment is achievable through several revenue and expenditure measures. PFM should be further strengthened to ensure appropriate medium-term planning, accountability, and budget control and the efficient use of public funds.

48. **The stance of monetary policy is appropriate, and the NRBT should stand ready to adjust should risks emerge.** The current stance is supporting credit growth, which is consistent with financial deepening. However, the NRBT should be ready to adjust monetary policy should signs of overheating emerge. The authorities' efforts in modernizing its monetary policy framework through the introduction of a policy rate and amendments of the NRBT Act are commendable. The NRBT should consider using more flexible monetary policy tools in addition to the RRs. Staff welcome the reforms to the NRBT Act and the Banking Act, the latter of which still needs to be finalized to enhance NRBT's supervisory powers. Loss of CBR may become an increasing source of concern, and given the importance of remittances, the potential impact should be minimized through compliance with relevant international standards with regards to the AML/CFT.

49. **Macroprudential policies should be used to address systemic risks to financial stability.** The banking sector remains stable and profitable. However, high credit growth merit continued monitoring. Staff encourages the authorities to develop macroprudential policies, such as limits to LTV ratio for property loans, loan diversification principles, and maximum LTD ratio. The NRBT should develop credit monitoring indicators to catch early signs of potential distress.

50. **Staff supports ongoing reforms aimed at raising Tonga's growth potential and reducing poverty.** In line with the TSDF II, the authorities are appropriately focusing on investing in infrastructure, enabling business climate, enhancing private sector development, developing human capital, and improving access to finance. Bringing the informal economy into the formalized MSMEs would promote inclusiveness and help ensure economic growth benefits the broader population. Staff supports the focus on expanding export market access and increasing the value added of domestic production.

51. **Improving macroeconomic statistics is a priority.** Although data are broadly adequate for surveillance, data quality and timeliness affect the formulation of economic policy and assessment of macroeconomic conditions. Staff recognizes recent improvements in some of the datasets, but efforts are needed to improve main macroeconomic datasets including BOP, fiscal accounts, and national accounts statistics. Staff encourages the authorities to resume or initiate timely official reporting of all relevant datasets to the IMF.

52. **At the authorities' suggestion, it is proposed that the next article IV consultation with Tonga be held on the 24-month cycle.** Tonga satisfies all relevant criteria to be moved to the 24-month cycle.

Box 1. Tonga's Housing Sector[1]

Housing credit continues to rise supported by lower interest rates and economic growth.

A housing bubble is unlikely to develop. Tonga has a rigid land tenure system with lengthy land registration. The secondary market for housing is very small and slow, with approximately 10 house sale transactions per each year. Most bank credit finances construction of owner-occupied dwellings and housing for personal use rather than for investment. The lending to households is collateralized, where land is the only asset that is qualified as collateral by banks. The limited time of land use[2] depreciates its value as collateral over time.

Housing credit continues to rise supported by (i) low lending rates for housing loans; (ii) revision of the Land Act; and (iii) other initiatives.[3] Higher payments for import of construction materials driven partially by removal of custom duty on construction materials also contributed to the increase of housing credit.

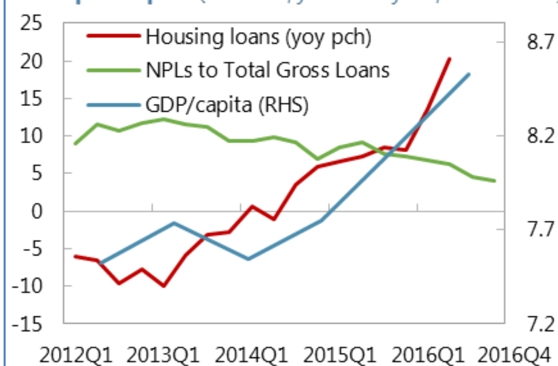
The household credit quality is not a clear concern. Although housing credit is growing rapidly, there are no signs of weakening ability of households to service the debt. All loans are salary-based, where loan payments are deducted directly from the salaries. The remittances continue to increase, and consumer confidence and demand are also on the rise. On the supply side, the ratio NPLs continue to decline. In FY2017, the value of collateral held against the delinquent loans reported by banks was at T$40.5 million compared to total NPLs of T$16.9 million, which indicates that banks hold sufficient collateral to cover any shortfall in loan-loss provisions.[4]

Total Remittances
(In millions of Paanga)

	FY2015	FY2016
Private Transfer	186.3	235.2
Compensation of Employees	14.8	17.5
Private Capital Transfers	0.9	1.6
Social Benefits	0.4	1.9
Total	202.4	256.2

Source: NRBT.

Housing Loans, Non-performing Loans and GDP per Capita (Percent, year-on-year, thousands)



Sources: NRBT; Tonga Department of Statistics; and IMF staff calculations.

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[1] Prepared by Olena Ftomova.

[2] According to the "Land Act" the lease term shall not exceed 50 years and shall be renewable upon such conditions as to rent.

[3] In August 2015 TDB introduced a new loan, which offers 5 percent interest rate for new home loans during the first 2 years. In July 2016, the Retirement Fund Board introduced a home improvement loan facility which contributed to the annual growth of personal loans from nonbank financial institutions.

[4] "Budget Statement 2018," MFNP, Tonga.

Box 2. Tonga: External Sector Assessment[1]

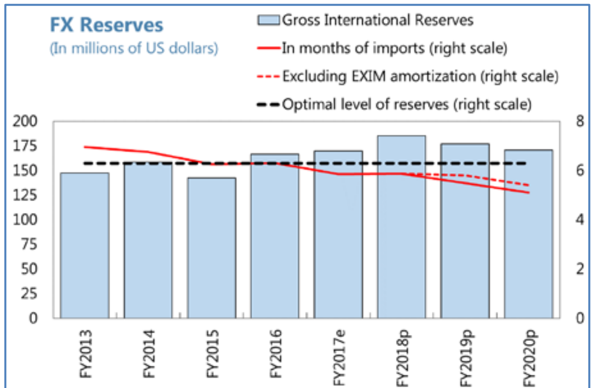
The external sector position is moderately weaker compared with fundamentals and desirable policies.

External balance assessment.[2] The EBA-lite assessment, based on the CA and external sustainability (ES) approaches, estimates an adjusted current account gap of -1.5 percent (CA) and 2.1 percent (ES), respectively. Given Tonga's reliance on grants, the CA deficit is adjusted to reflect a significant share of imports (5.5 percent of GDP in 2016) financed by capital grants, which are insensitive to changes in exchange rates. Therefore, after adjusting the CA for capital grant related imports and notwithstanding the inherent volatility of Tonga's BOP data, the external sector position is moderately weaker compared with fundamentals. The CA model is used for the assessment, because external sustainability is not at risk in the baseline and the ES model estimates are affected by large and volatile transactions related to transfers.

External Balance Assessment	CA model	ES model
CA-Actual	**-13.2%**	**-13.2%**
CA (Adjusted)	-7.7%	-7.7%
CA-Norm	**-6.2%**	**-9.8%**
Elasticity	-0.8	-0.8
CA-Gap (Adjusted)	-1.5%	2.1%
o/w policy gap	-0.1%	
REER Gap (Adjusted)	1.9%	-2.7%

Source: IMF Staff Estimates.

FX reserves. Tonga's gross FX reserves stood at US$169.9 million in FY2017 boosted by grants and remittances inflows. Tonga's reserves coverage remained at a comfortable level of 6–7 months of prospective imports in FY2013–16, well above the NRBT's target of 3–4 months. However, coverage is projected to gradually decline, approaching around 5 months of prospective imports by FY2020, due to strong projected imports and large principal repayments of external debt starting in FY2018.



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

Reserves adequacy. When measured against its relatively high vulnerability to external shocks, Tonga's level of foreign exchange (FX) reserves should be maintained between 6 and 7 months of prospective imports. The reserves template estimates an optimal level of reserves, comparing costs and benefits of holding reserves. The model for Tonga is calibrated using a higher-than-average risk of adverse external shock, to reflect both the vulnerability to natural disasters and the large current account deficit norm. Higher reconstruction spending or a shortfall in transfers could lead to a rapid decline in FX reserves and, therefore, a higher buffer is required to ensure external stability.

FX Reserves adequacy metrics	FY2017
Actual Reserves (months of prospective imports)	5.9
Optimal level from reserves template	6.3
Broad Money coverage	136%

Source: IMF Staff Estimates.

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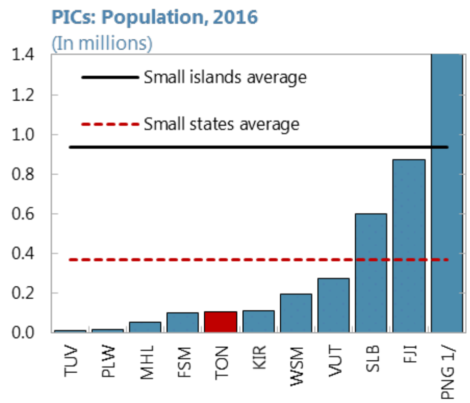
[1] Prepared by Giovanni Ugazio.

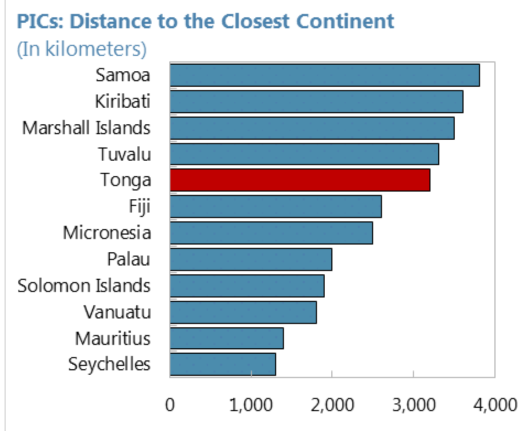
[2] See *Methodological Note on EBA-Lite*. The EBA lite is calculated for 2016 due to data availability. The rest of the assessment refers to FY2017. Fiscal years in Tonga end in June. The EBA lite for Tonga cannot be calculated using the REER model due to data limitations.

Figure 1. Tonga: Stylized Facts

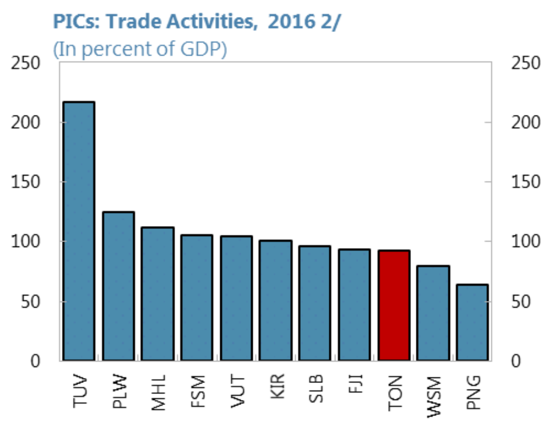
As a small Pacific island country, ...



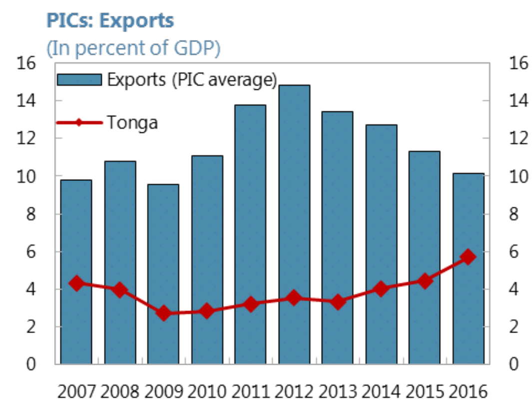
...Tonga faces geographical challenges.



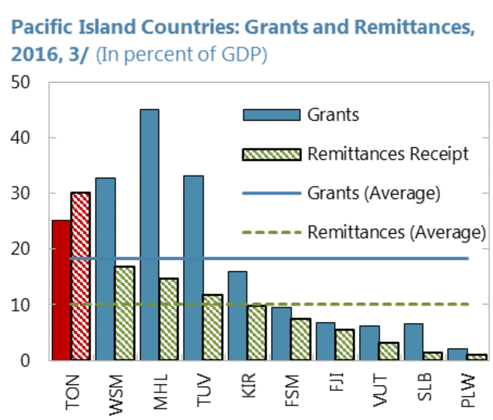
Though an open economy, Tonga has less trade activities compared to peer countries...



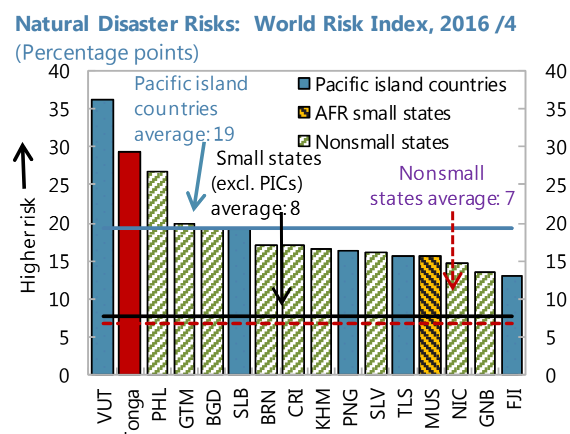
...and is constrained by a narrow export base.



Tonga relies on private remittances and donor grants...



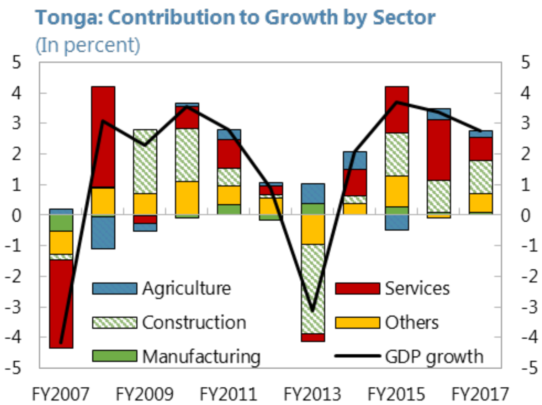
...and is vulnerable to large natural disasters.



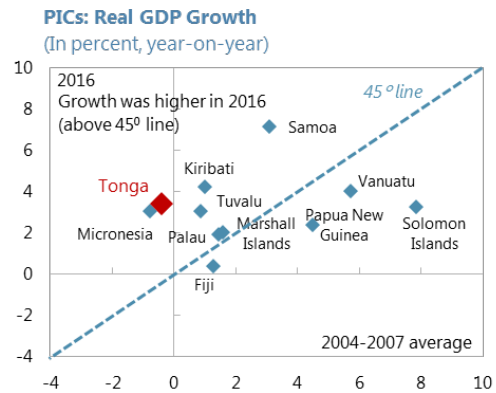
Sources: IMF WEO database; South Pacific Applied Geoscience Commission; World Bank Database; Tongan authorities; 2016 World Risk Report; and IMF staff estimates.
1/ PNG - is on right hand scale.
2/ Export and import of goods and services plus remittances.
3/ Grants exclude allocations in kind.
4/ Risk combines exposure to natural hazards, coping, and adaptive capacities, ranges 0 to 100 with higher number indicating higher risk.

Figure 2. Tonga: Recent Economic Developments

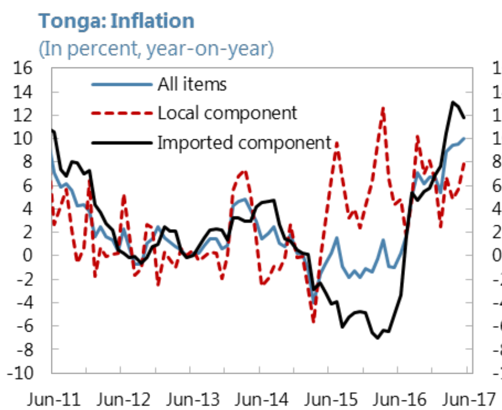
GDP growth was robust in recent years...



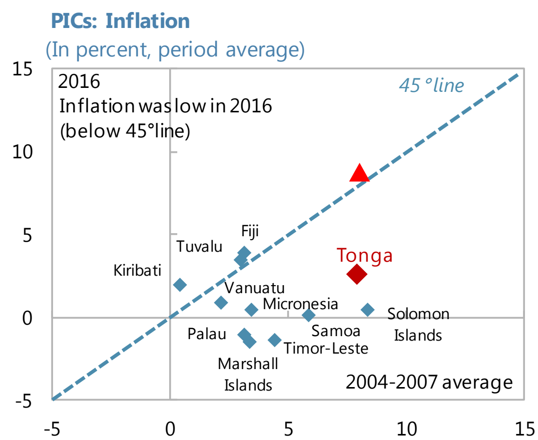
...stronger than many peer countries.



