INTERNATIONAL MONETARY FUND

IMF Country Report No. 18/209

TUVALU

July 2018

2018 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR TUVALU

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 2018 Article IV consultation with Tuvalu, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its June 22, 2018 consideration of the staff report that concluded the Article IV consultation with Tuvalu.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on June 22, 2018, following discussions that ended on April 19, 2018, with the officials of Tuvalu on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on June 8, 2018.
- An **Informational Annex** prepared by the IMF staff.
- A **Debt Sustainability Analysis** prepared by the staffs of the IMF and the International Development Association.
- A **Statement by the Executive Director** for Tuvalu.

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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INTERNATIONAL MONETARY FUND

COMMUNICATIONS DEPARTMENT

Press Release No. 18/277
FOR IMMEDIATE RELEASE
July 5, 2018

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

IMF Executive Board Concludes 2018 Article IV Consultation with Tuvalu

On June 22, 2018, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Tuvalu.

Tuvalu has maintained macroeconomic stability. Real GDP growth is estimated to have risen to 3.2 percent in 2017 on large infrastructure and housing projects, in preparation for the Polynesian Leaders' Summit in 2018 and the Pacific Forum Secretariat Summit in 2019. Inflation accelerated to 4.4 percent in 2017 due to higher food and transportation prices. Reserve coverage is broadly sufficient at 9 months of imports at end-2017. The fiscal balance turned into a deficit of 4 percent of GDP in 2017 on lower fishing revenue and higher capital expenditure in preparation for the two regional summits.

The macroeconomic outlook is broadly positive. In 2018, growth is projected to accelerate to 4.3 percent on higher fiscal expenditure and infrastructure projects. Inflation is expected to reach 4 percent on higher public wages, partly offset by moderating food prices. In the medium term, growth is expected to remain robust at 4 percent, factoring in the implementation of infrastructure projects funded by development partners, including the Green Climate Fund. Reserves are expected to remain sufficient at 10 months of imports at end-2018. The fiscal balance is projected to turn into a surplus of 6 percent of GDP in 2018, on higher fishing revenue.

[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.

Since joining the Fund in 2010, Tuvalu's macroeconomic performance has improved. The fiscal deficit has narrowed and fiscal buffers have been replenished partly on strong fishing revenue. The authorities have also made progress in strengthening climate change resilience.

Nonetheless, the economy remains susceptible to downside risks, reflecting climate change and natural disasters, volatile fishing revenues, reliance on external grants, weak state-owned enterprises, and limited financial supervision.

Executive Board Assessment[2]

Executive Directors commended the authorities for the improved macroeconomic performance and for their work on strengthening climate change resilience. Directors welcomed the broadly positive outlook but noted that Tuvalu remains highly susceptible to external shocks, especially to climate change effects and uncertainties stemming from volatile fishing revenues and reliance on grants. The country's geographical remoteness, small size, and limited infrastructure pose additional challenges. Directors emphasized that strong commitment to sound policies and structural reforms is necessary to build resilience to shocks and generate sustainable growth.

Directors welcomed the progress made in promoting climate change resilience, including securing access to the Green Climate Fund. Going forward, Directors highlighted the importance of ensuring continuous access to multilateral climate change schemes. They noted that the priorities are implementing reforms under the PFM Roadmap, exploring multilateral risk-sharing mechanisms, and improving the financial management of the Tuvalu Survival Fund.

Directors underscored that strengthening the medium-term fiscal framework is key to macroeconomic stability. They emphasized that undertaking gradual fiscal consolidation should help contain fiscal and debt pressures, and build fiscal buffers. In this context, they encouraged the authorities to mobilize tax revenue, eliminate tax exemptions, and contain current spending. Prioritizing capital spending and strengthening fishing revenue forecasts will also be important. Directors also encouraged accelerating reforms of state-owned enterprises, including raising electricity tariffs and linking them to oil price changes.

Directors emphasized that greater financial sector oversight will help tackle the high non-performing loans, increase financial sector efficiency, and promote financial inclusion. They stressed the need for a financial supervisory framework covering the two banks and the pension fund. Directors called for measures to improve credit risk management of the Development Bank, enforce existing financial regulations, and develop bankruptcy legislation.

[2] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summing up can be found here: http://www.imf.org/external/np/sec/misc/qualifiers.htm.

Directors emphasized that structural reforms aimed at increasing potential output and diversifying the growth base are critical. They encouraged the authorities to give priority to stimulating private sector development by improving the business environment. Directors called for stepped up efforts to strengthen human capital, develop tourism and goods exports, and enhance water resource management. They noted that continued action to enhance macroeconomic statistics will assist in policy formulation and agreed that technical assistance from the Fund will be helpful.

Tuvalu: Selected Social and Economic Indicators, 2015–2019 1/

	2015 Est.	2016 Est.	2017 Est.	2018 Proj.	2019 Proj.
Real sector					
Real GDP growth	9.1	3.0	3.2	4.3	4.1
Consumer price inflation (end of period)	4.0	2.6	4.4	4.0	3.4
Government finance					
Revenue and grants	136	138	122	161	113
Revenue	102	113	97	118	82
Of which: Fishing license fees	51	68	50	80	46
Grants	34	25	25	43	32
Total expenditure	121	131	126	155	118
Current expenditure	99	111	97	103	101
Capital expenditure 1/	22	19	29	52	17
Overall balance	15	7	-4	6	-4
Of which: Domestic Current balance 2/	-47	-67	-49	-65	-65
Financing	-15	-7	4	-6	4
Consolidated Investment Fund	15	7	-4	6	-4
Tuvalu Trust Fund (in percent of GDP)	318	336	333	315	299
Consolidated Investment Fund (in percent of GDP)	55	55	42	59	55
Tuvalu Survival Fund (in percent of GDP)	…	10	10	14	17
Monetary Sector					
Credit growth (percent change) 3/	3	13	6	6	5
Balance of payments (in percent of GDP)					
Current account balance	-53	23	6	5	-1
Goods and services balance	-216	-135	-141	-154	-140
Capital and financial account balance	74	5	-2	9	8
Of which: capital transfers	19	23	16	11	11
Overall balance	21	28	4	14	7
Gross reserves 4/					
In $A million	57	70	73	81	85
In months of prospective imports of goods and services	9	10	9	10	10
Debt indicators					
Gross public debt	57	47	37	28	22
External	53	45	37	28	22
Domestic	3	2	0	0	0
Exchange rates					
Australian dollar per U.S. dollars (Period average)	1.33	1.34	1.30	…	…
Australian dollar per U.S. dollars (End-period)	1.38	1.36	1.31	…	…
Real effective exchange rate (2010=100)	104	108	113	…	…
Nominal GDP (In $A million)	47	49	53	57	61

Sources: Tuvalu authorities; PFTAC; SPC; ADB; World Bank; 2018 IMF's BOP TA; and IMF staff estimates and projections.

1/ Includes Special Development Fund and infrastructure investment.

2/ Domestic current balance excludes fishing revenue, grants, and capital expenditure.

3/ Banks' and pension fund lending to non-government domestic sector.