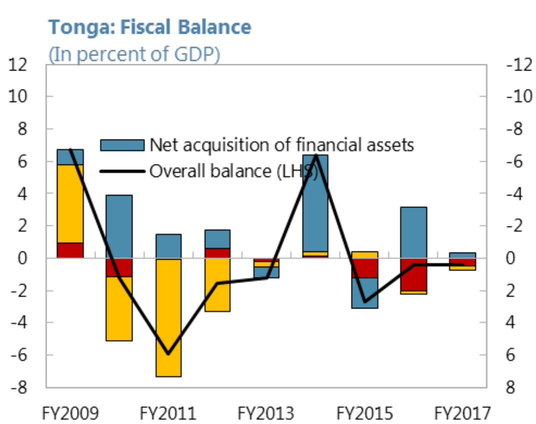
Headline inflation spiked in FY2017, due to the dry weather and the introduction of import taxes on unhealthy goods...



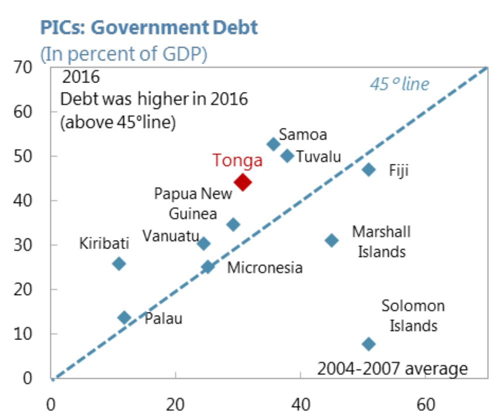
...well above regional trends.



The fiscal balance has been volatile in the past few years...



...and total government debt remains high.

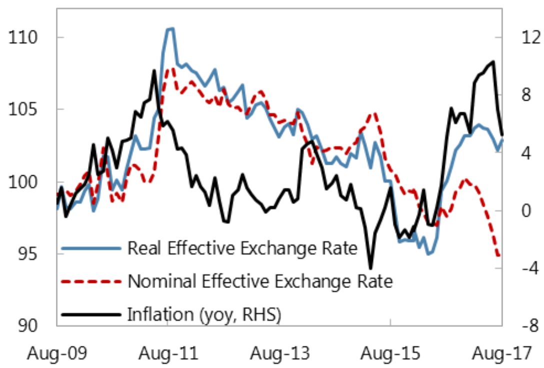


Sources: Tongan authorities; and IMF staff estimates.

Figure 3. Tonga: External and Monetary Developments

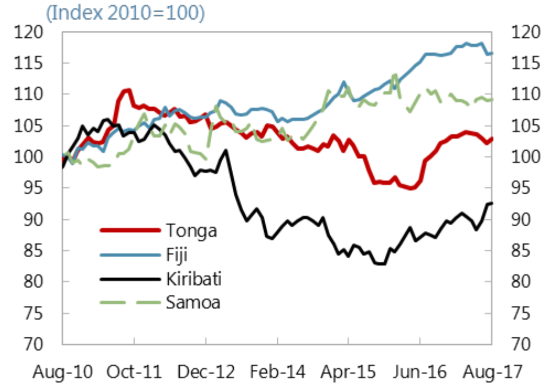
Real effective exchange rate has recently appreciated…

Tonga: Effective Exchange Rates
(Index 2010=100)



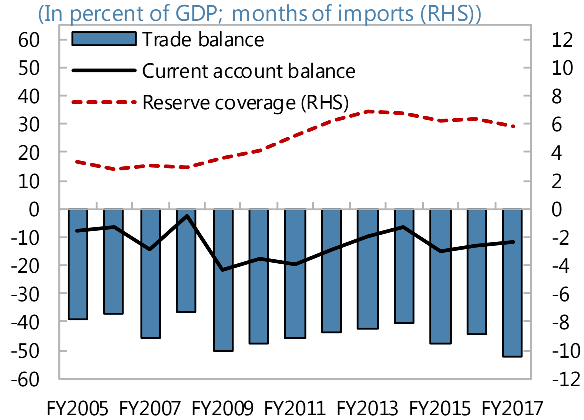
…but remained less volatile than in peer countries.

PICs: Real Effective Exchange Rates
(Index 2010=100)



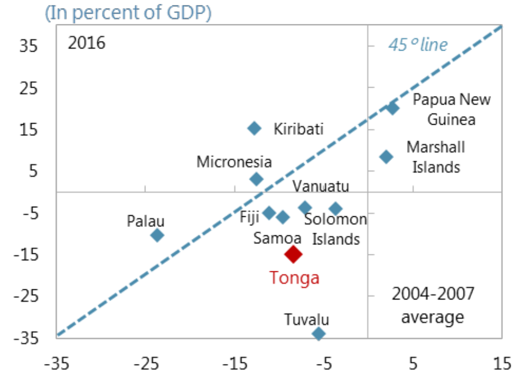
Reserves coverage remained high, despite the large current account deficit…

Tonga: Balance of Payments
(In percent of GDP; months of imports (RHS))



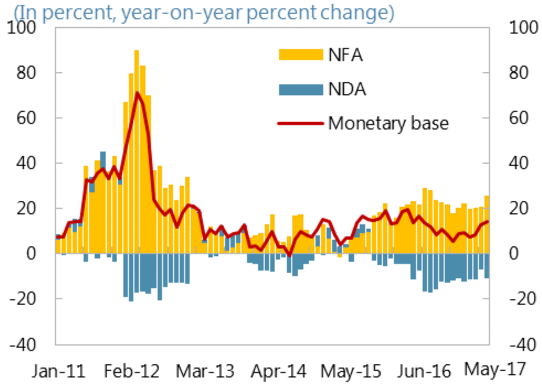
…that are among the largest in the region.

PICs: Current Account Balance
(In percent of GDP)



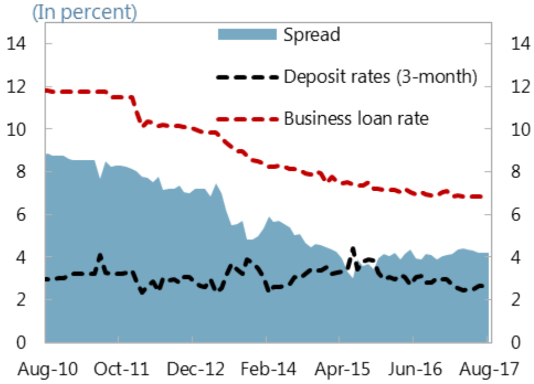
Monetary policy stance remained accommodative…

Tonga: Monetary Base
(In percent, year-on-year percent change)



…stimulating credit growth and leading to narrower interest margins.

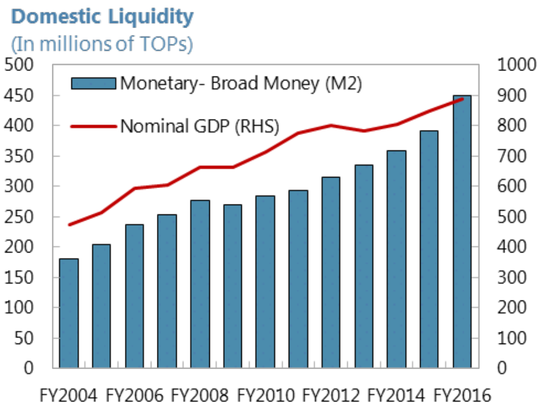
Tonga: Interest Rates
(In percent)



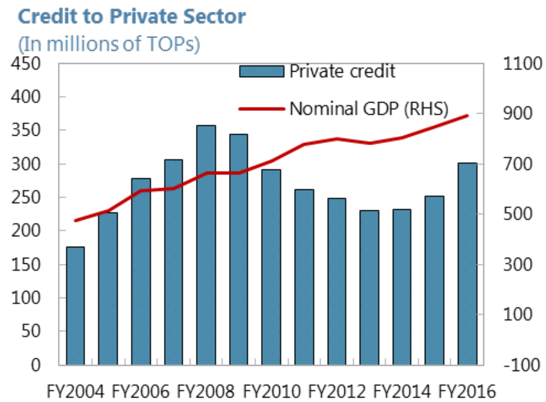
Sources: Tongan authorities; IMF Information Notice System; IMF Integrated Monetary Database; and IMF staff estimates.

Figure 4. Tonga: Financial Intermediation

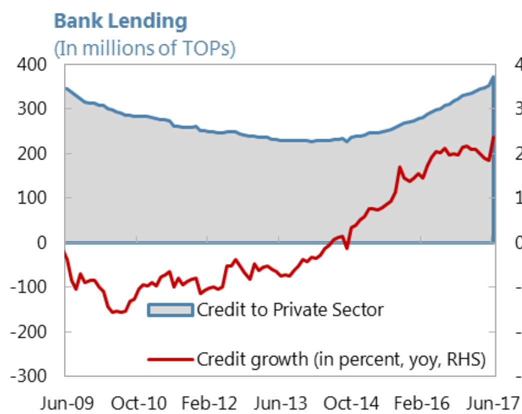
Domestic liquidity has grown in tandem with nominal GDP…



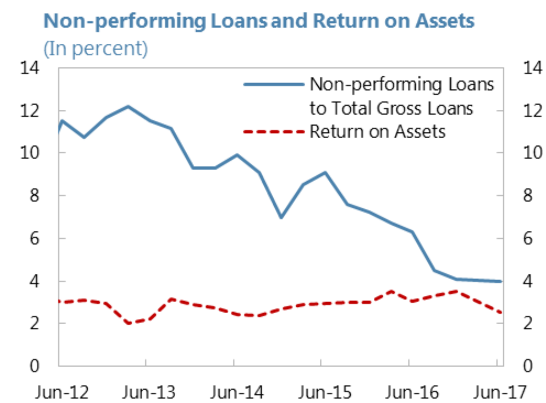
…while credit to private sector started growing faster only recently.



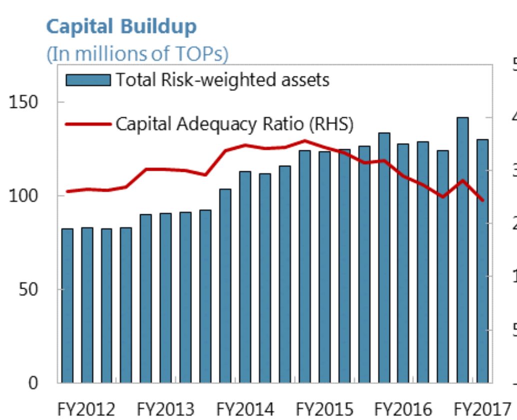
Credit has been expanding in the last few years, …



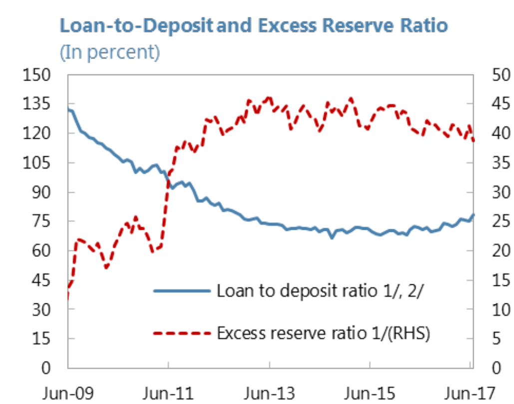
…asset quality indicators improved substantially, …



…bank capital ratios remain high, …



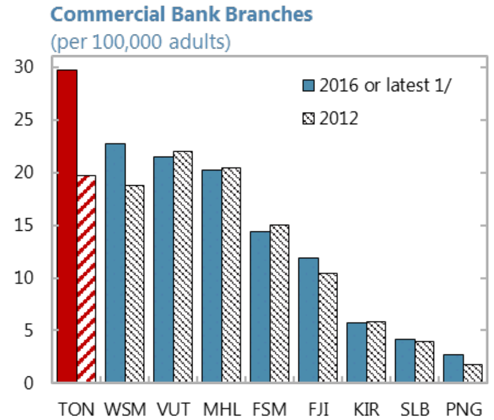
…suggesting some space for banks to expand credit.



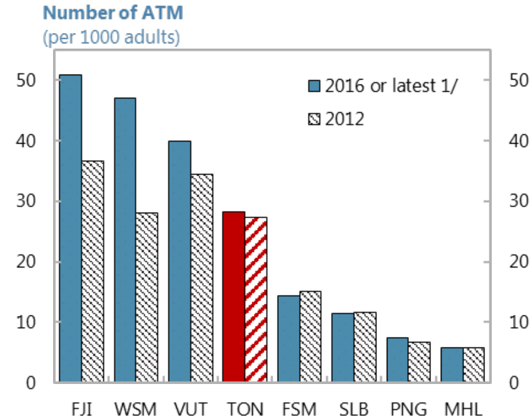
Source: Tongan authorities, IMF Integrated Monetary Database; and IMF staff estimates.
1/ Ratio to non-government deposits.
2/ Credit to private sector by the banks.

Figure 5. Tonga: Financial Access

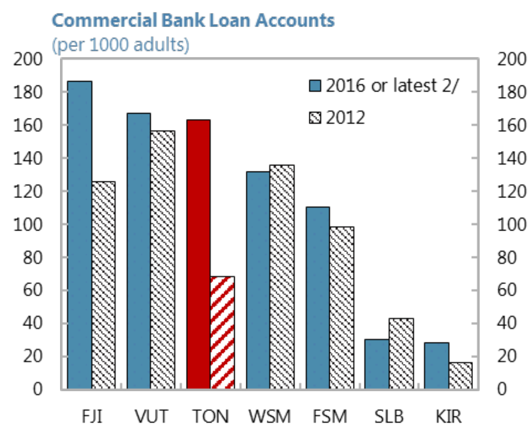
Financial access is high compared with other PICs. Number of bank branches is large…,…



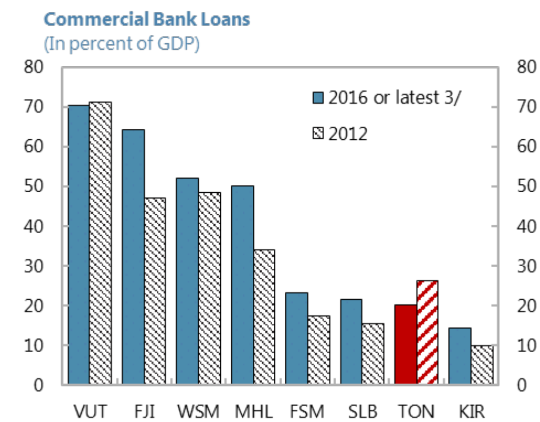
…but ratio of ATM to adults is average, …



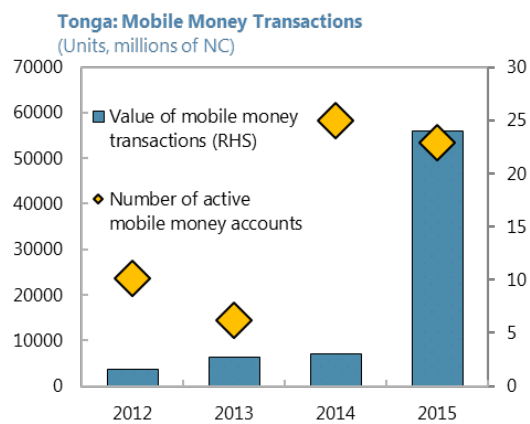
…so is the number of bank loan accounts, …



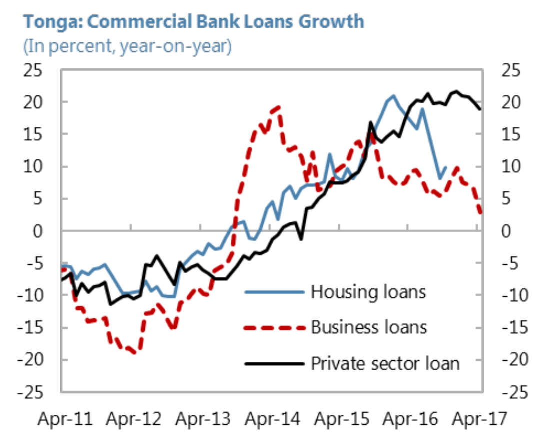
…while the value of loans is quite low.



Tonga is experiencing high growth of mobile money transactions…



…and of housing loans.



Sources: IMF FAS database; Tongan authorities, and IMF staff estimates.
1/ TON, VUT, PNG - 2015 data, KIR - 2013 data.
2/ TON - 2015 data, KIR - 2013 data, VUT - 2014-2015 data.
3/ TON, VUT, MHL - 2015 data, KIR - 2013 data.

Table 1. Tonga: Selected Economic Indicators, FY2013–19 1/

Nominal GDP FY2016: US$422.3 million
Population (2014): 103.9 thousands
GDP per capita FY2016: US$4059
Major exports: root crops, vanilla, squash, fish
Quota: SDR 13.8 million

					Estimates	Projections	
	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
				(Annual percent change)			
Output and prices							
Real GDP 2/	-3.1	2.1	3.7	3.4	2.7	3.4	3.0
Consumer prices (period average)	0.7	2.3	0.1	-0.6	7.2	5.3	2.5
Consumer prices (end of period)	0.2	1.5	0.2	0.2	10.3	2.5	2.5
GDP deflator	0.5	1.0	1.5	1.7	3.1	2.1	2.1
				(In percent of GDP)			
Central government finance							
Total Revenue	33.2	37.7	34.9	40.9	44.5	53.5	52.6
Revenue (excluding grants in-kind)	25.1	28.8	28.1	30.6	30.5	32.1	30.3
Grants in-kind	8.1	8.9	6.8	10.3	14.0	21.5	22.3
Total Expenditure	34.5	31.3	37.6	41.3	44.9	55.8	54.5
Expense	26.2	27.8	31.6	32.0	34.1	41.1	39.7
Transactions in Nonfinancial Assets (Net)	8.2	3.4	6.0	9.4	10.8	14.8	14.8
Overall balance	-1.2	6.4	-2.7	-0.4	-0.4	-2.3	-1.9
Net Acquisition of Financial Assets	-0.7	6.0	-1.9	1.8	0.3	1.5	1.6
External financing (net)	0.4	-0.2	-0.4	0.2	0.3	3.6	3.5
Domestic financing (net)	0.2	-0.1	1.2	2.0	0.5	0.2	-0.1
				(Annual percent change)			
Money and credit							
Total liquidity (M3)	5.2	7.3	9.3	16.7	18.8	11.7	11.3
Of which: Broad money (M2)	6.1	7.2	9.0	15.0	19.1	12.1	11.7
Domestic credit	2.5	7.8	15.4	8.8	5.8	16.6	14.1
Of which: Private sector credit	-2.7	0.7	10.6	18.0	18.9	13.0	12.0
Interest rates (end of period)							
Average deposit rate	2.0	1.9	2.0	2.1	2.3	...	...
Average lending rate	9.4	9.0	8.7	8.7	8.6	...	...
				(In millions of U.S. dollars)			
Balance of payments							
Exports, f.o.b.	14.9	17.9	19.4	24.1	25.3	26.4	27.0
Imports, f.o.b.	-187.4	-187.6	-207.7	-202.8	-235.1	-258.4	-281.2
Services (net)	-17.9	-10.6	-19.4	-9.1	-14.4	-17.3	-21.7
Investment income (net)	11.3	3.2	4.5	2.5	6.8	8.7	11.6
Current transfers (net)	135.3	147.1	137.9	129.7	166.0	190.5	207.5
Of which: Remittances	107.4	102.7	102.2	112.2	117.4	124.3	130.4
Of which: Official grants	25.4	37.8	27.0	33.0	53.1	69.6	80.5
Current account balance	-43.7	-30.0	-65.3	-55.6	-51.3	-50.1	-56.7
(In percent of GDP)	-9.7	-6.8	-15.0	-13.2	-12.0	-11.8	-12.9
Overall balance	2.4	11.2	-16.2	23.9	3.5	15.4	-8.5
Terms of trade (annual percent change)	-2.7	1.5	-3.6	2.0	3.1	-1.8	-0.5
Gross official foreign reserves							
In millions of U.S. dollars	147.6	158.7	142.5	166.4	169.9	185.2	176.7
(In months of next year's goods and services imports)	6.9	6.8	6.3	6.3	5.9	5.9	5.5
Debt (in percent of GDP)							
Public debt (external and domestic)	49.2	47.1	51.4	51.8	48.0	49.2	50.3
External debt	44.0	41.9	45.2	44.0	41.8	43.2	44.6
Debt service ratio	1.4	1.5	1.6	1.6	1.6	1.5	3.8
Exchange rates							
Nominal effective exchange rate (2005=100)	105.4	103.3	103.0	98.8	99.1	...	...
Real effective exchange rate (2005=100)	105.5	103.4	101.7	96.4	101.8	...	...
Memorandum items:							
Remittances (in percent of GDP)	23.9	23.2	23.5	26.6	27.4	29.4	29.7
Tourism (in percent of GDP)	9.9	9.5	11.3	13.0	12.9	15.0	15.3
FDI (in percent of GDP)	1.4	1.7	2.4	2.6	2.7	2.8	2.8
Nominal GDP (millions of T$)	779.3	803.7	846.1	889.4	941.8	993.8	1045.1
GDP per capita (thousands of T$)	7.5	7.7	8.1	8.5	9.0	9.5	9.9
Population (thousands)	103.5	103.9	104.1	104.3	104.6	104.8	105.1

Sources: Tongan authorities; and IMF staff estimates and projections.
1/ Fiscal year beginning July.
2/ Including preliminary data.

Table 2a. Tonga: Summary of Government Operations, FY2013–19

	FY2013	FY2014	FY2015	FY2016	Estimates FY2017	Budget FY2018	Projections FY2018	Projections FY2019
				(In millions of T$)				
Total Revenue	258.9	303.0	295.0	363.8	418.7	541.0	532.1	550.1
Memo: Revenue (excluding grants in-kind)	195.5	231.2	237.4	272.5	287.0	327.6	318.7	317.0
Tax revenue	135.7	141.9	160.9	181.2	200.8	247.5	238.6	241.0
Taxes on income/profits	30.3	28.8	37.4	35.8	34.7	38.1	38.1	38.1
Taxes on property	0.7	0.1	0.2	0.3	0.3	0.9	0.9	0.9
Taxes on goods and services	89.9	97.9	105.7	124.3	139.4	171.9	163.0	170.0
Taxes on international trade and transactions	14.7	15.1	17.6	19.9	26.4	36.6	36.6	32.0
Other taxes	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Grants	103.2	137.3	105.2	146.0	179.4	251.4	251.4	267.5
Current grants (cash)	12.6	32.1	14.5	24.1	27.6	34.4	34.4	34.4
Capital grants (cash)	27.2	33.4	33.1	30.5	20.1	3.6	3.6	0.0
Grants in-kind	63.4	71.8	57.6	91.4	131.7	213.4	213.4	233.1
Other Revenue	19.9	23.8	28.9	36.6	38.5	42.1	42.1	41.6
Total Expenditure	268.5	251.4	317.8	367.6	422.6	554.4	554.7	569.4
Memo: Expenditure (excluding grants in-kind)	205.1	179.6	260.2	276.2	290.9	341.0	341.3	336.3
Expense	204.4	223.7	267.0	284.4	320.7	407.8	408.1	414.4
Salaries and wages	87.5	92.2	98.4	108.5	123.6	135.9	135.9	136.2
Employers' social contribution	7.4	9.2	26.4	18.7	14.5	12.7	12.7	12.7
Interest	7.1	7.1	7.2	7.9	8.1	8.1	8.4	8.5
Of which: External	5.3	5.7	5.9	6.4	6.7	6.3	6.6	6.7
Use of goods and services	79.5	84.6	96.8	107.3	122.7	171.6	171.6	198.8
Subsidies	0.8	0.1	0.1	0.6	0.9	0.9	0.9	0.9
Grants	2.5	3.1	3.7	3.7	3.7	2.5	2.5	2.2
Social benefits	13.8	16.4	19.3	20.8	22.1	24.5	24.5	24.9
Other expense	5.6	10.9	15.1	16.9	25.1	51.6	51.6	30.2
Transactions in Nonfinancial Assets	64.1	27.7	50.8	83.2	101.9	146.6	146.6	155.0
Gross Operating Balance	54.5	79.3	28.0	79.5	98.0	133.2	124.0	135.6
Overall balance	-9.6	51.6	-22.8	-3.8	-3.9	-13.4	-22.6	-19.4
Primary balance	-2.5	58.7	-15.6	4.1	4.2	-5.3	-14.2	-10.8
Net acquisition of financial assets	-5.3	48.6	-15.7	16.0	3.2	15.1	15.2	16.5
External financing (loans)	2.9	-1.8	-3.2	1.6	2.4	26.6	35.9	36.6
Domestic financing (debt securities)	1.4	-1.2	10.3	18.2	4.7	1.9	1.9	-0.7
Memorandum items:								
Effective import duties rate (percent)	5%	4%	4%	4%	5%	6%	6%	5%
Nominal GDP (in millions of T$) 1/	779.3	803.7	846.1	889.4	941.8	993.8	993.8	1045.1
Compensation of employees								
(in percent of domestic revenue)	61.0	61.2	65.7	58.4	57.7	51.3	52.9	52.7
(in percent of current expense)	46.3	56.5	48.0	46.0	47.5	43.6	43.5	44.3
Total external public debt outstanding	343.2	336.5	382.8	390.9	393.3	419.9	429.2	465.7

Sources: Tongan authorities; and IMF staff estimates.

1/ Nominal GDP for FY2018 based on staff estimates for both Budget and Projections.

Table 2b. Tonga: Summary of Government Operations, FY2013–19

					Estimates	Budget	Projections	
	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2018	FY2019
				(In percent of GDP)				
Total Revenue	33.2	37.7	34.9	40.9	44.5	54.4	53.5	52.6
Memo: Revenue (excluding grants in-kind)	25.1	28.8	28.1	30.6	30.5	33.0	32.1	30.3
Tax revenue	17.4	17.6	19.0	20.4	21.3	24.9	24.0	23.1
Taxes on income/profits	3.9	3.6	4.4	4.0	3.7	3.8	3.8	3.6
Taxes on property	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Taxes on goods and services	11.5	12.2	12.5	14.0	14.8	17.3	16.4	16.3
Taxes on international trade and transactions	1.9	1.9	2.1	2.2	2.8	3.7	3.7	3.1
Other taxes	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Grants	13.2	17.1	12.4	16.4	19.0	25.3	25.3	25.6
Current grants (cash)	1.6	4.0	1.7	2.7	2.9	3.5	3.5	3.3
Capital grants (cash)	3.5	4.2	3.9	3.4	2.1	0.4	0.4	0.0
Grants in-kind	8.1	8.9	6.8	10.3	14.0	21.5	21.5	22.3
Other Revenue	2.6	3.0	3.4	4.1	4.1	4.2	4.2	4.0
Total Expenditure	34.5	31.3	37.6	41.3	44.9	55.8	55.8	54.5
Memo: Expenditure (excluding grants in-kind)	26.3	22.3	30.8	31.1	30.9	34.3	34.3	32.2
Expense	26.2	27.8	31.6	32.0	34.1	41.0	41.1	39.7
Salaries and wages	11.2	11.5	11.6	12.2	13.1	13.7	13.7	13.0
Employers' social contribution	0.9	1.1	3.1	2.1	1.5	1.3	1.3	1.2
Interest	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8
Of which: External	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6
Use of goods and services	10.2	10.5	11.4	12.1	13.0	17.3	17.3	19.0
Subsidies	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Grants	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.2
Social benefits	1.8	2.0	2.3	2.3	2.3	2.5	2.5	2.4
Other expense	0.7	1.4	1.8	1.9	2.7	5.2	5.2	2.9
Transactions in Nonfinancial Assets	8.2	3.4	6.0	9.4	10.8	14.8	14.8	14.8
Gross Operating Balance	7.0	9.9	3.3	8.9	10.4	13.4	12.5	13.0
Overall balance	-1.2	6.4	-2.7	-0.4	-0.4	-1.3	-2.3	-1.9
Primary balance	-0.3	7.3	-1.8	0.5	0.4	-0.5	-1.4	-1.0
Net acquisition of financial assets	-0.7	6.0	-1.9	1.8	0.3	1.5	1.5	1.6
External financing (loans)	0.4	-0.2	-0.4	0.2	0.3	2.7	3.6	3.5
Domestic financing (debt securities)	0.2	-0.1	1.2	2.0	0.5	0.2	0.2	-0.1
Memorandum items:								
Effective import duties rate (percent)	5%	4%	4%	4%	5%	6%	6%	5%
Nominal GDP (in millions of T$) 1/	779.3	803.7	846.1	889.4	941.8	993.8	993.8	1045.1
Compensation of employees								
(in percent of domestic revenue)	61.0	61.2	65.7	58.4	57.7	51.3	52.9	52.7
(in percent of current expense)	46.3	56.5	48.0	46.0	47.5	43.6	43.5	44.3
Total external public debt outstanding	44.0	41.9	45.2	44.0	41.8	42.3	43.2	44.6

Sources: Tongan authorities; and IMF staff estimates.

1/ Nominal GDP for FY2018 based on staff estimates for both Budget and Projections.

Table 3. Tonga: Depository Corporations Survey, FY2013–19 1/

	FY2013	FY2014	FY2015	FY2016	FY2017	Projections FY2018	FY2019
			(In millions of T$, end of period)				
Net foreign assets	261.1	269.4	286.1	357.8	383.2	410.6	458.7
Claims on nonresidents	286.1	300.7	319.6	392.4	419.8	447.2	495.3
NRBT	268.5	284.0	300.0	366.4	393.8	421.3	469.3
Other depository corporations	17.6	16.7	19.6	26.0	26.0	26.0	26.0
Liabilities to Nonresidents	-25.1	-31.2	-33.5	-34.6	-36.6	-36.6	-36.6
NRBT	-18.0	-18.2	-19.5	-20.4	-20.7	-20.7	-20.7
Other depository corporations	-7.0	-13.0	-14.0	-14.2	-15.9	-15.9	-15.9
Net domestic assets	82.7	99.4	117.2	112.7	118.3	213.3	235.9
Net domestic credit	214.3	231.0	266.7	290.1	306.9	357.8	408.2
Net claims on government	-44.4	-54.4	-50.0	-74.3	-114.7	-112.8	-113.5
Claims on public nonfin. corps.	16.8	41.7	47.5	46.1	43.4	43.4	43.4
Claims on private sector	241.2	243.0	268.8	317.1	376.9	425.9	477.0
Other items, net	-131.6	-131.6	-149.5	-177.4	-188.6	-144.6	-172.3
Total liquidity (M3)	343.8	368.9	403.3	470.5	558.8	623.9	694.6
Broad money (M2)	334.1	358.3	390.4	449.1	534.9	599.6	669.9
Narrow money	149.4	167.7	182.1	210.8	263.6	268.2	272.8
Quasi money	184.7	190.7	208.3	238.3	271.2	331.4	397.1
FX Deposits	9.7	10.5	12.9	21.5	23.9	24.3	24.8
			(Annual percentage change)				
Net foreign assets	8.6	3.2	6.2	25.1	7.1	7.2	11.7
Net domestic assets	-4.5	20.2	17.9	-3.9	5.0	80.2	10.6
Net domestic credit	2.5	7.8	15.4	8.8	5.8	16.6	14.1
Claims on private sector	-2.7	0.7	10.6	18.0	18.9	13.0	12.0
Total liquidity	5.2	7.3	9.3	16.7	18.8	11.7	11.3
Broad money (M2)	6.1	7.2	9.0	15.0	19.1	12.1	11.7
			(In millions of U.S. dollars)				
Net foreign assets	143.5	150.6	135.9	162.5	165.3	…	…
Claims on nonresidents	157.2	168.1	151.9	178.2	181.1	…	…
NRBT	147.6	158.7	142.5	166.4	169.9	…	…
Other depository corporations	9.7	9.3	9.3	11.8	11.2	…	…
Liabilities to nonresidents	-13.8	-17.5	-15.9	-15.7	-15.8	…	…
NRBT	-9.9	-10.2	-9.3	-9.3	-8.9	…	…
Other depository corporations	-3.9	-7.3	-6.7	-6.5	-6.8	…	…
Memorandum items:							
Velocity (GDP/M2)	2.3	2.2	2.2	2.0	1.8	1.7	1.6
T$ per U.S. dollar (end of period)	1.8	1.8	2.1	2.2	2.3	…	…

Sources: Tongan authorities; and IMF staff estimates.

1/ Comprises the National Reserve Bank of Tonga (NRBT) and other depository corporations (ODCs).