INTERNATIONAL MONETARY FUND

TUVALU

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION

June 7, 2018

KEY ISSUES

Context. Tuvalu is a fragile micro state. The country's remoteness, narrow production base, and weak banking sector constrain private sector activity, leaving public expenditure as the main source of growth. The DSA finds that Tuvalu remains at high risk of debt distress.

Outlook. The macroeconomic outlook is broadly positive in the near term. Growth is accelerating on capital expenditure and infrastructure projects funded by development partners. Inflation is expected to remain elevated, reflecting the growth outlook and public wage increases. Risks are to the downside, reflecting climate change and natural disasters, volatile fishing revenues, reliance on external grants, weak state-owned enterprises, and limited financial supervision.

Main Policy Recommendations.

- **Promote resilience to external shocks.** Policy priorities include continuing to improve climate change risk management and undertaking gradual fiscal consolidation to maintain buffers against shocks. Fiscal consolidation requires strengthening the medium-term fiscal framework, containing current spending, prioritizing capital spending, mobilizing tax revenue, and accelerating SOE reform.

- **Broaden the private-sector growth base.** Macro-structural policies that increase potential output and diversify the growth base are crucial. These include the development of human capital and promotion of tourism. It is also critical to enhance bank credit intermediation by putting in place a financial supervisory framework (covering the banks and the pension fund), improving enforcement of existing financial regulations, and developing bankruptcy legislation. Continued efforts to strengthen macroeconomic statistics will also assist policy formulation.

Approved By
James Daniel and Kevin Fletcher

Discussions for the 2018 Article IV Consultation were held in Funafuti during April 9-19, 2018. The mission comprised Jongsoon Shin (head, SPR), Sonja Davidovic (KMU), and Chau Nguyen (APD). The team was supported by Hunter Leni and Pule Sukanaivalu (all APD, Fiji Office). Mr. Michael Kikiolo (OED) joined the mission. Ms. Alizeh Amer (APD) assisted in preparation of this report.

CONTENTS

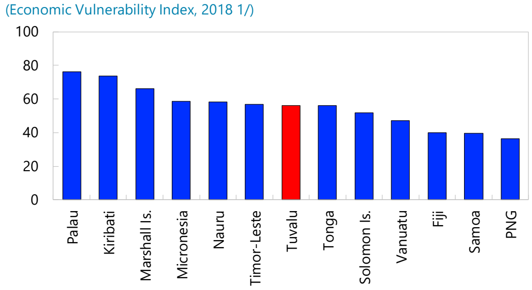
CONTEXT

1. Tuvalu is a fragile micro state, facing existential threats from climate change. As a low-lying atoll, Tuvalu is one of the most vulnerable countries to the effects of climate change and natural disasters. Rising sea levels threaten to greatly diminish Tuvalu's arable land area. Building climate change resilience through infrastructure investment while simultaneously strengthening resilience against external shocks through strong fiscal balances is essential for sustainable growth in the long run.

2. Since joining the Fund in 2010, Tuvalu's macroeconomic performance has improved. The fiscal deficit has narrowed, and fiscal buffers have been replenished partly on strong fishing revenue. The authorities have made progress in strengthening climate change resilience and improving public financial management.

3. Nonetheless, Tuvalu continues to face significant challenges. The economy remains susceptible to external shocks, including those stemming from natural disasters and high dependence on volatile fishing revenue and donor grants. Rising public expenditure also threatens fiscal sustainability. While public expenditure is the main growth driver, private sector activity is limited due to the economy's narrow production base and banks' constrained lending. The unemployment rate reached 37 percent in 2017, revealing challenges in generating employment opportunities.

Tuvalu Among Most Vulnerable
(Economic Vulnerability Index, 2018 1/)



Sources: United Nations - Committee for Development Policy, *2018 triennial review*.
1/ The index is a composition of eight indicators, including population, remoteness, export concentration, impact of natural disasters, etc.

4. Discussions focused on policies to promote resilience to external shocks. This requires (1) strengthening the medium-term fiscal framework to maintain buffers and improve climate change risk management and (2) macro-structural policies that increase potential output and diversify the growth base, which in turn include developing human capital, promoting tourism, and improving financial intermediation and supervision.

RECENT DEVELOPMENTS, OUTLOOK, AND RISKS

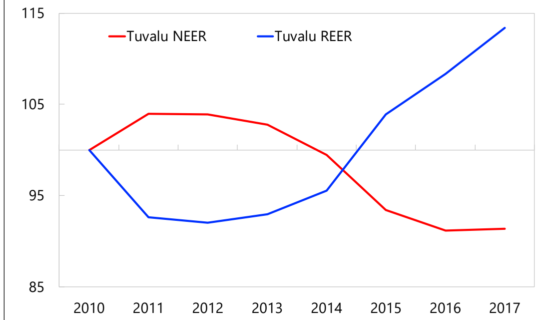
5. Recent developments

- ***Real GDP growth*** is estimated to have risen to 3.2 percent in 2017 on large infrastructure and housing projects, in preparation for the Polynesian Leaders' Summit in 2018 and the Pacific Forum Secretariat Summit in 2019.

- ***Inflation*** accelerated to 4.4 percent in 2017 due to higher food and transportation prices.

- ***The balance of payments*** was estimated to be in a surplus in 2017, partly due to increased donor grants, although data constraints hamper analysis of balance of payments developments, as the last official data are from 2012. Tuvalu uses the Australian dollar as a legal tender. Tuvalu's Real Effective Exchange Rate (REER) appreciated in recent few years due to inflationary pressures related to higher food prices, transportation costs, and expansionary fiscal policy. Reserve coverage is broadly sufficient at 9 months of imports at end-2017. Staff assesses that Tuvalu's external position in 2017 was broadly in line with medium-term fundamentals and desirable policies (Appendix II).

Tuvalu's REER Appreciated Due to Relatively High Inflation
(Index, 2010 = 100)



Sources: IMF *WEO database*; and IMF staff calculations.

- ***Lending growth*** slowed to 6 percent (y/y) in 2017 amid elevated non-performing loans (NPLs) constraining banks' lending capacity.

- ***The fiscal balance*** turned into a deficit of 4 percent of GDP in 2017 on lower fishing revenue and higher capital expenditure in preparation for the two regional summits. The deficit was financed by the Consolidated Investment Fund (CIF), bringing its balance down to 42 percent of GDP. The balance of the Tuvalu Survival Fund (TSF), which finances climate change programs, stood at 10 percent of GDP. Public debt declined to 37 percent of GDP. As a result, the government's net financial worth—consisting of the CIF, the TSF, and public debt—fell to 14 percent of GDP at end-2017. The value of the Tuvalu Trust Fund (TTF) was broadly stable at 333 percent of GDP. The TTF, which is funded mainly by donors, makes distributions to the CIF when the TTF's balance exceeds its "maintained value"—a baseline that is adjusted in line with the Australian CPI (Appendix III).

Government's Net Financial Worth (In percent of GDP)

	2015	2016	2017	2018 (proj.)
Government's Net Financial Worth 1/	-2	18	14	44
Consolidated Investment Fund (CIF)	55	55	42	59
Tuvalu Survival Fund (TSF) 2/	…	10	10	14
Public Debt	57	47	37	28
Tuvalu Trust Fund	318	336	333	315

1/ Consists of the Consoliated Invesment Fund (CIF), the Tuvalu Survival Fund (TSF), and public debt; and excludes the TTF, as it is not fully sovereign and cannot be drawn freely.
2/ Established to finance climate change related programs.