Table 4. Tonga: Balance of Payments Summary, FY2013–19

	FY2013	FY2014	FY2015	FY2016	Estimates FY2017	Projections FY2018	Projections FY2019
			(In millions of U.S. Dollars)				
Trade balance	-172.5	-169.7	-188.3	-178.7	-209.8	-232.0	-254.1
Exports, f.o.b.	14.9	17.9	19.4	24.1	25.3	26.4	27.0
Imports, f.o.b.	-187.4	-187.6	-207.7	-202.8	-235.1	-258.4	-281.2
Services balance	-17.9	-10.6	-19.4	-9.1	-14.4	-17.3	-21.7
Receipts	76.8	56.8	54.7	61.4	67.4	72.5	76.0
Payments	-94.6	-67.3	-74.1	-70.5	-81.7	-89.8	-97.7
Investment income balance	11.3	3.2	4.5	2.5	6.8	8.7	11.6
Receipts	25.0	21.8	23.4	23.2	27.7	29.8	32.9
Payments	-13.7	-18.7	-18.8	-20.7	-20.9	-21.1	-21.3
Transfers balance	135.3	147.1	137.9	129.7	166.0	190.5	207.5
Official transfers (net) 1/	23.3	36.1	26.4	30.7	50.9	67.4	78.2
Private transfers (net)	112.0	111.0	111.5	98.9	115.1	123.1	129.4
Current account balance	-43.7	-30.0	-65.3	-55.6	-51.3	-50.1	-56.7
(In percent of GDP)	-9.7	-6.8	-15.0	-13.2	-12.0	-11.8	-12.9
Capital account balance	30.6	33.6	24.0	29.6	36.1	44.9	39.5
Financial account balance	1.5	9.7	0.9	9.0	16.1	20.5	8.7
FDI (net)	6.2	7.7	10.6	10.9	11.3	11.8	12.2
Other investment (net)	-4.7	2.0	-9.6	-2.0	4.8	8.8	-3.5
Of which: EXIM loans	4.0	0.0	-0.7	-0.6	-0.4	0.0	-6.4
Errors and omissions	13.9	-2.1	24.2	40.8	2.6	0.0	0.0
Overall balance 2/	2.4	11.2	-16.2	23.9	3.5	15.4	-8.5
Memorandum items:							
Gross official foreign reserves	147.6	158.7	142.5	166.4	169.9	185.2	176.7
In months of next year's goods and services import	*6.9*	*6.8*	*6.3*	*6.3*	*5.9*	*5.9*	*5.5*
Exchange rate							
T$ per U.S. dollar (period average)	1.7	1.8	1.9	2.2	2.2	…	…
T$ per U.S. dollar (end of period)	1.8	1.8	2.1	2.2	2.3	…	…
Nominal GDP (in millions of US$)	449.5	443.5	435.4	422.3	427.7	422.9	438.3
Commodity price indexes (2005 = 100)							
Food	176.8	173.8	155.5	142.3	146.4	…	…
Fuel	104.5	100.2	73.5	46.8	46.6	…	…

Sources: Tongan authorities; and IMF staff estimates.

1/ Includes all official grants excluding project funds related to capital formation.

2/ Change in gross official foreign reserves.

Table 5. Tonga: Medium-Term Scenario, FY2013–23 1/

					Estimates	Projections					
	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023[2]
					(Annual percentage change)						
Output and prices											
Real GDP	-3.1	2.1	3.7	3.4	2.7	3.4	3.0	2.9	1.9	1.9	1.1
Consumer prices (end of period)	0.2	1.5	0.2	0.2	10.3	2.5	2.5	2.5	2.5	2.5	2.5
Consumer prices (period average)	0.7	2.3	0.1	-0.6	7.2	5.3	2.5	2.5	2.5	2.5	2.5
GDP deflator	0.5	1.0	1.5	1.7	3.1	2.1	2.1	2.1	2.1	2.1	2.1
					(In percent of GDP)						
Central government finance											
Total Revenue	33.2	37.7	34.9	40.9	44.5	53.5	52.6	51.6	49.0	49.5	49.5
Memo: Total Revenue (excluding grants in-kind)	25.1	28.8	28.1	30.6	30.5	32.1	30.3	31.0	30.8	30.8	30.8
Tax revenue	17.4	17.6	19.0	20.4	21.3	24.0	23.1	23.8	21.9	21.9	21.9
Grants	13.2	17.1	12.4	16.4	19.0	25.3	25.6	23.7	23.2	23.7	23.7
Other Revenue	2.6	3.0	3.4	4.1	4.1	4.2	4.0	4.1	3.9	3.9	3.9
Total Expenditure	34.5	31.3	37.6	41.3	44.9	55.8	54.5	56.0	51.0	50.9	51.9
Memo: Total Expenditure (excluding grants in-kind)	26.3	22.3	30.8	31.1	30.9	34.3	32.2	35.4	32.7	32.2	33.3
Expense	26.2	27.8	31.6	32.0	34.1	41.1	39.7	38.2	38.4	38.4	39.4
Salaries and wages	11.2	11.5	11.6	12.2	13.1	13.7	13.0	12.4	12.4	12.4	12.5
Employers' social contribution	0.9	1.1	3.1	2.1	1.5	1.3	1.2	1.1	1.2	1.2	1.2
Use of goods and services	10.2	10.5	11.4	12.1	13.0	17.3	19.0	18.2	18.5	18.5	19.5
Interest expense	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6
Other expense	2.9	3.8	4.5	4.7	5.5	8.0	5.6	5.8	5.6	5.6	5.5
Transactions in Nonfinancial Assets	8.2	3.4	6.0	9.4	10.8	14.8	14.8	17.7	12.5	12.5	12.5
Gross Operating Balance	7.0	9.9	3.3	8.9	10.4	12.5	13.0	13.4	10.6	11.1	10.1
Overall Balance	-1.2	6.4	-2.7	-0.4	-0.4	-2.3	-1.9	-4.4	-1.9	-1.4	-2.4
Primary Balance	-0.3	7.3	-1.8	0.5	0.4	-1.4	-1.0	-3.6	-1.2	-0.8	-1.8
Net Acquisition of Financial Assets	-0.7	6.0	-1.9	1.8	0.3	1.5	1.6	-0.2	0.0	0.0	0.0
External financing (net)	0.4	-0.2	-0.4	0.2	0.3	3.6	3.5	4.0	1.9	1.4	2.4
Domestic financing (net)	0.2	-0.1	1.2	2.0	0.5	0.2	-0.1	0.2	0.0	0.0	0.0
					(In millions of U.S. dollars)						
Balance of payments											
Trade balance	-172.5	-169.7	-188.3	-178.7	-209.8	-232.0	-254.1	-259.8	-270.8	-284.2	-299.2
Exports, f.o.b.	14.9	17.9	19.4	24.1	25.3	26.4	27.0	27.2	27.3	27.8	28.4
Imports, f.o.b.	-187.4	-187.6	-207.7	-202.8	-235.1	-258.4	-281.2	-287.0	-298.0	-312.1	-327.5
Services balance	-17.9	-10.6	-19.4	-9.1	-14.4	-17.3	-21.7	-20.2	-20.3	-20.3	-19.5
Investment income balance	11.3	3.2	4.5	2.5	6.8	8.7	11.6	13.0	13.6	14.1	9.3
Transfers balance	135.3	147.1	137.9	129.7	166.0	190.5	207.5	213.3	220.1	230.7	239.3
Of which: Remittances	107.4	102.7	102.2	112.2	117.4	124.3	130.4	136.0	141.5	147.2	153.1
(Annual percent change)	39.2	-4.4	-0.5	9.8	4.6	5.9	4.9	4.3	4.0	4.0	4.0
Current account balance	-43.7	-30.0	-65.3	-55.6	-51.3	-50.1	-56.7	-53.7	-57.3	-59.7	-70.0
(In percent of GDP)	-9.7	-6.8	-15.0	-13.2	-12.0	-11.8	-12.9	-11.7	-12.0	-12.0	-13.7
Capital account balance	30.6	33.6	24.0	29.6	36.1	44.9	39.5	36.4	37.3	38.9	40.0
Financial account balance	1.5	9.7	0.9	9.0	16.1	20.5	8.7	11.2	15.4	15.5	19.6
Overall balance	2.4	11.2	-16.2	23.9	3.5	15.4	-8.5	-6.1	-4.6	-5.3	-10.4
Terms of trade (percent change)	1.5	-3.6	2.0	3.1	-1.8	-0.5	-0.7	0.0	0.7	0.3	0.3
Gross international reserves (end of period)											
In millions of U.S. dollars	147.6	158.7	142.5	166.4	169.9	185.2	176.7	170.6	166.0	160.7	150.3
In months of next year's goods and services imports	6.9	6.8	6.3	6.3	5.9	5.9	5.5	5.1	4.7	4.4	4.0
External debt (in percent of GDP)											
Public sector external debt	44.0	41.9	45.2	44.0	41.8	43.2	44.6	46.4	46.5	46.1	47.1
Debt service ratio	1.4	1.5	1.6	1.6	1.6	1.5	3.8	3.6	3.4	3.3	3.1
Public sector total debt (in percent of GDP)	49.2	47.1	51.4	51.8	48.0	49.2	50.3	52.0	51.9	51.3	52.1
Memorandum items:											
Private transfers (net, in millions of U.S. dollars)	112.0	111.0	111.5	98.9	115.1	123.1	129.4	134.8	140.3	146.0	152.1
(In percent of imports of goods and services)	59.8	59.2	53.7	48.8	49.0	47.6	46.0	47.0	47.1	46.8	46.4
Commodity price indexes (2005 = 100)											
Food	176.8	173.8	155.5	142.3	146.4	…	…	…	…	…	…
Fuel	104.5	100.2	73.5	46.8	46.6	…	…	…	…	…	…
Nominal GDP (millions of T$)	779.3	803.7	846.1	889.4	941.8	993.8	1045.1	1097.9	1142.5	1188.2	1226.4

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

1/ Fiscal year beginning July.

2/ FY2023 incorporates the average effect of natural disasters

Table 6. Tonga: Financial Soundness Indicators, FY2011–16

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
Banks							
Net domestic credit			**(Year-on-year percent change)**				
Public non-financial corporations	-12.0	1.0	22.2	148.4	14.0	-3.0	-5.9
Private sector	-9.9	-5.2	-2.7	0.7	10.6	18.0	18.9
			(In percent)				
Credit/GDP	35.5	32.7	33.1	35.4	37.4	40.8	44.6
Regulatory Capital to Risk-Weighted Assets	…	31.4	35.2	39.8	39.4	34.0	29.4
Return on Assets	…	1.0	2.2	2.4	2.9	3.6	2.5
Return on Equity	…	4.8	9.7	10.0	11.8	15.5	11.9
Non-performing Loans to Total Gross Loans	…	14.9	13.6	12.4	9.8	6.7	4.0
Non-performing Loans Net of Provisions to Capital	…	28.7	19.3	19.7	17.3	13.5	8.6

Sources: National Reserve Bank of Tonga; and IMF, Financial Soundness Indicators.

Table 7. Tonga: Baseline and Alternative Scenarios, FY2017–22

	Estimates	Projections				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
	(In percent of GDP)					
	Baseline					
Central Government						
Revenue and grants	44.5	53.5	52.6	51.6	49.0	49.5
Total Expenditure	44.9	55.8	54.5	56.0	51.0	50.9
Expense	34.1	41.1	39.7	38.2	38.4	38.4
Transactions in nonfinancial assets	10.8	14.8	14.8	17.7	12.5	12.5
Primary balance	0.4	-1.4	-1.0	-3.6	-1.2	-0.8
Fiscal balance	-0.4	-2.3	-1.9	-4.4	-1.9	-1.4
Total public debt	48.0	49.2	50.3	52.0	51.9	51.3
o/w External debt	41.8	43.2	44.6	46.4	46.5	46.1
Memorandum items						
Real GDP growth	2.7	3.4	3.0	2.9	1.9	1.9
Inflation (CPI average)	7.2	5.3	2.5	2.5	2.5	2.5
Current account balance	-12.0	-11.8	-12.9	-11.7	-12.0	-12.0
	Revenue and Current Expenditure					
Central Government						
Revenue and grants	44.5	53.9	52.9	53.4	50.2	50.6
Total Expenditure	44.9	55.5	54.4	54.4	50.4	50.3
Expense	34.1	40.7	39.4	36.5	37.9	37.8
Transactions in nonfinancial assets	10.8	14.8	15.0	18.0	12.5	12.5
Primary balance	0.4	-0.8	-0.7	-0.3	0.5	1.0
Fiscal balance	-0.4	-1.7	-1.5	-1.1	-0.2	0.3
Total public debt	48.0	48.9	49.8	48.4	46.8	44.8
o/w External debt	41.8	42.8	44.0	42.7	41.4	39.5
Memorandum items						
Real GDP growth	2.7	2.8	2.6	2.5	1.7	1.7
Inflation (CPI average)	7.2	5.0	2.0	1.8	1.7	1.6
Current account balance	-12.0	-11.8	-12.9	-11.7	-12.0	-12.1
	Capital Expenditure Reduction					
Central Government						
Revenue and grants	44.5	53.7	52.9	52.0	49.8	50.2
Total Expenditure	44.9	55.2	54.2	52.7	50.0	49.8
Expense	34.1	41.2	39.8	38.5	38.6	38.5
Transactions in nonfinancial assets	10.8	14.0	14.3	14.2	11.4	11.3
Primary balance	0.4	-0.7	-0.5	0.0	0.6	1.1
Fiscal balance	-0.4	-1.5	-1.3	-0.7	-0.2	0.4
Total public debt	48.0	48.6	49.2	47.5	45.8	43.7
o/w External debt	41.8	42.6	43.5	41.8	40.4	38.5
Memorandum items						
Real GDP growth	2.7	3.0	2.8	2.6	1.8	1.8
Inflation (CPI average)	7.2	5.0	2.0	1.8	1.7	1.6
Current account balance	-12.0	-11.8	-12.8	-11.4	-11.8	-11.8

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

Appendix I. Risk Assessment Matrix[1]

Source	Likelihood	Impact	Policy Response
EXTERNAL RISKS			
Structurally weak growth in key advanced economies Weak global growth could have a large adverse impact on Tonga via reduced remittances, donor funds and tourism. The impact may be more severe if it is compound with the implementation of inward looking policies.	High	Medium/High	Preserve fiscal and external buffers to cope with adverse shocks in the short term. In the longer term, boost public investment, and pursue structural reforms to improve potential growth and reduce dependence on aid and remittances.
Significant China slowdown and spillovers China is a key development partner for Tonga, providing direct financing of several infrastructure projects.	Low/Medium	Medium/High	
Reduced financial services by correspondent banks ("de-risking") De-risking could have a significant impact on money transfer operators (MTOs) and banks, potentially increasing the cost of inward remittances.	High	Medium	Maintain regulatory and supervisory up to date with international AML/CFT standards.
DOMESTIC RISKS			
Financial stability risks from high credit growth A prolonged period of high credit growth, especially if related to construction, may lead to lower lending standards, and/or excessive assets' price increases.	Low	Medium	Remain vigilant and be ready to intervene should signs of overheating appear.
Wage growth Should the reform of public sector employment fail to contain wage growth in the coming years, there is a risk that the fiscal stance becomes unsustainable, possibly forcing the authorities to borrow externally.	Medium/High	High	Finalize the reform and keep wage growth in check.
Natural disasters (regional) Tonga remains vulnerable to large natural disasters, particularly cyclones, which have caused large damages to infrastructure and production base.	High	High	Maintain fiscal buffers of 4-5 months of recurrent expenditure. Invest in infrastructure that is resilient to disasters.

[1] The Risk Assessment Matrix (RAM) shows events that could materially after the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood of risks listed is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability of 30 percent or more). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly.

Appendix II. Recent Tax Reforms

The Tongan authorities have initiated comprehensive tax reforms to mobilize revenue, tackle inequality, and address the excessive consumption of unhealthy food, drinks, and tobacco products. This appendix discusses reforms to the Pay-As-You-Earn (PAYE) income tax, excise and import taxes, the consumption tax, and the small business tax.

PAYE reform. The government's proposal to change the PAYE system consists of an increase of the minimum taxable income from T$7400 to T$10000 and the introduction of a higher maximum rate of 25 percent for top earners. With the combination of these two measures, the government expects a broadly neutral effect on PAYE revenue. However, the increase in the minimum taxable income narrows significantly the tax base, leaving 60 percent of tax payers below the minimum threshold. The policy, while positive from the point of view of protecting the lower income tax payers and streamlining the administrative burden for tax collection, risks pushing more people into the informal sector and exposes revenue collection to tax-base shocks (such as tax evasion). Given the corporate tax rate is 25 percent, future increases of PAYE tax rates may also not be feasible as they would create incentive for top earners to setup self-employment relationships and declare income as profits (taxed at 25 percent).

Reform to PAYE

Gross Income Range	Percentage of Tax Payers	Rate	Percent of Tax Collected
		(in percent)	
	Old System		
T$0-T$7400	47	0	0
T$7401-T$30000	45	10	45
T$30001 and above	8	20	55
	New System		
T$0-T$10000	60	0	0
T$10000-T$30000	32	10	42
T$30001-T$60000	6	20	30
T$60001 and above	2	25	28

Source: Tongan authorities.

Excise and import duties reform. The government's strategy for boosting revenue while addressing the non-communicable diseases (NDCs) is at the base of the reforms covering food, drinks, and tobacco products taxation. Overall, the government has lowered import duties for imported healthy products, while it converted import duties into excise taxes for widely consumed products that are considered unhealthy, such as sugary drinks, fatty meat, and tobacco. This is a welcome step, which is expected to significantly boost revenue and that the authorities hope will help in modifying in the long term the consumption habits of Tongan consumers, thus improving the overall population's health.

Reform to Import Duties and Excise Taxes for Food, Drinks and Tobacco Products

Product affected	Old measure	New measure
Tobacco concession for inbound travellers	500 cigarettes	250 cigarettes
Fresh fish	0.20 duty	0.10 duty
Tinned fish	0.20 duty	0.05 duty
Lard		$1 per kg
Fruit juice drinks with sugar < 5g/100ml		0.15 duty
Fruit juice drinks with sugar 5g/100ml-20g/100ml		$1.5 per litre
Fruit juice drinks with sugar > 20g/100ml		$4 per litre
Imported flavoured in powder and in ready to drink form		$4 per kg
Sugar and sweetened beverages < 5g/100ml		$1 per litre to 0.15 ad valorem
Sugar and sweetened beverages 5g/100ml-20g/100ml		$1 per litre to $1.5 per litre
Sugar and sweetened beverages > 20g/100ml		$1 per litre to $4 per litre
Imported sweet biscuit	0.15 duty	$1.5 per kg
Imported chocolate	0.15 duty	$1.5 per kg
Imported sugar confectionaries without cocoa	0.20 duty	$5 per kg
Imported lamb flap and lamb breast	0.15 duty	$1.15 per kg
Locally manufactured instant noodle		50 seniti per kg
Imported liquor	$25 per lal	$30 per lal + 0.15 duty
Locally manufactured tobacco/cigarettes		$350 per 1000
Imported manufactured tobacco/cigarettes		$450 per 1000, ad valorem of 0.15

Source: Tongan authorities

Consumption tax reform. The authorities are planning to reform the consumption tax by (i) extending the consumption tax to International Telecommunications and (ii) reducing the tax rate from 15 percent to 12.5 percent. With the reduction of the consumption tax rate the authorities aim at reducing final prices for consumers and boosting purchasing power of the lower income part of the population, but at the cost of considerably lowering revenue from a very broad-based source. The authorities count on the lower outturn from the decreased rate to be more-than-compensated by increased compliance with the tax, as well as strong GDP growth and consumption, boosted by remittances. The reform has not yet been adopted and is pending parliamentary review, probably occurring in the last quarter of FY2018.

Construction Materials Import Tax. In the FY2018 budget, the authorities prepared a proposal to temporarily remove import duties for construction materials, to provide a further boost for the sector. This proposal has been so far put aside by the parliament.

Small Business Tax. Although not a new proposal, the introduction of this tax in FY2015 has succeeded in bringing many small business into the formalized economy, by setting up a streamlined taxation system based on lump-sums. To offer further streamlining, the tax is based on the turnover of the businesses rather on the profit. Only sole proprietors with a turnover of T$100000 or below can file using this process.

Small Business Tax

Annual Turnover	Tax Payable
T$0-T$10000	T$100
T$10001-T$30000	T$250
T$30001-T$50000	T$500
T$50001-T$100000	0.02 of turnover

Sources: Tongan Authorities.

Appendix III. Structural Reforms and Infrastructure Priorities[1]

Tonga needs structural reforms to boost potential growth and reduce vulnerabilities. Among these are continued improvements in financial inclusion, business climate, and private sector development support, particularly MSMEs focusing on expanding export market access and increasing the value added of agriculture and fishery production. Developing infrastructure plays a critical role in connecting and supporting growth in all sectors. Consequently, infrastructure projects should focus on inclusive growth, natural disaster resilience, and long term economic and social goals.

Tonga has developed a National Infrastructure Investment Plan FY2013-23 (NIIP) with the support of the Pacific Infrastructure Advisory Centre (PIAC). This plan outlines government priorities and plans for major infrastructure initiatives with national, regional, or local significance. The NIIP focuses on economic infrastructure facilities that support everyday life and business activity, such as energy supply systems (electricity, fuel); telecommunications (telephone, internet, and broadcasting); water and waste management (water supply, waste water, drainage, and solid waste); and transportation (airports, roads, and sea ports).

For the development of economic infrastructure over FY2013-18, the government set four priority themes: (i) connecting Tonga, (ii) infrastructure for communities, (iii) reliable and affordable energy, and (iv) sustainability, safety, and resilience. Furthermore, the NIIP identified 74 future investment projects with capital requirements around T$690 million. Because of financial constraints, priority has been given to 13 projects (Table 1) aligned with TSDF II [2] objectives, expected to deliver the highest level of benefits to Tonga, and are consistent with available financial resources and implementation capacity. In addition, an estimated T$300 million was invested in economic infrastructure projects during FY2010-13, including redevelopment of roads, electricity, telecommunications, the Nukualofa central business district infrastructure, and the Vuna Wharf cruise ship terminal.

Table 1: NIIP FY2013-23 Highest Priority Proposed Pojects

(T$ million)

Sector	Project	Cost Estim.
Energy	Additional 1-2MW of Solar PV on Tongatapu	24
	Outer Islands On-Grid Renewable Energy Project	9
Telecoms	Fibre-Optic Cable to Ha'apai and Vava'u7	30
	Communications for Early Warning and Disaster Recovery	6
Water	Outer Islands water supply improvements	15
	Expand Nuku'alofa system to growth areas	11
Solid Waste	New Landfill or Transfer Station on Ha'apai	4
Roads	Outer Islands Roads Upgrading Program	10
Ports	Maritime Sector Safety and Resilience	20
Airports	Resurfacing Ha'apai Airport runway, apron, taxiway	9
	New Control Tower at Fua'amotu International Airport	7
Multi-sector	Coastal Protection - Eastern Tongatapu	15
	Disaster Response & Evacuation Infrastructure	12
Sub-total – High Priority proposed projects		172
Projects Underway and Committed Projects (FY2010-13)		173
Total		345

Source: Tonga NIIP FY2013-23.

[1] Prepared by Olena Ftomova.

[2] Tonga strategic development Framework FY2015-25 (TSDF II).

The government has limited capacity to finance infrastructure development. Main sources of infrastructure financing are grants from development partners, concessional loans from international financial institutions, self-financing by public enterprises, and limited financing by government from consolidated revenues. Financing is needed for capital investment in new or upgraded infrastructure; complementary initiatives that support the operation and management of the infrastructure sector; and its ongoing maintenance (Table 2). Fiscal deficit and tight fiscal position has led to limited capacity of the Tongan government to finance economic infrastructure investment from domestic revenues or through borrowing. Currently most economic infrastructure, except roads and outer island ports in Tonga are managed and operated by public enterprises whose financial performance improved in recent years with respect to (i) recording profits, (ii) more paying dividends to the government, and (iii) more strong capacity to self-fund infrastructure maintenance and renewal and fund some of the capital investment projects.

Table 2: NIIP FY2013-23 Indicative Infrastructure Budget for FY2014-18 (T$ million)

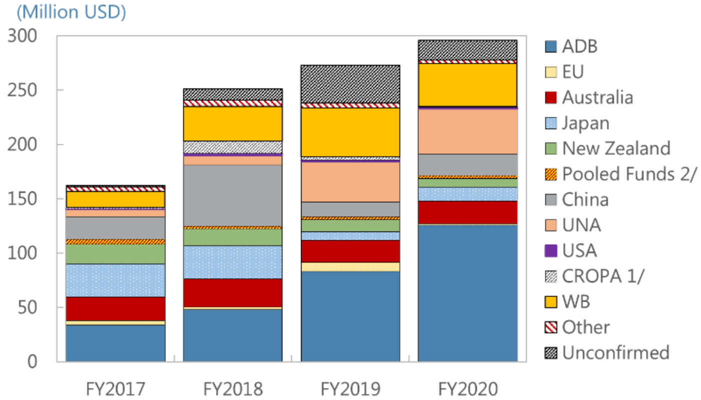
		Funding Source		
	Demand for Funding	Government	Public Enterprises	Development Partners
Capital Investment	385	5	80	300
Complementary Activities	15	-	-	15
Maintenance	70	35	35	-
Total	470	40	115	315

Source: Tonga NIIP 2013-23.

Development partners support plays a critical role in Tongan infrastructure development. Projects that are externally funded are based on the Government's priorities and focused areas of donor interest. Major projects that are currently financed by development partners include natural disaster resilience, energy, urban development, health, education, and transport projects. Projects in the pipeline include upgrading high school sports facilities, the Teufaiva stadium, coastal protection, energy, climate readiness, and youth life skill and employment projects.

Budget Estimates by Development Partners

(Million USD)



Source: MOFNP.

1/ Council of Regional Organization in the Pacific Agency.

2/ Pooled Funds - Australia and New Zealand

The government emphasizes maintenance and improvement of existing infrastructure as a priority, including main roads, agriculture roads, government offices, hospitals, buildings, and major assets. Specifically, the FY2018 Budget allocates T$10 million for road maintenance and sets as a top priority implementation of high impact construction projects. It is anticipated that significant infrastructure development will take place during FY2018. The following projects, including development-funded projects, are committed: the Tonga High School sports facilities funded by

People's Republic of China, the Teufaiva playground (rugby) funded by New Zealand, and a golf course funded by the government of Tonga. Despite the cancelation of PGs, the government has retained the development of sports among their priorities. In general, it is important to ensure that the spending of public resources is focused on economic and social infrastructure. Key priorities should also be given to raising efficiency of public investment and improving targeting and infrastructure investment process.

Appendix IV. Strengthening Ex-Ante and Ex-Post Resilience to Natural Disasters

Ex-Ante risk mitigation	Category of risk management measure	Measures Taken and On-going
Risk Assessment	1. Assess vulnerability 2. Incorporate disaster costs into budget planning	-Enhance PFM systems
Self Insurance	3. Build buffers	-Maintain funding through contingency budget -Maintaining adequate international reserves and moderate public debt
Risk Reduction	4. Improve eco-system resilience of climate resilient infrastructure investments (The Ridge to Reef (R2R) Project)	-Increase ability of coral reefs to recover after climate related events -Improving management of mangroves for climate adaptation -Upgrading evacuation and post disaster access roads -Enhancing coastal protection -Upgrading schools
	5. Enhance preparedness and invest in smart infrastructure	-Rural electrification program to improve energy efficiency -Disaster risk management training and improving communication with districts and communities -Completion of specialized hazard maps and detailed analysis
Risk Transfer	6. Regional risk pooling	-Tonga is one of the five Pacific countries taking part in the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) regional insurance scheme which aims to provide coverage in times of natural disasters. -A Climate Change Trust Fund has been established under the ADB-CRSP (Climate Resilience Sector Projects) project funded by (Climate Investment Fund) CIF.
Ex-Post response		
Coping	7. Emergency response and reconstruction	-Maintaining financial tools and arrangements such as capital budget realignment, bilateral and multilateral donor assistance for relief and reconstruction, flash appeals. -The National Emergency Management Office (NEMO) has pursued to activate 8 out of the 10 coordinated clusters; Water and Sanitation; Food Security and Livelihood (FSL); Safety and Protection; Economic and Social Recovery; Communications; Logistics; Essential Services; Education; shelter; and transport.

INTERNATIONAL MONETARY FUND

TONGA

STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

December 19, 2017

Prepared By

The Asian and Pacific Department
(In consultation with other departments)

CONTENTS

FUND RELATIONS[1]

Membership Status

Joined September 13, 1985; Article VIII.

General Resources Account

	SDR Million	Percent Quota
Quota	13.80	100.00
Total holdings of currency	10.36	75.10
Reserve position in the Fund	3.44	24.90

SDR Department

	SDR Million	Percent Allocation
Net cumulative allocation	6.58	100.00
Holdings	5.37	81.64

Outstanding Purchases and Loans

None

Financial Arrangements

None

Projected Obligations to Fund*

(SDR million; based on existing use of resources and presenting holdings of SDRs)

	Forthcoming				
	2017	2018	2019	2020	20219
Principal					
Charges/Interest	0.00	0.01	0.01	0.01	0.01
Total	0.00	0.01	0.01	0.01	0.01

* When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

Exchange Arrangement

The exchange rate arrangement is a pegged exchange rate within horizontal bands. Tonga has accepted the obligations under Article VIII, Sections 2(a), 3 and 4 and maintains an exchange control system that is free of restrictions on the making of payments and transfers for current international transactions. Since February 11, 1991, the value of the pa'anga is determined based on a weighted basket of currencies comprising the United States, Australian, and

[1] As of September 2017.

New Zealand dollars, with the U.S. dollar as the intervention currency. In July 2014, the Fijian dollar was added to the basket replacing the Japanese yen, and, in July 2010, the monthly maximum adjustment limit was raised to 5 percent from 2 percent that had prevailed since March 1998, when the allowance for adjustment was introduced.

Last Article IV Consultation

Staff discussions were held during March 2016. On June 13, 2016, the Executive Board of the IMF concluded the 2016 Article IV consultation with Tonga and endorsed the thrust of the staff appraisal (IMF Country Report No. 16/178).

Technical Assistance

The Legal Department (LEG) provided assistance on AML/CFT issues for the Pacific islands countries, including Tonga in 2002–05. LEG also provided assistance on the National Reserve Bank of Tonga Act and Financial Institutions Act in 2013–14. MCM provided TA assistance on enhancing the monetary policy framework and developing securities market and on FX reserve management in 2017. PFTAC has been providing TA on an on-going basis on budgetary management; tax administration; tax audit and risk management; banking legislation and supervision; and balance of payment, national accounts and government finance statistics.

Resident Representative

The Regional Resident Representative Office for Pacific Islands, including Tonga, was opened on September 2010 in Suva, Fiji. Mr. Tubagus Feridhanusetyawan is the resident representative.

PACIFIC FINANCIAL TECHNICAL ASSISTANCE CENTRE (PFTAC) COUNTRY STRATEGY 2016–18[1]

Background

Tonga economy continues to grow. Weaker global economic outlook and inward looking policies by development partners may lead to risk associated with future grant financing, private remittances, and revenues from tourism. Non- performing loans in the banking system continue to decrease, while fiscal policy options are tightly constrained by the level of public debt.

Strategy 2017–18

PFTAC's TA strategy is guided by the APD regional strategy and is planned within the results framework for Phase V of the PFTAC funding cycle.

In the public financial management area, the focus is primarily to assist the authorities to implement high priority reforms identified in the PFM Roadmap and in the Joint Policy Reform Matrix between the government and development partners. In the last two years, PFTAC assisted in developing the Roadmap, as well as planning to upgrade the government's FMIS. For FY2017–18, PFTAC TA focused on accounting and reporting improvements that include adoption of international public sector accounting standards-cash basis; and revising the Chart of Accounts to respond to data needs for better budgeting, statistics, and financial reporting. In the medium-term, PFTAC is ready to support other Government's efforts such as to develop an effective medium-term budget framework, and improving PFM legislations.

In the revenue area assistance was provided in: (a) the development of a strategy for strengthening the tax audit function including a review of organizational and staffing arrangements, management practices, planning methods, risk analysis programs, and underlying audit methods and procedures; and (b) reviewing the Consumption Tax Act and Regulations and benchmarking against international best practice to simplify and modernize laws. Tonga was included in the 2017, FAD Review of Tax Reforms in the PFTAC region.

In statistics, Tonga is relatively well advanced against the overall results framework; based on PFTAC advice, it produces National Accounts on two independent measures with production of a range of income indicators. Balance of payments statistics are now being developed according to BPM6 standards. However, sources, quality, and timeliness need to be strengthened. Engagement with the Tonga Department of Statistics (TDS) has strengthened since 2014, when PFTAC took over the provision of national accounts TA, formerly provided by an Australian-funded resident advisor. Recent work has focused on the much greater use of tax returns to estimate GDP by production, though a secure data flow from the tax office is yet to be established.

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[1] As of October 2017.

ESS and GFS support were provided by IMF HQ until 2015; GFS TA is now being provided through a PFTAC resident advisor, while ESS TA is now funded through TAOLAM. A GFS TA mission to Tonga in June 2017 continued to delineate the public sector and reviewed and refined the mapping of the national chart of accounts bridge table for GFS compilation purposes. A four-year time series (FY2013-16) of GFS data for the budgetary central government is now available. The PFTAC PFM advisors and the GFS advisor will work with the authorities to improve the classification, accuracy, timeliness and completeness of data for financial and economic reporting. An ESS mission covering BOP and the IIP is scheduled for November 2017.

In financial sector supervision, since 2013, PFTAC has assisted the NRBT with the deployment of standard prudential returns and with establishing enhanced off-site analysis; and the development of the NRBT's on-site supervision framework and prudential standards. The most recent work was assisting the NRBT with performing on-site examinations of a number of commercial banks, which includes examination preparedness, scoping, planning, execution, and report writing. PFTAC reviewed the NRBT's complete set of Prudential Statements and drafted additional guidelines to ensure compatibility with the amendments made to the Financial Institution Act. In March 2016, the IMF Legal Department completed a desk review of the Financial Institutions Act, and currently been asked to review the latest amendments to the Banking Act (former Financial Institutions Act). Technical assistance in FY2019 will focus on the non-bank sector.

In the macroeconomic area, TA in 2015 was provided jointly by PFTAC and a secondee from the Reserve Bank of New Zealand, who was recruited by PFTAC and funded by the ADB, to build capacity for macroeconomic forecasting and analysis and link this analysis into budget processes. The TA focused on developing GDP forecasting and a macroeconomic programming framework. In October 2015, staff from the Ministry of Finance and National Planning (MFNP), the Tonga Department of Statistics (TDS), and the Ministry of Revenue and Customs (MORC) participated in a five-day workshop on practical applications of the macroeconomic programming framework. During 2015–17 staff also participated in high level dialogues and workshops on enhancing resilience to natural disasters, strengthening fiscal frameworks, medium-term expenditure planning for national sustainable development, forecasting tax revenues, and compiling and forecasting GDP.