6. Outlook

- In 2018, ***growth*** is projected to accelerate to 4.3 percent on higher fiscal expenditure and infrastructure projects. ***Inflation*** is expected to reach 4 percent on higher public wages to compensate increased living costs and retain staff in the public administration, partly offset by moderating food prices. In the medium term, growth is expected to remain robust at 4 percent, factoring in the implementation of infrastructure projects funded by development partners, including the Green Climate Fund. The projection also incorporates the average cost of natural disasters at around 1 percent of GDP per year. Inflation is projected to slow to 3 percent in the medium term, moving closer to the Australian inflation rate.

- ***The fiscal balance*** is projected to weaken in the medium term following a surplus in 2018.

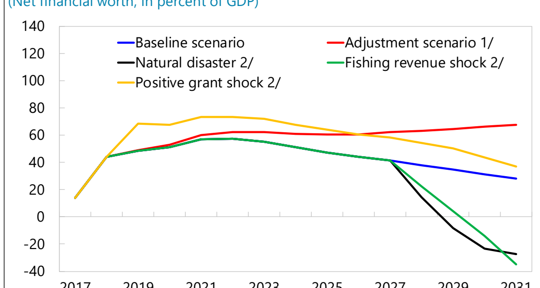
  - The fiscal balance is projected to turn into a surplus of 6 percent of GDP in 2018 due to higher fishing revenue. Parliament passed a supplementary budget in April 2018. The revised budget includes a one-off receipt of fishing revenue from a sub-regional pooling scheme accumulated since 2012 (34 percent of GDP), increased capital expenditure (15 percent of GDP), and a reserve build-up in the CIF (19 percent of GDP). The domestic current deficit—which excludes fishing revenue, grants, and capital expenditure—is projected to widen to 65 percent of GDP in 2018 from 35 percent of GDP in 2013 due to rising current spending. The government's net financial worth is projected at 44 percent of GDP at end-2018 due to the replenished CIF balance.

  - In the medium term, the fiscal deficit is projected to widen to 5 percent of GDP, and 7 percent of GDP in the long term. Key drivers are moderating fishing revenues with the waning of the El Nino cycle and declining grant allocations based on conservative assumptions. Current spending is projected to remain elevated at around 100 percent of GDP. Capital spending is projected at around 10 percent of GDP, but would decline gradually due to limited fiscal space. The domestic current deficit is projected to remain wide at 65 percent of GDP in the medium term.

- ***The balance of payments*** is projected to remain in a surplus in 2018 due to strong fishing license revenue. The REER is expected to appreciate further due to relatively high inflation, with the pace of appreciation declining over the medium term as inflation moderates. Reserves are expected to remain sufficient at 10 months of imports at end-2018.

- ***Public debt.*** The Debt Sustainability Analysis (DSA) suggests that Tuvalu remains at a high risk of debt distress, in line with the 2016 DSA conclusion. A persistent fiscal deficit is projected to cause the debt-to-GDP level to breach the DSA's indicative threshold for a high-risk rating in

Net Financial Worth is Projected to Decline Under Baseline
(Net financial worth, in percent of GDP)



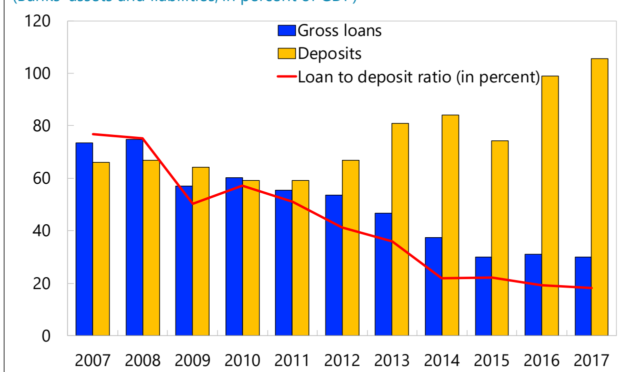
Sources: IMF staff estimates.
1/ For details, see paragraph 11.
2/ For details, see DSA.

the long run. Net financial worth is expected to fall below 50 percent of GDP by 2025 under the baseline. In adverse scenarios, natural disasters or a sharp fall in fishing revenue could accelerate the depletion of fiscal buffers. In an upside scenario, sustained donor grants could help keep the debt-to-GDP level below the indicative threshold (see the accompanying DSA).

- The financial performance of the **Tuvalu Trust Fund (TTF)** is projected to moderately exceed the fund's maintained value, allowing continued transfers from the TTF to the Consolidated Investment Fund (CIF).

7. Financial sector. The banking sector's performance is weak, and credit growth provides only modest support to growth. Tuvalu's banking sector comprises two public banks – the National Bank of Tuvalu (NBT) and the Development Bank of Tuvalu (DBT). Outstanding loans declined to 30 percent of GDP in 2017 from 54 percent of GDP in 2012, with the loan-to-deposit ratio falling to 20 percent. Banks' lending is constrained by high NPLs and insufficient risk management due to an inadequate supervisory framework. NPLs constitute 41 percent of total loans, primarily to the Tuvalu Electricity Corporation (TEC) and impaired housing loans. The absence of bankruptcy laws undermines NPL write-off, while a weak credit culture further dampens banks' willingness to lend. Against this backdrop, credit growth is expected to remain moderate in the medium term.

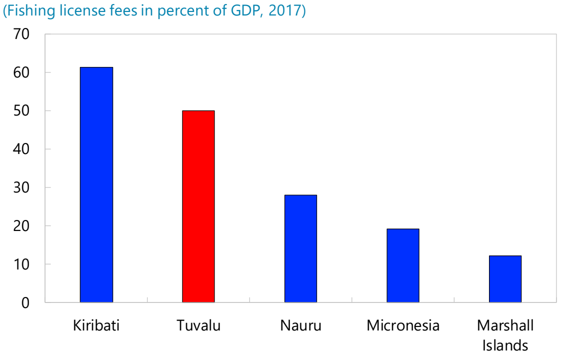
Declining Loans Indicate Weak Credit Intermediation
(Banks' assets and liabilities, in percent of GDP)



Sources: Country authorities; and IMF staff calculations.

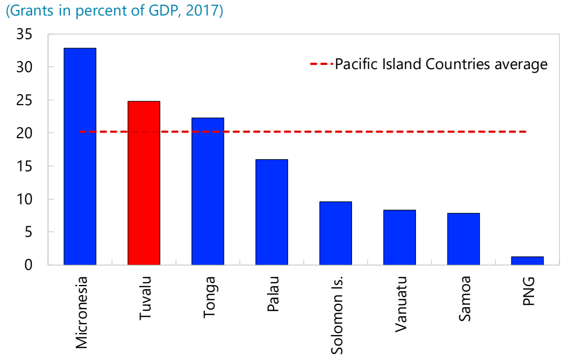
8. Risks to the outlook. The economy is highly susceptible to the effects of climate change and natural disasters. Tropical Cyclone Pam in 2015 caused damage worth 33 percent of GDP. The government's revenue base is also facing uncertainties stemming from volatile fishing revenues and reliance on grants. The lack of financial supervision and weak balance sheets of the state-owned enterprises (SOEs) create risks to the fiscal accounts and impede banks' credit intermediation. On the upside, grants could remain substantial, supporting the fiscal accounts and accelerating infrastructure development (Appendix I).