WORLD BANK-IMF COLLABORATION[1]

The IMF team led by Ms. Elena Loukoianova (mission chief to Tonga) has a close working relationship with the Bank team led by Mr. Kim Alan Edwards (Country Economist). The teams have an ongoing dialog on a range of macroeconomic and structural issues. The level of cooperation and coordination is good and includes the following:

- 2017 Article IV Consultation Discussions. The World Bank provided support and analytical inputs to the Article IV mission, as in the previous missions. In addition, Bank and Fund staffs prepared jointly the Debt Sustainability Analysis (DSA) appendix to the staff report.
- Economic Updates. IMF analysis continues to be a vital input to the ongoing budget support program, with IMF assessments used as the basis for decisions regarding the appropriateness of the overall macroeconomic policy framework.
- Structural Fiscal Reforms. Bank and Fund staffs continue to collaborate on ongoing analytical work on public expenditure (including public service remuneration), the medium-term macro-framework, and general structural issues. A joint work on the structural reforms and investment priorities is included as an appendix in the 2017 Article IV staff report.

Based on the above cooperation, the Bank and the Fund staff share a common view about Tonga's macroeconomic and structural reform priorities, which mainly aims at mitigating the risks to Tonga's external and fiscal sustainability and at promoting long-term growth. These include:

- Sustainable fiscal management. Tonga is extremely vulnerable to natural disasters and other external shocks, highlighting the importance of maintaining fiscal buffers. Construction costs for infrastructure development and pressures for further increases in payroll spending pose challenges to fiscal sustainability if not carefully managed. The implementation of recent public sector remuneration reforms should be targeted at containing growth in the overall wage bill. Any new borrowing should support high priority investments, be contracted on concessional terms, and remain within sustainable limits. Fiscal sustainability will also be supported by continued improvements in revenue administration and expenditure control, as well as structural reforms. The government's fiscal efforts will need to be supplemented by ongoing provision of grants from donors.
- Making use of the flexibility afforded by the current exchange rate arrangement. This remains important for safeguarding external stability.
- Promoting private drivers of growth. Given fundamental constraints of smallness and isolation, growth prospects are likely to remain concentrated in areas where premiums can be generated to cover higher costs of production. Tourism-servicing sectors, commercial agriculture, and fisheries hold the greatest potential for private sector development. To facilitate development in these areas there is a need to: (i) improve the efficiency and

[1] As of October 2017.

regulation of sectors such as energy, water, and telecommunications to improve service provision and reduce costs.

Table 1. Tonga: Bank and Fund Planned Activities in Macro-Critical Structural Reform Areas (February 2016–January 2018)

	Products	Expected Delivery Date
Bank Work Program	• Procurement IT systems TA • Social protection and disaster risk management TA • Second inclusive growth development policy operation • NCD tax-policy assessment • Fiscal anchor TA • Public sector remuneration TA	• FY2017 • FY2018 • FY2017 • FY2018 • FY2017 • FY2017/18
Fund Work Program	• 2016 Article IV Policy Note • 2016 Article IV Mission • 2016 Article IV Staff Report/Board Meeting • MCM TA on Enhancing the Monetary Policy Framework and Developing Securities Market • 2017 Staff Visit mission • 2017 Article IV Mission • 2017 Article IV Staff Report/Board Meeting	• February 2016 • March 2016 • June 2016 • January 2017 • March 2017 • September/October 2017 • December 2017

RELATIONS WITH THE ASIAN DEVELOPMENT BANK[1]

The Pacific Approach, 2016–20 serves as the operational framework of the ADB in the Pacific region and the overall country partnership strategy for its 11 Pacific island smaller member countries including Tonga.

The three-pronged strategy of the ADB Pacific Approach 2016–20 focuses on reducing costs, managing risks, and enabling value creation. ADB's mainstay infrastructure program focuses on transport, information and communication technology, and renewable energy to reduce the costs of connectivity and energy. The program's public sector management operations continue to support country efforts to manage financial and economic risks and set to expand its work in climate change and disaster risk management, mobilize more financing for Tonga, introduce innovative solutions to strengthen disaster preparedness, address vulnerability, and build resilience. ADB is also assisting Tonga to create conditions that enable the private sector to grow, strengthen links with the growing economy, and create value.

The focus of the ADB-Tonga COBP 2018-20 on infrastructure investments with major investments in information and communication technology (ICT), energy, water and urban resilience, and land transport sector is consistent with the ADB's Pacific Approach 2016–20 and aligns well with the vision of the Tonga Strategic Development Framework (TSDF II), 2015–25 to create a more progressive Tonga supporting a higher quality of life for all.

ADB funding to Tonga is now on an Asian Development Fund (ADF) blend country basis, that is, it is receiving 50 percent of its resources as grants.

ADB's significant scaling up of both financial and technical support to Tonga reflects both the country's development needs and policy reform efforts. By the end of 2017, ADB will have approved 18 loans and 17 grants totaling just over US$129 million from the Asian Development Fund (ADF). This has been increasing rapidly in recent years. Since 2008, ADB has committed about US$71 million in ADF resources to Tonga, compared to total ADF commitments of US$58 million made in the 35 years between Tonga joining ADB in 1972 and 2007.   In the same period since 2008, ADB has also mobilized about US$35 million in co-financing and over US$10 million in technical assistance.

There are 6 projects amounting to US$72 million (net commitment) active in the portfolio. They include the Tonga-Fiji Submarine Cable project extended to fund domestic marine cable from Tongatapu to Ha'apai and Vava'u; the Nuku'alofa Urban Development Sector project (with co-financing from Australia) and the Outer Island Renewable Energy project (with co-financing from Australia, Denmark, and the European Union); and the Climate Resilience Sector project financed by the Strategic Climate Fund. The Cyclone Ian Recovery project (with co-financing from New Zealand) has climate- and disaster-proofed schools and energy infrastructure on the Ha'apai Island group damaged by cyclone Ian in January 2014. The ADB is active in the joint policy reform dialogue with

[1] As of October 2017.

the government of Tonga including other development partners, which is linked to budget support disbursements through ADB's policy-based lending modality.

Tonga: Loan, Grant, and Technical Assistance Approvals, 2012–17

	2012	2013	2014	2015	2016	2017
Loan approvals						
Number	0	0	0	0	2	2
Amount (in millions of US$)	0.0	0.0	0.0	0.0	5.50	5.85
Grant approvals						
Number	0	4	2	3	2	2
Amount (in millions of US$)	0.0	30.25	8.79	5.76	5.50	5.15
Technical assistance approvals						
Number	3	1	1	1	0	1
Amount (in millions of US$)	1.38	1.33	0.68	0.30	0.00	0.90

STATISTICAL ISSUES

TONGA—STATISTICAL ISSUES APPENDIX As of October 15, 2017	
I. Assessment of Data Adequacy for Surveillance	
General: While economic statistics are broadly adequate for surveillance, the lack of officially reported data continues to complicate the monitoring of economic conditions and policy formulation. The Fund's Statistics Department (STA), in collaboration with the Pacific Financial Technical Assistance Centre (PFTAC), has provided regular technical assistance (TA) to Tonga Statistics Department (TSD) and the Ministry of Finance and National Planning (MOFNP). Recent topics covered by TA included national accounts, government finance, and balance of payments (BOP) statistics.	
National Accounts: GDP compilation capacity is quite limited (only two staff), leading to frequent delays. The coverage of the national accounts data has widened in the past few years because of enhanced TA, but there is still room for improvement. Recent PFTAC TA has worked to use tax data to complement the business survey. A rebase to 2015/16 is planned in 2018/19.	
Price Statistics: The Consumer Price Index (CPI) is based on a basket of goods and services from the 2009–10 HIES. CPI is estimated monthly with lags in dissemination and coverage is limited to the Tongatapu District.	
Government Finance Statistics: GFS compilation has been migrated to GFS2014 with TA provided by PFTAC in June 2017. Timeliness and ease and efficiency in reporting remain an issue. Source data are often available with a significant time lag and in-year sub-annual reporting requires considerable manual intervention. The financial accounting system has not been upgraded and thus is not capable of capturing all transactions with much of the government's financial business processes and data collection completed on a manual basis. For example, the budget is compiled manually; debt management is conducted outside of the financial accounts; aid revenue data is not included in the financial accounts; and payments and receipts are both processed and recorded on a manual basis. Reconciliation with monetary and BOP data requires enhancement and published data are often subject to significant revisions. Consolidated financial statistics for the general government are not published due to lack of source data and capacity and up until now, no data are reported for publication in the GFS Yearbook (GFSY).	
Monetary and Financial Statistics: NRBT reports data for the central bank, other depository corporations, and monetary aggregates using the standardized report forms (SRFs).	
Financial Sector Surveillance: Tonga compiles FSIs for deposit takers and reports them to STA on a regular quarterly basis.	
External Sector Statistics: Source data have shortcomings in accuracy, completeness, timeliness, and classification, reflecting also resource limitations. Large net errors and omissions remain due to under-reporting of components. Data gaps could be addressed by enhancing the IIS response rate and gathering more accurate financial transactions data; obtaining data on compensation of employees, remittances, and acquisition of goods and services by overseas workers; and capturing capital transfers related to donor-funded construction projects. The challenges to improve external sector statistics faced with the TSD and the NRBT are 1) to improve coverage of items in financial account by enhancing IIS response rate and gathering more accurate banks' financial transactions data, 2) to obtain not captured data e.g. compensation of employees, remittances and acquisition of goods and services by overseas workers and incorporate them into BOP statistics, 3) to capture capital transfers accompanied by main construction projects and incorporate them into BOP statistics, and 4) to maintain adequate staff resources for compiling and disseminating balance of payments and IIP in accordance with the international standards.	
II. Data Standards and Quality	
The country has been participating in the GDDS since May 30, 2006.	No data ROSC is available.

TONGA

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

December 19, 2017

Approved By
Odd Per Brekk (IMF) and John Panzer (IDA)

Prepared by the staff of the International Monetary Fund (IMF) and the International Development Association (IDA)

The 2017 Tonga's debt sustainability analysis (DSA) increases the external debt distress rating from moderate to high risk, as the indicative thresholds for debt-to-GDP and debt-to-exports are breached in the projection horizon, given the large expected impact on economic growth and fiscal balances posed by future natural disasters.

The new classification is due to a change in the treatment of future spending related to natural disasters.[1,2] The DSA 2017 incorporates effects of natural disasters in the baseline projections with two separate projection horizons. The baseline projections assume no natural disaster until FY2023, and an alternative scenario with a disaster in FY2018 is considered separately. After FY2023, the baseline scenario assumes a permanently lower GDP growth rate and wider fiscal and current account deficits. Overall, these assumptions are the main driving factor for debt dynamics. The DSA rating is not derived from the baseline scenario but from an alternative DSA scenario that excludes remittances, because remittances finance consumption, they are very volatile, and the channels for the transmission of remittances to Tonga are fragile.

This DSA highlights the importance of preserving Tonga's policy to cap external debt and to borrow externally only in exceptional circumstances and on highly concessional terms. At the same time, there is a need to contain fiscal expenditure to maintain fiscal buffers, which would help Tonga reduce its large reliance on donor funding to finance potential future disasters costs.

[1] To account for the average effect of natural disasters, this DSA incorporates in the baseline scenario for FY2023 onwards a long-term growth rate of 1.1 percent, which is permanently lower than the 1.8 percent potential growth rate in the absence of natural disasters, and a debt-creating flow of one percent of GDP per year. Average yearly natural disasters damages for Tonga amount to approximately three percent of GDP.

[2] IMF Board Paper "Small States Resilience to Natural Disasters and Climate Change—Role for the IMF," 2016.

BACKGROUND

1. **Reconstruction costs after Cyclone Ian in 2014 and a legacy of large external loans have contributed to the accumulation of external debt in Tonga.** The current Government's policy of no non-concessional external debt has helped to keep the outstanding amount of debt under control. External debt was 41.8 percent of GDP in FY2017 decreasing from 44 percent of GDP in FY2016, thus remaining below the Government's threshold of 50 percent.

2. **The external debt distress rating is raised from moderate to high, to better account for the spending needed to finance reconstruction after future natural disasters.** The medium-term baseline projections are adjusted to fully internalize the average effect of natural disasters on GDP growth, and on the current account and fiscal balances. The methodology used in this DSA is in line with the 2016 IMF Board Paper "Small States' Resilience to Natural Disasters and Climate Change." Given the elevated costs associated with reconstruction following natural disasters, the inclusion of additional spending in the medium-term projections is the main driver of worsened external debt dynamics for Tonga.

3. **In the short-term, external debt remains stable in the baseline scenario, with a considerable increase in debt service ratios and utilization of FX reserves.** Planned repayments of the China EXIM loans starting in FY2019 partially offset the financing requirements stemming from the government's infrastructure spending. The repayments, though positive in terms of stabilizing the debt burden, will put considerable pressure on debt service ratios and on Tonga's foreign exchange (FX) reserves in the upcoming years. Debt service is projected at 1.5 percent of GDP in FY2018 and, subsequently, to more than double to 3.8 percent of GDP from FY2019 onwards.

4. **The Government of Tonga has a limited exposure to domestic public and private enterprises, through its on-lending of funds.** As of end FY2017, total government loans outstanding stood at T$52.5 million, of which T$11.1 million or 1.2 percent of GDP are currently in arrears. The largest component of these arrears is on-lent funds to companies with majority of state ownership, which are currently under liquidation.

METHODOLOGY AND ASSUMPTIONS: NATURAL DISASTERS IN THE BASELINE SCENARIO

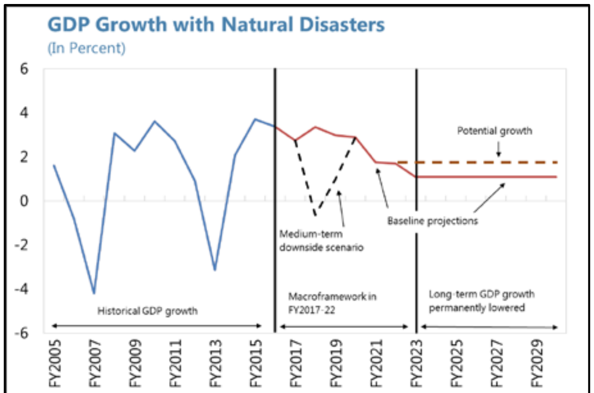
5. **Tonga is very vulnerable to natural disasters, in terms of both recurrence and average damage as a percent of GDP.** The 2016 World Risk Index[3] ranks Tonga as the world's second most vulnerable country to natural disasters, while a recent IMF Board Paper[4] ranked Tonga as eleventh most vulnerable Small Developing State to natural disasters.

6. **The assumptions used to prepare the DSA are consistent with the macroeconomic framework of the Staff Report for the 2017 Article IV Consultation and are as follows:**

[3] United Nations University Institute for Environment and Human Security, 2016, http://weltrisikobericht.de/english/

[4] IMF Board Paper "Small States Resilience to Natural Disasters and Climate Change—Role for the IMF," 2016.

- **Real GDP growth** is projected to remain between 2.7 percent and 3.4 percent in FY2017 through FY2020, mainly due to strong construction activity and increasing exports of tourism and agriculture. For FY2020 through FY2022, growth is projected to gradually decline towards the long-term average of 1.8 percent, assuming no natural disasters. To incorporate the average effect of natural disasters on growth, consistently with IMF (2016), long-term GDP growth is lowered by 0.7 percentage points to 1.1 percent from FY2023 onwards.[5,6]



Source: Tongan authorities; and IMF Staff calculations.

- **Inflation**, measured as the GDP deflator growth, is projected to stabilize around 2.1 percent from FY2018 onwards, after an increase to 3.1 percent occurred in FY2017. The GDP deflator increased in FY2017 due to dry weather pushing up domestic food and kava prices. In the same period, the spike in CPI inflation was much larger reflecting a sharp increase of import taxes on fatty meat and tobacco products.

- **Higher own-financed reconstruction spending in both the fiscal and current account balances.** To quantify the additional burden on the fiscal expenditure of reconstruction costs, staff used data on natural disasters starting in 1980 to calculate (i) the probability that a natural disaster occurs in each year; and (ii) the average cost of damages associated with natural disasters. Using these data, the estimated average yearly damage is calculated as the multiplication of (i) and (ii), yielding for Tonga an approximate yearly damage of three percent of GDP. This DSA assumes that one percent of GDP from this damage is the yearly reconstruction cost that must be financed by government borrowing in the baseline scenario starting in FY2023.

- **The current account (CA) deficit** has been wavering around 12 percent of GDP in the latest periods, notwithstanding a strong private remittances component. In the medium-term, the CA is projected to stabilize around 12 percent of GDP before the effect of natural disasters. To take these latter into account, this DSA assumes that reconstruction spending has a 100 percent import component and, consequently, the CA deficit is widened by one percent of GDP from FY2023 onwards.