Fishing Revenue Among Higest
(Fishing license fees in percent of GDP, 2017)



Sources: Country authorities, and IMF staff estimates.

Grants Among Highest
(Grants in percent of GDP, 2017)



Sources: Country authorities; and IMF, *World Economic Outlook*.

***Authorities' Views*.**

9. The authorities broadly concur with staff's macroeconomic outlook and risks. They noted that continuous capital investment will support economic growth in the coming years, but containing current spending is necessary. With the monetary policy lever absent, they see only limited scope to contain inflation, which is driven by supply-side factors, such as global food prices. They agreed on the risk factors facing the economy.

BUILDING RESILIENCE AGAINST CLIMATE CHANGE AND OTHER EXTERNAL SHOCKS

A. Enhance the Policy Framework to Mitigate Climate Change Effects

10. The authorities have made progress in strengthening climate change resilience. The cost of coastal protection projects is estimated at 84 percent of GDP. To finance these projects, the government has mobilized multilateral financing schemes. Tuvalu is the first Pacific economy that secured access to the Green Climate Fund in 2017. The Tuvalu Costal Adaptation Project (TCAP) will run through 2025 with a total cost of 74 percent of GDP (Box 1). The Tuvalu Infrastructure and Investment Plan for 2016-25 has also prioritized climate change resilience. To strengthen implementation capacity, the government has adopted the Public Financial Management (PFM) Roadmap 2017–21. Policy coordination has improved with the establishment of the National Advisory Council on Climate Change (NACCC), which reports directly to the Cabinet.

11. Given its substantial cost, it is critical to build climate change resilience in a fiscally sustainable manner. The priority is to ensure continuous access to multilateral climate change schemes, while making sure those funds are used efficiently. Strengthening the PFM framework by implementing reforms under the PFM Roadmap 2017-21 will support the quality of capital expenditure and facilitate continuous access to international financing schemes. The authorities could explore multilateral risk-sharing mechanisms, such as the Pacific Island Insurance Facility (PIFIC). There is room to improve the investment management of the Tuvalu Survival Fund (TSF), currently deposited at the National Bank.

Box 1. Tuvalu Coastal Adaptation Project (TCAP)

Overview. The Tuvalu Coastal Adaptation Project (TCAP), financed by the Green Climate Fund (GCF), runs through 2025 with a total cost of 74 percent of GDP and the government's co-financing of 6 percent of GDP. It is expected to cover the majority of coastal protection costs (86 percent of GDP) identified under the Infrastructure and Investment Plan for 2016-25. The UNDP manages the fund and projects, with GCF funds disbursed directly to suppliers engaged in the project through an international bidding process.

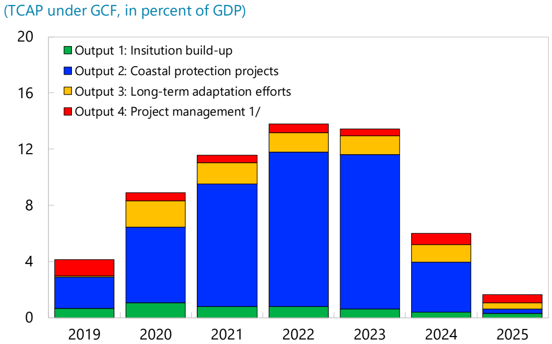
Program modality. Annual funding allocations under the GCF are contingent on a 70 percent completion rate of specified annual targets. The program comprises three main output categories:

- **Output 1: Strengthening institutions and building capacity for resilient coastal management.** This includes recruiting environmental experts, developing a shoreline monitoring platform, and hosting environmental awareness sessions. Long-term capacity building includes scholarship programs for areas pertinent to the project, like civil engineering and geo-spatial science. Output 1 is on track to be completed by June 2018, which will unlock the disbursement of the next tranche for Output 2.

- **Output 2: Implementing coastal protection projects.** This accounts for 70 percent of the total project costs. Output 2 aims to reduce vulnerabilities of coastal infrastructure against damage resulting from climate change effects. It also includes coastal protection design, site-specific assessments, and environmental and social impact assessments in all islands in a participatory manner. Output 2 will commence in June 2018.

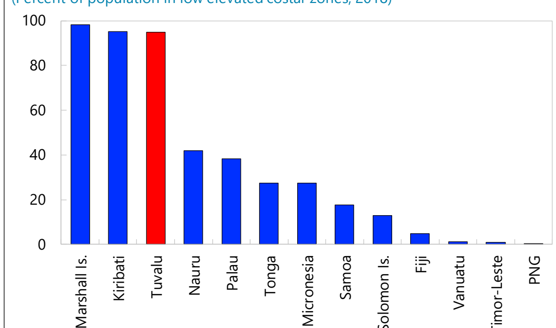
- **Output 3: Establishing a sustainable financing mechanism for long-term adaptation efforts.** This requires all island strategic plans and annual budgets to integrate island-specific climate risks. This will help strengthen the capacity of local administrations and communities for monitoring progress in adaptation investments as an integral element of island strategic plans.

Tuvalu Coastal Adaptation Project (TCAP) is Substantial
(TCAP under GCF, in percent of GDP)



Sources: UNDP; and IMF staff estimates.
1/ Administrative spending.

TCAP is Critical for Population Living on Atoll Islands
(Percent of population in low elevated costal zones, 2018)



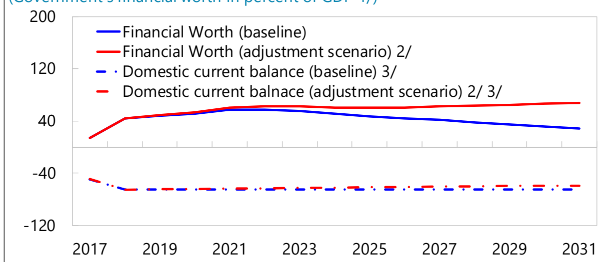
Sources: United Nations - Committee for Development Policy, *2018 triennial review.*

B. Strengthen the Medium-Term Fiscal Policy Framework and Fiscal Buffers

12. The projected widening of the fiscal deficit over the medium term calls for gradual consolidation to maintain buffers.

- Given uncertain fishing revenue and grants and the potential costs of natural disasters, it is critical to strengthen the fiscal framework and maintain sufficient buffers. For Tuvalu, the domestic current balance would be a useful operational target because it abstracts from volatile, exogenous components of the fiscal accounts. This approach also promotes expenditure stability and focuses on items directly within the government's control.