- **The fiscal deficit** is projected to widen to 2.3 percent of GDP in FY2018 and reach 4.4 percent of GDP in FY2020 due to increased infrastructure investments. It is then projected to stabilize at around 1.4 percent of GDP before the effect of natural disasters. From FY2023 onwards, the

[5] Given large natural disasters occur approximately every four to five years, growth projections for FY2018-22 exclude the average effect of natural disasters. The possibility that a disaster occurs in FY2018 is accounted for in a separate scenario.

[6] Limited data availability affects the calculation of an average impact, which relies on staff estimates. Data covering FY2002-16 show an average GDP growth rate of 1.2 percent when natural disasters are included. The impact of 0.7 percentage points is in line with estimates calculated by Cabezon et al, 2015, “Enhancing Macroeconomic Resilience to Natural Disasters and Climate Change in the Small States of the Pacific.”

deficit is projected to widen by one percent of GDP, to account for average additional borrowing due to natural disasters.

- **Remittances** flows in Tonga are large, mainly from a low skilled labor force of seasonal workers in Australia and New Zealand. Although the flows have recently been strong, they are volatile and subject to changes in the economic cycle of these two countries, which can affect the income of and the demand for low skilled workers. In Tonga, remittances are used by relatives of emigrants to finance consumption, mostly of imported goods. Finally, it is expected that future pressures on flows will stem from the increased costs of remittances associated with the de-risking and loss of correspondent banking relationship phenomena.
- **The financing requirements**, which from FY2023 onwards include natural disasters spending, are assumed to be met mainly through additional external borrowing. The average grant element of this borrowing in the medium term converges to close to 40 percent. The calculation of the average grant element assumes that future financing from the ADB and IDA remains on a 50 percent grant and 50 percent loan basis, and that additional borrowings not covered by the ADB or IDA are on terms that are concessional but not as favorable as the ADB or IDA.[7]

EXTERNAL DSA

7. The present value (PV) of external debt-to-GDP plus remittances ratio hits the indicative threshold in FY2037, while the PV of external debt-to-GDP ratio (excluding remittances from the denominator) breaches the indicative threshold in FY2032 (Figures 1a and 1b). At the end of the projection horizon in 2037, the PV of debt-to-GDP is 4.2 percentage points above the indicative threshold. These results are mainly driven by the incorporation of natural disasters, which have negatively affected Tonga's economic growth and overall contribute to weaker and more volatile fiscal and external positions.[8]

8. Excluding private remittances from the denominator of the debt-to-GDP projections (and the associated thresholds) provides a more accurate reflection of the sustainability of Tonga's external debt. Remittances, at 27.4 percent of GDP in FY2017, play a large role in Tonga's macroeconomic framework. At the same time, remittances in Tonga are almost entirely used to finance consumption, which has a large import component. Remittances are also highly volatile. Furthermore, similar to a number of other Pacific Islands, Tonga has intermittently faced pressures on remittance channels as banks have responded to tightening AML/CFT standards by closing bank accounts of money transfer operators. Therefore, remittances—though large—should not be considered a mitigating factor in the debt sustainability assessment, as they are volatile and are not a reliable source of FX. Staff therefore assess Tonga's debt sustainability using the alternative scenario which does not include remittances.

9. The largest contributor to the combination shock to the PV of debt-to-GDP is a decrease in external transfers. This result highlights the large reliance of Tonga on external non-debt creating funding (e.g. grants in the case of official transfers) to finance fiscal expenditure. Although the scenario is unlikely,

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[7] The assumptions on future grant financing are based on discussions with donors (development agencies of New Zealand and Australia; as well as IDA and ADB). The assumptions in this DSA also allow for a portion of the costs associated with natural disaster-related damages to be financed by additional grants from development partners.

[8] Nevertheless, the large amount of in-kind official and private transfers in Tonga's balance of payments mean that a sizable part of Tonga's current account deficit is not debt-creating.

the shock shows how vulnerable are public finances should a significant shortfall in donor funding materialize.

10. **The repayment of the EXIM loans in the coming fiscal years more than doubles the debt-service ratios.** The servicing of these loans, particularly in terms of principal repayments, is expected to reduce Tonga's FX reserves, and is subject to exchange rate risk. Thus, should existing buffers not be sufficient to meet the large payments, the additional debt service burden may lead to new financing needs in addition to the existing pressures from the government's infrastructure spending, putting at risk the stabilization of debt that is currently projected in the baseline scenario.

11. **Finally, the DSA considers a downside scenario, in which a natural disaster occurs in FY2018, sooner than the incorporation of the average annual effect into the projections. (Figure 1, green line)**. Under this scenario, which in accordance with staff estimates has a probability of around 30 percent, the sustainability threshold would be breached much sooner. For this scenario, a damage of 10 percent of GDP and a reduction of GDP growth of four percent are assumed in FY2018, both in line with historical averages.

PUBLIC DSA

12. **The PV of public debt-to-GDP ratio does not breach the indicative threshold in the DSA projections** (Figure 2). Nevertheless, the baseline scenario features an increasing debt burden from FY2023 onwards, reflecting the additional indebtedness due to spending on natural disasters.

CONCLUSION

13. **The risk of external debt distress rating in the DSA 2017 is increased to *high*, due to Tonga's fiscal fragility and the potentially large impact of natural disasters on debt sustainability.** The reclassification is based on the model which does not include remittances. This notwithstanding, the current debt burden is still at a moderate level. Against this background, the authorities should focus fiscal efforts on maintaining fiscal sustainability by targeting a primary surplus of one percent of GDP in the medium term, while keeping buffers at a minimum of four-to-five months of recurrent expenditure, in view of future reconstruction efforts. The most extreme shock considered by the DSA framework highlights Tonga's reliance on transfers, and shows the country is very vulnerable should a shortfall in non-debt creating financing materialize.

Authorities' Views

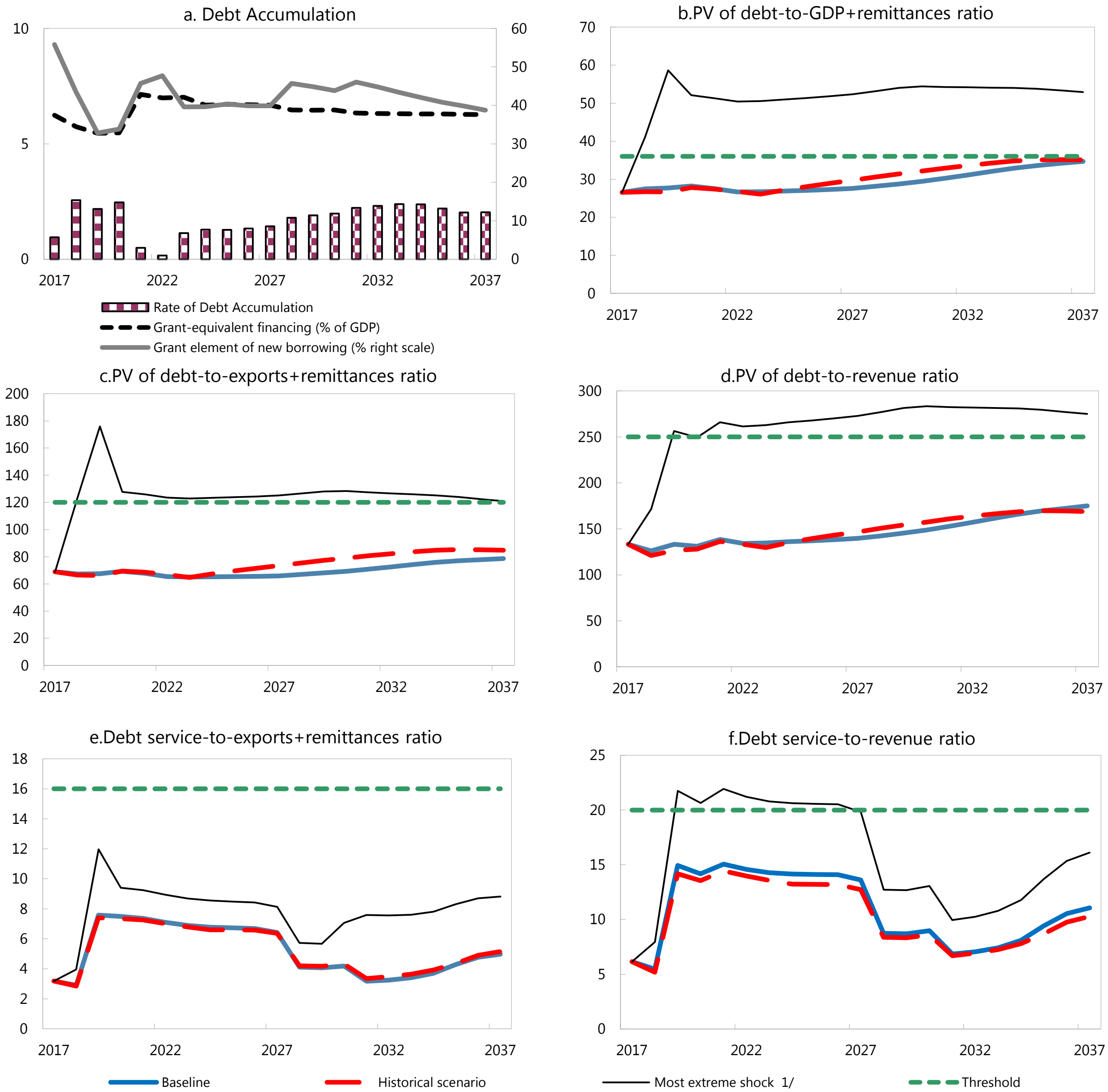
14. **The authorities agreed with staff's DSA assessment, including on the reclassification to "high risk".** Staff delivered a presentation on the new DSA with natural disasters to officials from the NRBT and the MOFNP. The authorities welcomed the explicit account of natural disasters in the long run projections and potentially significant adverse effects on growth and fiscal accounts. In their view, the higher share of loans financing from development partners in the previous framework without natural disasters posed a threat to debt sustainability in the long run. The authorities agreed on the need for further research work to continue improving the quantification of the macroeconomic burden of disasters. Finally, they agreed with the need for a more prudent fiscal policy and to maintain sufficient buffers, in view of Tonga's vulnerability to external shocks.

Figure 1a. Tonga: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios Excluding Remittances, 2017–37 1/

Sources: Country authorities; and staff estimates and projections.

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

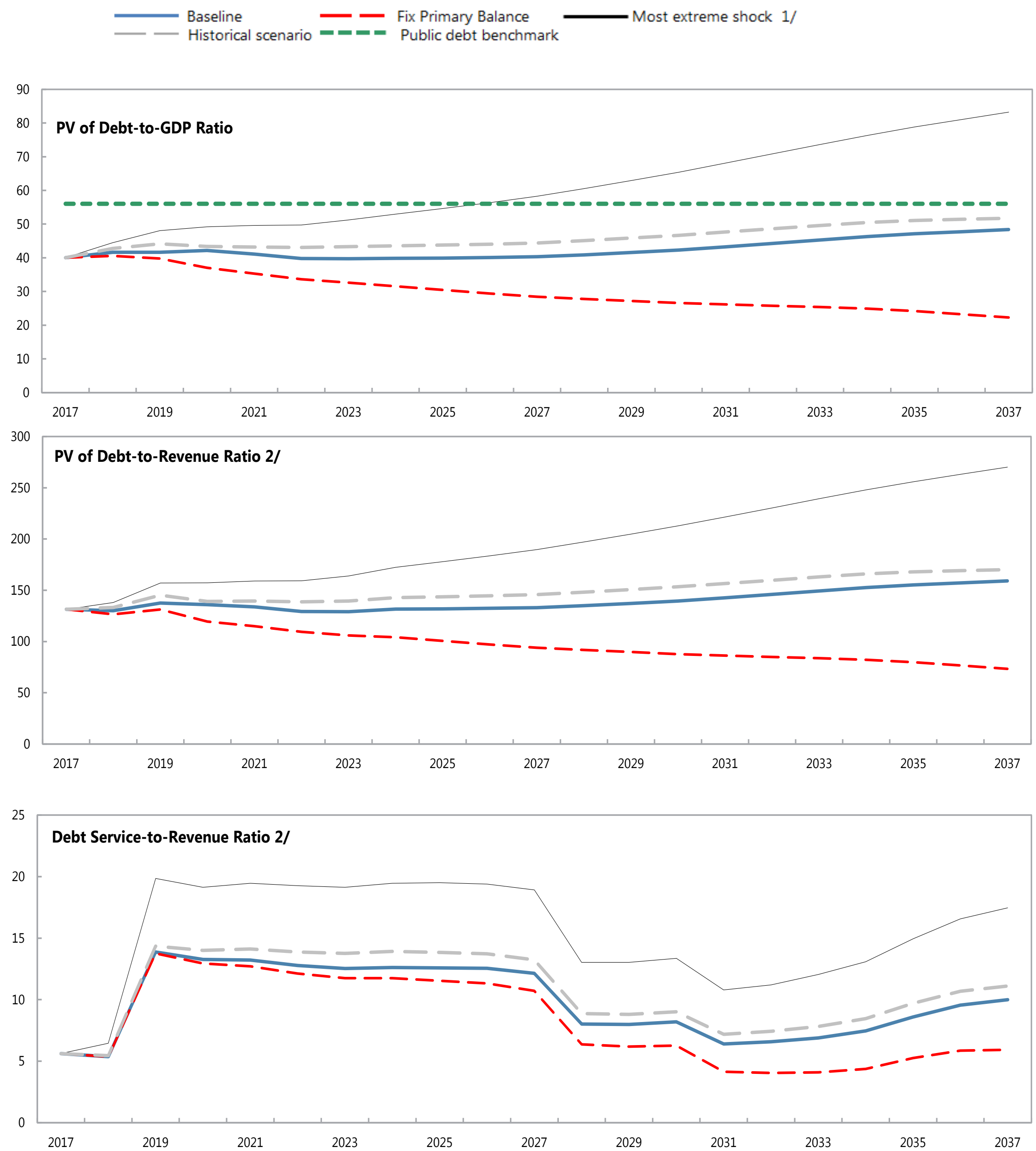
Figure 1b. Tonga: Indicators of Public and Publicly Guaranteed External Debt Including Remittances, 2017–37 1/



Sources: Country authorities; and staff estimates and projections.

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

Figure 2. Tonga: Indicators of Public Debt Under Alternative Scenarios, 2017–37 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2027.

2/ Revenues are defined inclusive of grants.

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

(In percent of GDP, unless otherwise indicated)