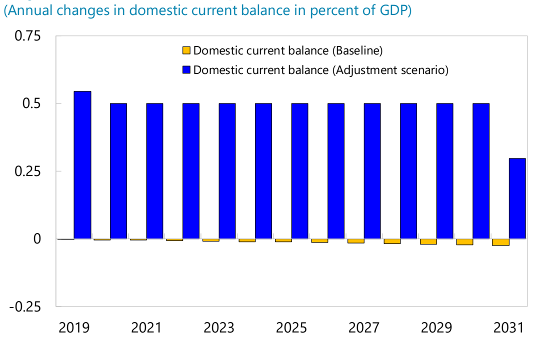
Adjustment Scenario Projects Sufficient Net Financial Worth
(Government's financial worth in percent of GDP 1/)



Sources: IMF staff estimates.
1/ Consists of Consolidated Investment Fund, Tuvalu Survival Fund, and Public Debt.
2/ Assumes fiscal consolidation of domestic current balance of 0.5 percentage point of GDP each year until 2027.
3/ Domestic current balance is the overall balance minus fishing licens fees and grants, plus capital expenditure.

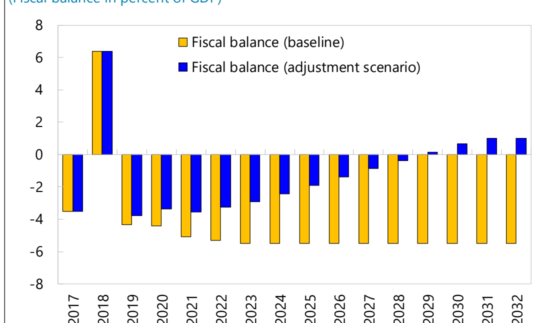
- Under staff's adjustment scenario, the government sets the domestic current balance as the operational target to maintain a sustainable fiscal position. The government gradually reduces the domestic current deficit by ½ percentage point of GDP each year until 2030. The domestic current deficit would narrow by 6 percentage points in the next decade and fall to 59 percent of GDP in 2030, compared to 65 percent of GDP under the baseline. In 2031, the fiscal balance would reach a surplus of 1 percent of GDP, which would be maintained thereafter. This gradual consolidation is projected to help maintain the government's net financial worth at around 70 percent of GDP in the long term. This level would be sufficient to buffer most shocks, including a sharp decline in fishing revenue (40 percent of GDP) or natural disasters (20-30 percent of GDP).

Adjustment Scenario Requires Gradual Fiscal Consolidation
(Annual changes in domestic current balance in percent of GDP)



Sources: IMF staff estimates.

Adjustment Scenario Leads to Small Fiscal Surplus in The Long Run
(Fiscal balance in percent of GDP)



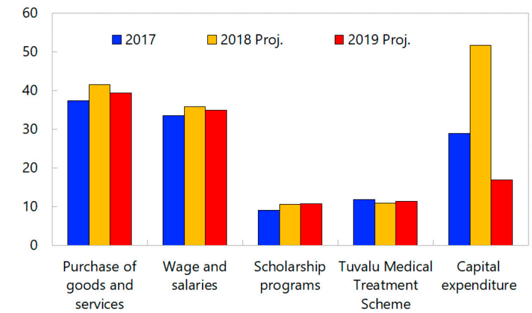
Sources: IMF staff estimates.

13. Improving the fiscal balance requires containing current spending and prioritizing capital spending.

- **Current spending.** The authorities should curb rising current spending, while improving spending efficiency. The authorities should keep the public wage bill in check with development partners' assistance (e.g., the World Bank's wage bill modeling). The authorities should control rising official travel costs and develop a more cost-effective strategy to build institutional capacity.

- **Healthcare costs.** The authorities need to reform the overseas medical treatment program, which increased 7 times relative to GDP in the past decade and accounts for half of total healthcare spending. The policy priority is to closely monitor and evaluate overseas spending and rationalize medical travel benefits. A medium-term strategy should include introducing a healthcare information system and investing more in prevention and early care.

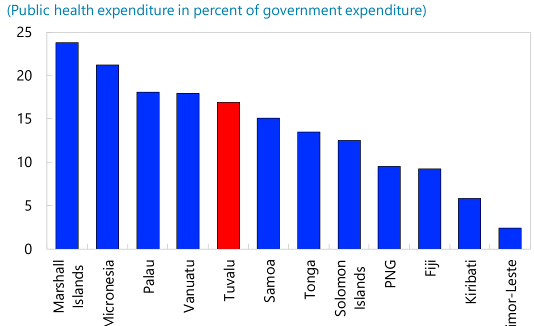
Current Spending is Substantial
(Fiscal expenditure in percent of GDP)



Sources: IMF staff estimates.

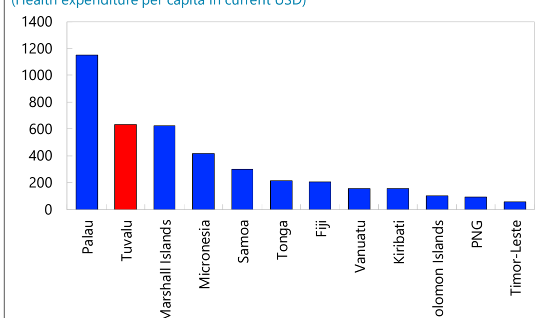
- **Scholarships.** A merit-based selection process, tighter requirements for study completion, and mandatory service periods under penalty of full repayment would ensure that the benefits of the scholarship programs are shared more equitably across the economy.

Public Spending on Health is High
(Public health expenditure in percent of government expenditure)



Notes: 2014 data for all countries.
Sources: World Bank, *World Development Indicators.*

Health Expenditure Per Capita Among Highest
(Health expenditure per capita in current USD)



Notes: 2014 data for all countries.
Sources: World Bank, *World Development Indicators.*

- **Capital spending.** Tuvalu needs capital investment to improve its growth potential, but the scale and pace should align with the economy's absorption capacity. The authorities need to prioritize high-impact projects, strengthen medium-term budgeting, and improve the PFM framework:

  - **Priority investment.** As the Tuvalu Infratructure Strategy and Investment Plan for 2016-25 lays out, the priorities should be to build resilience to climate change, improve transport, and enhance water and waste management, which would also help catalyze private sector activity.

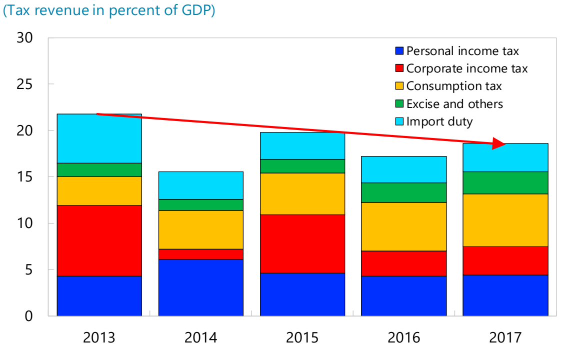
  - **The medium-term budget framework (MTBF)** can be improved with better revenue and spending forecasting methodologies, which would help improve the credibility of the annual budget process. The authorities are considering a multi-year rolling budget for capital investment. This could help complete approved projects, but requires a rigorous project selection process and continouos evaluation to succeed.

- **PFM reform priorities** include introducing competitive tendering for procurement under a centralized unit, ensuring adequate maintenance spending on capital assets, and standardizing fiscal account classification between the Treasury and the Budget Office. The authorities also need to improve the reliability of monthly fiscal reporting. Aligning these priorities with program grants of development partners would help accelerate key reforms.

14. The authorities should mobilize tax revenue.

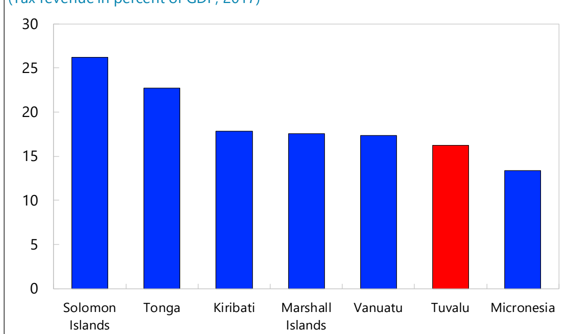
- **Tax revenue has declined due to tax exemptions and weak compliance.** The threshold of the Personal Income Tax stands high at 3 times per capita GDP after increases in the threshold in 2014 and 2016, which have eroded the tax base. Of the six large corporates in Tuvalu, only two corporations pay Corporate Income Tax (CIT) due to a high threshold (2 percent of GDP). Firms with less than a threshold profit (0.2 percent of GDP) are also exempt from Consumption Tax. Tax arrears by SOEs have weakened tax revenue, although outstanding tax arrears declined to 2 percent of GDP at end-2017 from 3 percent of GDP at end-2016. In a bid to increase tax revenue to 20 percent of GDP, the authorities have focused on improving tax compliance.

Tax Revenue Declined Due to Personal and Corporate Income Tax
(Tax revenue in percent of GDP)



Sources: Country authorities; and IMF staff estimates.

Low Tax Revenue Compared to Peers
(Tax revenue in percent of GDP, 2017)



Sources: *WEO Database* and IMF staff estimates.

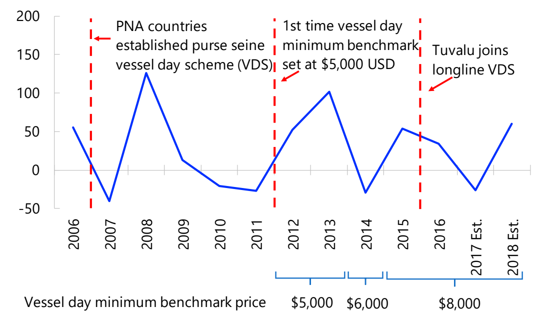
- **The government should increase tax revenue.** The priority is to eliminate exemptions and broaden the tax base, while continuing to improve compliance. The loss carry-forward, which is now allowed for indefinite periods, should be limited to a fixed period (e.g., 5 years). The government needs to re-evaluate the thresholds for CIT and Consumption Tax. The government also should continue to reduce tax arrears, enhance tax administration capacity, and develop a taxation module on the e-government platform to reduce compliance costs.

15. The authorities should strengthen fishing revenue forecasts. Close coordination between the Ministry of Finance (MoF) and the Ministry of Natural Resources (MNR) is critical to strengthen revenue forecasts and transparency. Fishing revenues are driven by annual allocations of vessel days under regional agreements, which are complicated to forecast (Box 2). There are no established models to forecast fishing revenues in the government budget, and the MoF has limited access to the fishing revenue information that the MNR controls. Improved financial management of the fishing license schemes will facilitate fiscal planning and help increase fishing revenue. Continuing regional cooperation to strengthen the region’s negotiating power will help sustain fishing revenue in the medium term.

Box 2. Drivers of Fishing License Revenue

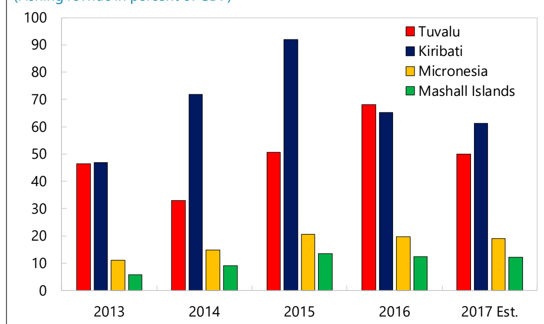
Fishing revenue increased substantially over the past several years to 50 percent of GDP in 2017 from 15 percent of GDP in 2011, and accounts for 60 percent of total fiscal revenue. With the recent receipt of a one-off payment from a sub-regional pooling scheme, fishing revenue is expected to reach 80 percent of GDP in 2018. Fishing revenue remains a volatile income source, although the volatility has slightly decreased in recent years.

Fishing Revenue Remains Volatile, *Albeit* to a Lesser Degree
(Fishing revenue to GDP ratio, year-on-year change in percent)



Sources: Parties to the Nauru Agreement; Tuvalu authorities, and IMF staff estimates.

High Dependency on Fishing Revenue Compared to Peers
(Fishing revnue in percent of GDP)

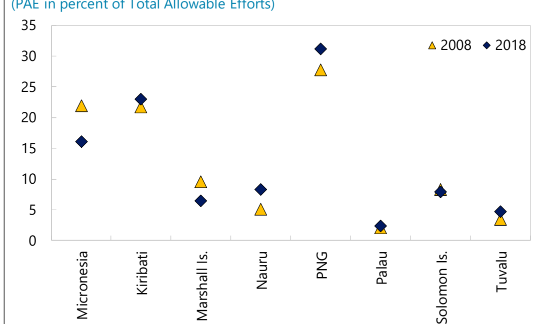


Sources: Countries authorities; and IMF staff estimates.

The increase in fishing revenue has been due to increased vessel days from the Parties to the Nauru Agreement (PNA). The PNA is a regional agreement among eight countries[1] accounting for around 30 percent of the world's tuna supply. The PNA implemented the Vessel Day Scheme (VDS) in 2007 to boost fishing revenue. The PNA sets Total Allowable Effort (TAE) each year—total fishing days in the PNA countries—and allocates each country Party Allowable Effort (PAE)—fishing days each country—based on its historical trends and zonal biomass. The PNA has set around 45,000 days TAE in 2018 and has allocated Tuvalu around 2,100 days PAE in 2018, which increased from 877 days in 2011, reflecting favorable fish moves in Tuvaluan waters under El-Nino effects. Countries can trade or pool their PAEs with other country members. Another contributing factor has been an increase in the minimum benchmark price to $8,000 per vessel day in 2018 from $5,000 in 2012.

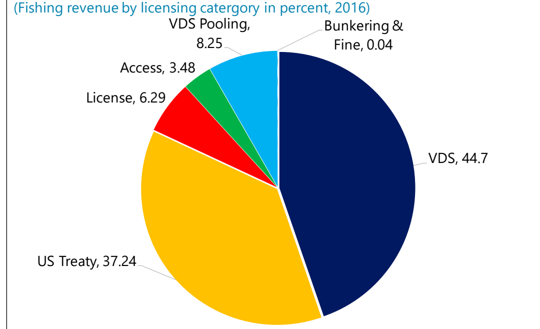
The Tuvaluan authorities allocate the PAE to licensing categories with different prices. The major licensing categories include bilateral auctions, the US Treaty pool[2], trading among the PNA countries, the FSM Agreement pool[3], and a sub-regional pooling. The one-off large increase in fishing revenue in 2018 stemmed from accumulated revenue from the sub-regional pool where five countries[4] formed a sub-regional group in 2012 to collectively auction remaining vessel days in a year.