	Actual			Historical [6/] Average	Standard [6/] Deviation	Projections									
	2014	2015	2016			2017	2018	2019	2020	2021	2022	2017-2022 Average	2027	2037	2023-2037 Average
External debt (nominal) 1/	**41.9**	**45.2**	**41.7**			**45.0**	**47.4**	**48.5**	**50.0**	**50.0**	**49.5**		**55.3**	**68.3**	
of which: public and publicly guaranteed (PPG)	41.9	45.2	41.7			45.0	47.4	48.5	50.0	50.0	49.5		55.3	68.3	
Change in external debt	-2.2	3.4	-3.5			3.2	2.5	1.1	1.5	0.0	-0.5		1.3	0.9	
Identified net debt-creating flows	5.7	13.3	12.0			8.2	7.6	8.8	7.6	8.3	8.4		8.0	10.1	
Non-interest current account deficit	**6.1**	**14.3**	**12.5**	**12.9**	**5.9**	**11.3**	**11.1**	**12.2**	**10.8**	**11.1**	**11.1**		**10.4**	**12.6**	11.3
Deficit in balance of goods and services	40.6	47.7	44.5			52.4	59.0	62.9	60.8	60.8	61.4		60.1	63.4	
Exports	16.8	17.0	20.2			21.7	23.4	23.5	23.2	23.1	23.2		24.4	27.3	
Imports	57.5	64.7	64.7			74.1	82.4	86.4	84.0	83.9	84.5		84.6	90.7	
Net current transfers (negative = inflow)	-33.2	-31.7	-30.7	-28.8	3.3	-38.8	-45.1	-47.3	-46.3	-46.0	-46.5		-46.9	-46.9	-46.9
of which: official	-8.1	-6.1	-7.3			-11.9	-15.9	-17.8	-17.0	-16.7	-17.1		-17.1	-17.1	
Other current account flows (negative = net inflow)	-1.4	-1.7	-1.3			-2.2	-2.7	-3.4	-3.7	-3.8	-3.7		-2.9	-3.9	
Net FDI (negative = inflow)	**-1.7**	**-2.4**	**-2.6**	**-3.6**	**4.5**	**-2.7**	**-2.8**	**-2.8**	**-2.7**	**-2.7**	**-2.7**		**-2.8**	**-3.1**	-2.9
Endogenous debt dynamics 2/	**1.3**	**1.5**	**2.1**			**-0.5**	**-0.8**	**-0.6**	**-0.5**	**0.0**	**0.0**		**0.5**	**0.6**	
Contribution from nominal interest rate	0.7	0.7	0.7			0.6	0.7	0.8	0.9	0.9	0.9		1.0	1.3	
Contribution from real GDP growth	-0.9	-1.6	-1.6			-1.1	-1.5	-1.4	-1.3	-0.9	-0.9		-0.6	-0.7	
Contribution from price and exchange rate changes	1.5	2.4	3.0			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**-7.8**	**-10.0**	**-15.5**			**-5.0**	**-5.1**	**-7.7**	**-6.1**	**-8.3**	**-8.9**		**-6.7**	**-9.2**	
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/	...	...	31.4			33.8	35.6	36.0	36.6	35.7	34.6		35.9	45.1	
In percent of exports	...	...	155.0			156.2	152.1	153.0	157.8	154.6	149.3		147.0	165.2	
PV of PPG external debt	**...**	**...**	**31.4**			**33.8**	**35.6**	**36.0**	**36.6**	**35.7**	**34.6**		**35.9**	**45.1**	
In percent of exports	**...**	**...**	**155.0**			**156.2**	**152.1**	**153.0**	**157.8**	**154.6**	**149.3**		**147.0**	**165.2**	
In percent of government revenues	**...**	**...**	**134.9**			**133.2**	**126.1**	**133.2**	**131.2**	**138.6**	**134.3**		**139.6**	**174.9**	
Debt service-to-exports ratio (in percent)	**8.9**	**8.9**	**7.6**			**7.2**	**6.6**	**17.2**	**17.0**	**16.8**	**16.2**		**14.3**	**10.4**	
PPG debt service-to-exports ratio (in percent)	**8.9**	**8.9**	**7.6**			**7.2**	**6.6**	**17.2**	**17.0**	**16.8**	**16.2**		**14.3**	**10.4**	
PPG debt service-to-revenue ratio (in percent)	**7.3**	**6.8**	**6.6**			**6.2**	**5.5**	**14.9**	**14.2**	**15.1**	**14.6**		**13.6**	**11.1**	
Total gross financing need (Millions of U.S. dollars)	25.8	58.3	48.2			43.9	41.9	58.8	55.3	58.5	60.3		63.2	94.8	
Non-interest current account deficit that stabilizes debt ratio	8.2	10.9	16.0			8.1	8.7	11.1	9.3	11.1	11.6		9.1	11.7	
Key macroeconomic assumptions															
Real GDP growth (in percent)	2.1	3.7	3.4	1.5	2.8	2.7	3.4	3.0	2.9	1.9	1.9	2.6	1.1	1.1	1.1
GDP deflator in US dollar terms (change in percent)	-3.3	-5.3	-6.2	2.6	9.0	-1.4	-4.3	0.6	2.1	2.0	1.8	0.1	1.8	1.8	1.8
Effective interest rate (percent) 5/	1.7	1.6	1.6	1.6	0.4	1.6	1.6	1.7	1.9	1.9	1.8	1.8	2.0	2.0	1.9
Growth of exports of G&S (US dollar terms, in percent)	-18.6	-0.7	15.3	9.8	25.2	8.4	6.8	4.1	3.6	3.6	4.0	5.1	4.0	4.1	4.1
Growth of imports of G&S (US dollar terms, in percent)	-9.6	10.6	-3.0	6.4	8.5	15.9	9.9	8.8	2.1	3.8	4.5	7.5	3.6	3.7	3.4
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	55.8	43.5	32.8	33.8	45.7	47.7	43.2	39.9	38.7	42.0
Government revenues (excluding grants, in percent of GDP)	20.6	22.4	23.3			25.4	28.2	27.0	27.9	25.8	25.8		25.7	25.8	25.7
Aid flows (in Millions of US dollars) 7/	36.2	24.5	24.6			30.7	28.5	24.6	26.6	39.7	40.5		42.4	51.8	
of which: Grants	36.2	24.5	24.6			21.7	16.2	14.4	14.4	23.7	24.8		26.2	35.0	
of which: Concessional loans	0.0	0.0	0.0			9.0	12.4	10.1	12.2	16.0	15.7		16.2	16.8	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			6.2	5.7	5.5	5.5	7.1	7.0		6.7	6.3	6.5
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			87.0	69.7	55.1	54.4	73.3	76.2		67.9	70.1	71.4
Memorandum items:															
Nominal GDP (Millions of US dollars)	443.5	435.4	422.3			427.7	422.9	438.3	460.4	478.4	496.2		573.1	764.6	
Nominal dollar GDP growth	-1.3	-1.8	-3.0			1.3	-1.1	3.7	5.0	3.9	3.7	2.7	2.9	2.9	2.9
PV of PPG external debt (in Millions of US dollars)			133.4			137.4	148.4	157.6	168.4	170.6	171.4		205.3	344.6	
(PVt-PVt-1)/GDPt-1 (in percent)						1.0	2.6	2.2	2.5	0.5	0.2	1.5	1.4	2.0	1.8
Gross workers' remittances (Millions of US dollars)	102.7	102.2	112.2			117.4	124.3	130.4	136.0	141.5	147.2		171.9	229.4	
PV of PPG external debt (in percent of GDP + remittances)	...	...	24.8			26.5	27.5	27.7	28.2	27.6	26.7		27.6	34.7	
PV of PPG external debt (in percent of exports + remittances)	...	...	67.0			68.9	67.4	67.5	69.4	67.8	65.5		65.9	78.7	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	3.3			3.2	2.9	7.6	7.5	7.4	7.1		6.4	5.0	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

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

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate 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 2a. Tonga: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt Excluding Remittances, 2017–37

(In percent)

	Projections							
	2017	2018	2019	2020	2021	2022	**2027**	2037
PV of debt-to GDP ratio								
Baseline	34	36	36	37	36	35	**36**	45
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	34	34	34	36	35	34	**38**	44
A2. New public sector loans on less favorable terms in 2017-2037 2	34	36	39	42	42	42	**51**	75
A3. Severe Natural Disaster in 2018	32	42	46	47	46	45	**45**	51
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	34	37	39	40	39	38	**39**	49
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	34	38	44	44	43	42	**44**	51
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	34	36	39	40	39	38	**39**	50
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	34	49	65	65	65	63	**66**	67
B5. Combination of B1-B4 using one-half standard deviation shocks	34	48	69	70	69	67	**70**	71
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	34	51	52	53	52	50	**52**	66
PV of debt-to-exports ratio								
Baseline	156	152	153	158	155	149	**147**	165
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	156	146	145	154	152	148	**154**	159
A2. New public sector loans on less favorable terms in 2017-2037 2	156	155	166	179	182	182	**211**	273
A3. Severe Natural Disaster in 2018	148	178	198	203	200	194	**185**	188
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	156	150	153	158	154	149	**147**	165
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	156	205	290	298	293	284	**280**	290
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	156	150	153	158	154	149	**147**	165
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	156	209	277	282	279	274	**271**	244
B5. Combination of B1-B4 using one-half standard deviation shocks	156	226	326	332	328	322	**318**	287
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	156	150	153	158	154	149	**147**	165
PV of debt-to-revenue ratio								
Baseline	133	126	133	131	139	134	**140**	175
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	133	121	127	128	136	133	**147**	169
A2. New public sector loans on less favorable terms in 2017-2037 2	133	129	144	149	163	163	**200**	289
A3. Severe Natural Disaster in 2018	126	147	172	169	179	175	**176**	199
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	133	130	146	143	151	147	**152**	191
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	133	135	162	159	169	164	**171**	197
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	133	127	146	144	152	147	**153**	192
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	133	174	241	235	250	246	**257**	259
B5. Combination of B1-B4 using one-half standard deviation shocks	133	172	256	249	266	261	**273**	275
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	133	181	194	191	201	195	**203**	254

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

(In percent)

				Debt service-to-exports ratio				
Baseline	7	7	17	17	17	16	**14**	10
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	7	6	16	16	16	16	**13**	10
A2. New public sector loans on less favorable terms in 2017-2037 2	7	7	17	17	18	18	**18**	17
A3. Severe Natural Disaster in 2018	7	6	18	18	18	17	**19**	14
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	7	7	17	17	17	16	**14**	10
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	7	8	27	28	28	27	**24**	19
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	7	7	17	17	17	16	**14**	10
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	7	7	19	21	20	20	**18**	18
B5. Combination of B1-B4 using one-half standard deviation shocks	7	7	22	24	24	23	**21**	21
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	7	7	17	17	17	16	**14**	10
				Debt service-to-revenue ratio				
Baseline	6	5	15	14	15	15	**14**	11
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	6	5	14	14	14	14	**13**	10
A2. New public sector loans on less favorable terms in 2017-2037 2	6	5	15	15	16	16	**17**	18
A3. Severe Natural Disaster in 2018	6	5	15	15	16	15	**18**	15
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	6	6	16	16	16	16	**15**	12
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	6	5	15	15	16	15	**14**	13
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	6	6	16	16	17	16	**15**	12
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	6	5	16	17	18	18	**17**	19
B5. Combination of B1-B4 using one-half standard deviation shocks	6	5	17	18	20	19	**18**	20
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	6	8	22	21	22	21	**20**	16
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	40	40	40	40	40	40	**40**	40

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 assumingan 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 2b. Tonga: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt Including Remittances, 2017–37

(In percent)

	Projections							
	2017	2018	2019	2020	2021	2022	**2027**	2037
PV of debt-to-GDP+remittances ratio								
Baseline	27	28	28	28	28	27	**28**	35
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	27	27	27	28	27	27	**30**	35
A2. New public sector loans on less favorable terms in 2017-2037 2	27	28	30	32	32	32	**40**	57
A3. Severe Natural Disaster in 2018								
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	27	28	30	30	29	29	**29**	37
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	27	29	34	34	34	33	**34**	39
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	27	28	30	30	30	29	**30**	37
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	27	42	56	51	50	49	**51**	51
B5. Combination of B1-B4 using one-half standard deviation shocks	27	41	59	52	51	50	**52**	53
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	27	36	37	37	36	35	**36**	46
PV of debt-to-exports+remittances ratio								
Baseline	69	67	68	69	68	65	**66**	79
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	69	67	66	69	69	67	**73**	85
A2. New public sector loans on less favorable terms in 2017-2037 2	69	69	73	79	80	80	**94**	130
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	69	66	67	69	68	65	**66**	79
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	69	79	98	100	98	95	**96**	107
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	69	66	67	69	68	65	**66**	79
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	69	123	165	124	122	120	**121**	116
B5. Combination of B1-B4 using one-half standard deviation shocks	69	123	176	128	126	123	**125**	121
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	69	66	67	69	68	65	**66**	79
PV of debt-to-revenue ratio								
Baseline	133	126	133	131	139	134	**140**	175
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	133	121	127	128	136	133	**147**	169
A2. New public sector loans on less favorable terms in 2017-2037 2	133	129	144	149	163	163	**200**	289
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	133	130	146	143	151	147	**152**	191
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	133	135	162	159	169	164	**171**	197
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	133	127	146	144	152	147	**153**	192
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	133	174	241	235	250	246	**257**	259
B5. Combination of B1-B4 using one-half standard deviation shocks	133	172	256	249	266	261	**273**	275
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	133	181	194	191	201	195	**203**	254

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

(In percent)

Debt service-to-exports+remittances ratio								
Baseline	3	3	8	7	7	7	**6**	5
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	3	3	7	7	7	7	**6**	5
A2. New public sector loans on less favorable terms in 2017-2037 2	3	3	8	8	8	8	**8**	8
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	3	3	8	7	7	7	**6**	5
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	3	3	9	9	9	9	**8**	7
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	3	3	8	7	7	7	**6**	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	3	4	11	9	9	9	**8**	8
B5. Combination of B1-B4 using one-half standard deviation shocks	3	4	12	9	9	9	**8**	9
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	3	3	8	7	7	7	**6**	5
Debt service-to-revenue ratio								
Baseline	6	5	15	14	15	15	**14**	11
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	6	5	14	14	14	14	**13**	10
A2. New public sector loans on less favorable terms in 2017-2037 2	6	5	15	15	16	16	**17**	18
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	6	6	16	16	16	16	**15**	12
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	6	5	15	15	16	15	**14**	13
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	6	6	16	16	17	16	**15**	12
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	6	5	16	17	18	18	**17**	19
B5. Combination of B1-B4 using one-half standard deviation shocks	6	5	17	18	20	19	**18**	20
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	6	8	22	21	22	21	**20**	16
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	40	40	40	40	40	40	**40**	40

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 assumingan 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. Tonga: 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/	47.1	51.4	49.2			51.2	53.5	54.2	55.6	55.4	54.7		59.7	71.5	
of which: foreign-currency denominated	41.9	45.2	41.7			45.0	47.4	48.5	50.0	50.0	49.5		55.3	68.3	
Change in public sector debt	-2.1	4.3	-2.2			2.0	2.3	0.7	1.4	-0.2	-0.7		1.1	0.8	
Identified debt-creating flows	-8.6	7.4	-2.7			2.4	0.8	-0.7	1.8	-0.1	-0.6		1.2	1.7	
Primary deficit	-7.3	1.8	-0.4	-2.8	2.8	-0.4	1.4	0.9	3.3	0.8	0.3	1.1	1.6	2.2	1.8
Revenue and grants	28.8	28.1	29.1			30.5	32.0	30.3	31.0	30.7	30.8		30.3	30.4	
of which: grants	8.2	5.6	5.8			5.1	3.8	3.3	3.1	5.0	5.0		4.6	4.6	
Primary (noninterest) expenditure	21.5	29.9	28.7			30.1	33.4	31.2	34.3	31.6	31.1		31.9	32.6	
Automatic debt dynamics	-1.3	5.6	-2.2			2.8	-0.6	-1.6	-1.6	-1.0	-0.9		-0.5	-0.6	
Contribution from interest rate/growth differential	-0.9	-1.5	-1.7			-1.0	-1.7	-1.6	-1.6	-1.1	-1.0		0.0	0.0	
of which: contribution from average real interest rate	0.1	0.2	-0.1			0.3	0.0	-0.1	-0.1	0.0	0.0		0.6	0.8	
of which: contribution from real GDP growth	-1.0	-1.7	-1.7			-1.3	-1.7	-1.6	-1.5	-1.0	-1.0		-0.6	-0.8	
Contribution from real exchange rate depreciation	-0.4	7.1	-0.5			3.7	1.1	0.0	0.0	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	6.6	-3.1	0.5			-0.4	1.5	1.4	-0.3	-0.1	-0.1		0.0	-0.9	
Other Sustainability Indicators															
PV of public sector debt	...	...	38.8			40.0	41.6	41.7	42.2	41.1	39.8		40.3	48.4	
of which: foreign-currency denominated	...	...	31.4			33.8	35.6	36.0	36.6	35.7	34.6		35.9	45.1	
of which: external	...	...	31.4			33.8	35.6	36.0	36.6	35.7	34.6		35.9	45.1	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	-4.9	4.2	1.9			1.3	3.1	5.1	4.9	4.9	4.3		5.3	5.3	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	133.5			131.4	130.0	137.5	136.0	133.7	129.3		133.1	159.2	
PV of public sector debt-to-revenue ratio (in percent)	...	...	167.0			157.6	147.6	154.2	151.3	159.4	154.4		156.8	187.4	
of which: external 3/	...	...	134.9			133.2	126.1	133.2	131.2	138.6	134.3		139.6	174.9	
Debt service-to-revenue and grants ratio (in percent) 4/	8.5	8.5	8.2			5.6	5.4	13.9	13.3	13.2	12.8		12.1	10.0	
Debt service-to-revenue ratio (in percent) 4/	11.8	10.6	10.2			6.7	6.1	15.6	14.8	15.8	15.3		14.3	11.8	
Primary deficit that stabilizes the debt-to-GDP ratio	-5.2	-2.4	1.7			-2.3	-0.9	0.2	1.9	1.1	1.0		0.5	1.4	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	2.1	3.7	3.4	1.5	2.8	2.7	3.4	3.0	2.9	1.9	1.9	2.6	1.1	1.1	1.1
Average nominal interest rate on forex debt (in percent)	1.7	1.6	1.6	1.6	0.4	1.6	1.6	1.7	1.9	1.9	1.8	1.8	2.0	2.0	1.9
Average real interest rate on domestic debt (in percent)	2.6	1.5	-4.0	-1.0	3.3	4.2	0.9	0.8	0.9	1.2	1.4	1.6	2.0	3.4	2.4
Real exchange rate depreciation (in percent, + indicates depreciation)	-1.0	17.5	-1.1	-0.3	10.5	9.2	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	1.0	1.5	7.1	3.3	3.2	-2.1	2.2	2.1	2.1	2.1	2.1	1.4	2.1	2.1	2.1
Growth of real primary spending (deflated by GDP deflator, in percent)	-13.8	44.5	-0.9	3.0	15.2	7.9	14.9	-3.9	13.3	-6.4	0.4	4.4	1.2	1.3	1.4
Grant element of new external borrowing (in percent)	...	...	...	...	...	55.8	43.5	32.8	33.8	45.7	47.7	43.2	39.9	38.7	...

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.