Share of Party Allowable Efforts (PAE) Increased for Tuvalu
(PAE in percent of Total Allowable Efforts)



Sources: Party to the Nauru Agreement (PNA); country authorities; and IMF staff estimates.

VDS and US Treaty are Major Components of Fishing Revenue
(Fishing revenue by licensing catergory in percent, 2016)

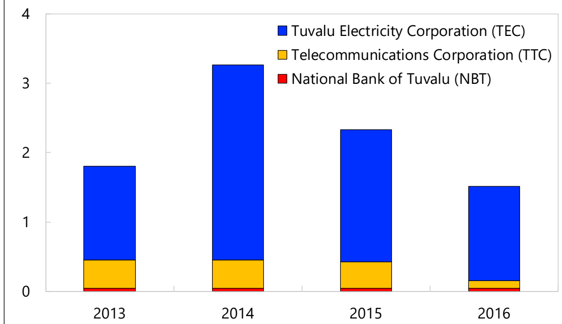


Sources: Ministry of Natural Resources, Fishery Department, *2016 Annual Report.*

1/ Includes Kiribati, the Marshall Islands, Palau, Papua New Guinea, Solomon Islands, Federated States of Micronesia, and Tuvalu.
2/ The US-South Pacific Tuna Treaty provides access to US purse seine vessels in participants' waters.
3/ Allows domestic vessels of the PNA countries to fish in the other PNA countries.
4/ Tuvalu, Nauru, Marshall Islands, Solomon Islands, and Tokelau.

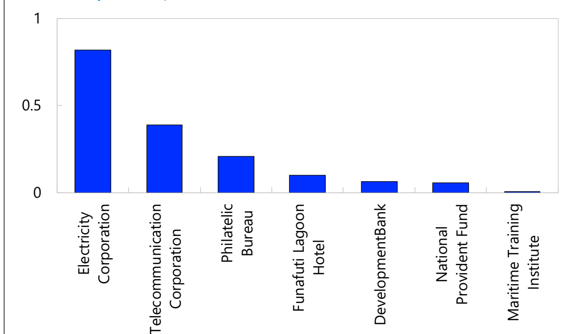
16. **The government should accelerate SOE reforms.** Tuvaluan SOEs rely heavily on fiscal support. Among the SOEs, only the National Bank pays CIT and disburses dividends. Fiscal support for the SOEs is projected to increase to 4 percent of GDP in the medium term, given below-cost tariffs, infrastructure upgrades, and capital injections into the banking sector. Strengthening the SOEs' financial performance is critical to contain the risk of contingent spillovers to the budget. Priorities include addressing the government's outstanding payment obligations, improving electricity tariff schemes, strengthening the transparency of fiscal support, and monitoring the financial performance of joint ventures.

Fiscal Support to SOEs, Mostly to TEC, Remains Substantial
(Government subsidies to SOEs in percent of GDP 1/)



Sources: Country authorities; and IMF staff estimates.
1/ Excludes capital injections to DBT.

SOEs' Tax Arrears Remain Large
(Tax arrears by SOEs in percent of GDP, 2017)



Sources: Country authorities; and IMF staff estimates.

- **The government's payment obligations**. The government has been overdue on its payment obligations to SOEs, which roughly equal SOEs' tax arrears (2 percent of GDP). The government should settle its outstanding payment obligations to SOEs, and SOEs should pay their remaining tax arrears.

- **Electricity tariffs.** The government sets electricity tariffs (A$ 0.65 per kWh on average) below a breakeven level (A$ 0.8 per kWh). While households have a differential tariff, public and commercial entities pay a flat tariff. The government should raise tariffs and link them to oil price changes, while mitigating the impact on the poor (e.g., higher tariff for a high consumption bracket). Introducing a differential tariff by electricity usage for public and commercial entities will help align tariffs with production costs and save electricity usage. To reduce costs, the authorities should introduce competitive bidding for fuel suppliers and contain salary expenses in the near term, while increasing power generation from renewable energy sources in the medium term.

- **Fiscal support**. The annual allocation of fiscal support to SOEs (Community Service Obligations) is ad-hoc, lacking transparency and predictability. There is room to employ a more transparent, rule-based approach to determine the annual fiscal transfers. Fiscal support should also be reduced over time. Bank recapitalization using fiscal financing should not be recurrent.

- **Joint ventures.** The financial performance of the National Fishing Corporation of Tuvalu (NAFICOT) and its three joint ventures is weak and non-transparent. Staff urges the authorities to closely monitor their financial performance. NAFICOT's outstanding debt, which currently stands at 24 percent of GDP, needs to be included in the official government debt data (staff have included it in this report's tables and the DSA) and closely monitored.

Tuvalu: Net Profits/Losses of SOEs 1/

	SOEs	2012	2013	2014	2015	2016	2017
		(In percent of GDP)					
Non-financial SOEs	Telecommunications Corporation (TTC)	-0.8	-0.5	-0.3	-0.1	-0.6	0.2
	Tuvalu Electricity Corporation (TEC)	-0.1	0.1	0.8	0.3	0.5	0.1
	Vaiaku Lagi Hotel Limited (VLHL) 2/	-0.8	-0.7	-0.7	-0.6	-0.6	-
	Friendly Tuna Fishing Corporation JV 3/	-	-0.1	-0.2	-	-	-
	Tuvalu Tuna FH JV 3/	-	-	-0.2	-0.4	-	-
	Tuvalu Post Limited (TPL)	-	-	-0.7	-2.0	0.1	-0.1
	Tuvalu Maritime Training Institute (TMTI)	1.5	-7.9	-	-	-	-
Financial SOEs	National Bank of Tuvalu (NBT)	2.5	6.8	2.6	3.0	4.5	2.7
	Development Bank of Tuvalu (DBT)	-3.0	-1.2	-1.4	0.1	0.2	-0.1

Source: Public Enterprise Reform Management Unit (PERMU)
1/ Net profits/losses include any tax arrears and government subsidies.
2/ Sold to the Pension Fund (TNPF) in November 2016.
3/ JV indicates joint venture.

Authorities' Views.

17. The authorities broadly concurred with staff's analysis. They noted that the volatility of fishing revenue has declined since the introduction of the Vessel Day Scheme (VDS), and fishing revenue could be considered a domestic revenue source. Although committed to containing current expenditure, the authorities noted that higher capital spending would help aid economic development and growth. They noted that scholarship spending would help strengthen human capital and growth potential. While they agree with the need to enhance medical spending efficiency, they asserted that a rise in spending is inevitable given an aging population and a high incidence of non-communicable diseases. The authorities emphasized that high public wages are necessary to retain staff, but assured staff that the World Bank's wage bill modeling will be used to inform the adequacy of structural salary adjustments. The authorities are committed to strengthening the monitoring of SOEs.

BROADENING THE PRIVATE SECTOR GROWTH BASE

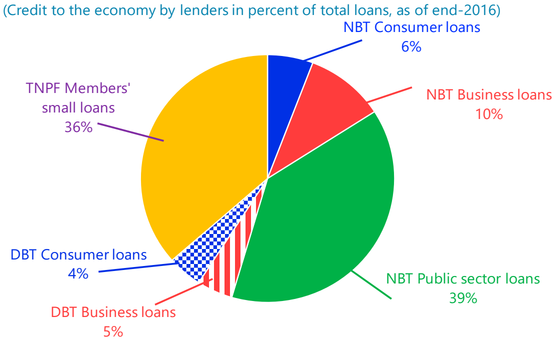
A. Improve Financial Supervision and Financial Inclusion

18. Banks remain risk-averse in the face of high NPLs.

- **The National Bank (NBT)** posted a profit in 2017 and appears to have adequate capital, but faces elevated credit risk. NPLs still account for 40 percent of total loans, although they are sufficiently provisioned and have slightly declined. Due to high NPLs, the bank has steadily slowed its lending since 2011 and increased deposits in overseas banks. As a result, interest income has been subdued, while foreign exchange income increased steadily, reflecting its monopolistic position in foreign exchange services. Also the bank—as the only commercial bank—is closely linked to the government and the SOEs as their banker and source of borrowing. The bank is required to hold a significant amount of liquid assets to mitigate the potential withdrawal of government deposits. This has further constrained its lending capacity.

National Bank of Tuvalu (NBT) Has Large Exposure to SOEs

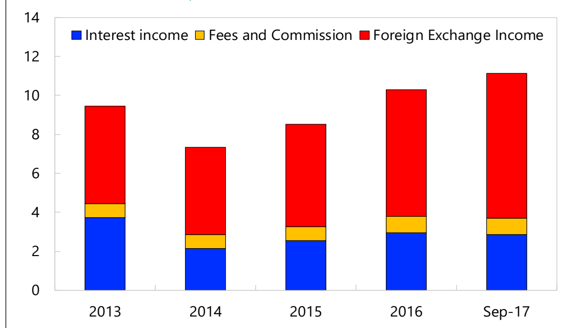
(Credit to the economy by lenders in percent of total loans, as of end-2016)



Sources: Country authorities; and IMF staff calculations.

Foreign Exchange is a Major Income Source for NBT

(NBT's income structure in percent of GDP)

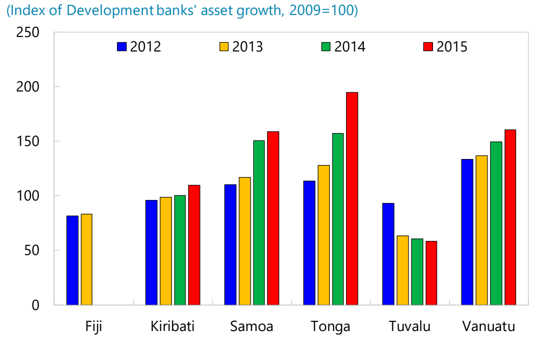


Sources: National Bank of Tuvalu, Financial Reports; and IMF staff estimates.

- **The Development Bank** has deleveraged, constrained by limited lending capacity due to high NPLs. After years of NPL write-offs, half of the bank's loans are still NPLs with insufficient provisioning. The bank's performance is among the weakest in the region, and the bank has relied on financial support and government guarantees. The high-risk profile of small business loans and weak credit risk management have also resulted in the bank taking a more stringent approach in lending, prioritizing small loan amounts. To improve its lending capacity, the bank is considering a concessional loan from the European Investment Bank.

DBT's Asset Growth Declined, in Contrast to Peers

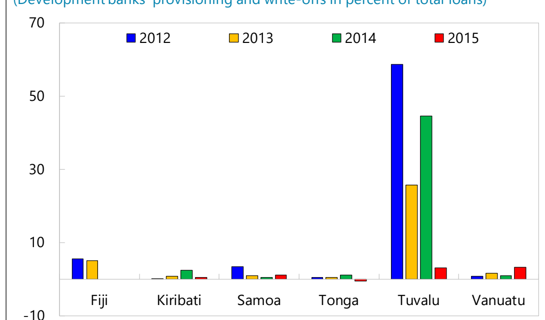
(Index of Development banks' asset growth, 2009=100)



Sources: Asian Development Bank, *Public Enterprise Specialist April 2017 Trip Report*.

Provisioning and Write-offs Contributed to Slowed Loan Growth

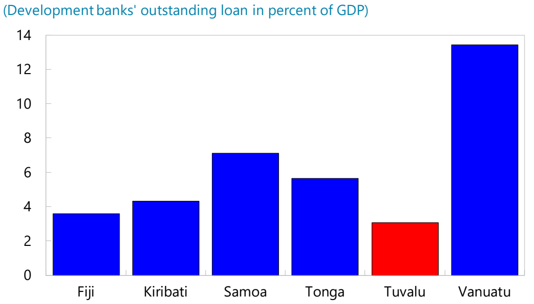
(Development banks' provisioning and write-offs in percent of total loans)



Sources: : Asian Development Bank, *Public Enterprise Specialist April 2017 Trip Report*.

DBT's Outstanding Loan Smallest Compared to Peers

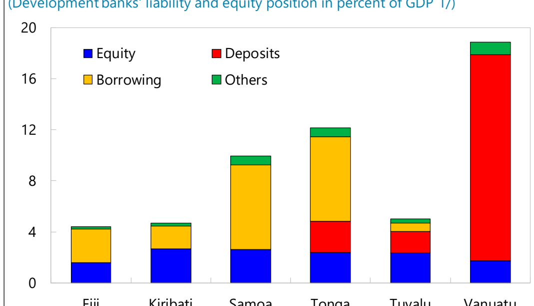
(Development banks' outstanding loan in percent of GDP)



Note: 2013 data for Fiji, 2015 data for all other countries.
Sources: Asian Development Bank, *Public Enterprise Specialist April 2017 Trip Report*.
1/ Loan balances are after provisioning for losses.

DBT Faces Limited Lending Capacity

(Development banks' liability and equity position in percent of GDP 1/)



Sources: Asian Development Bank, Public Enterprise Specialist April 2017 Trip Report.
1/ 2013 data for Fiji, 2015 data for all other countries.

- **The Tuvalu National Provident Fund (TNPF)** expanded member loans to 18 percent of GDP, amid the banking sector's constrained lending. The pension fund appears sound given low NPLs and a strong capital position. This is partly due to the recourse nature of their lending, with the fund holding seniority over the other two banks in collecting the collateral—the borrower's pension contribution. While the pension fund limits members' borrowing to 30 percent of their total retirement benefit balance, total borrowing stands at 17 percent of retirement balances.

Tuvalu: Key Financial Indicators

Ratio	National Bank of Tuvalu (NBT)	Development Bank of Tuvalu (DBT)	Tuvalu National Provident Fund (TNPF)
Assets/GDP	145	6	122
of which: deposits in foreign banks	96	-	-
Loans/GDP	26	4	18
Deposits/GDP	104	1.8	-
NPLs/Total Loans 1/	40	44	0.3
Provisioning/NPLs	201	19	128
Capital Ratio 2/	12	40	95
Profits/GDP	4	-0.1	6

Source: 2017 Financial Statements for NBT, DBT, and TNPF.
1/ NPLs are defined as impaired and overdue loans
2/ Share capital and retained earnings over total assets

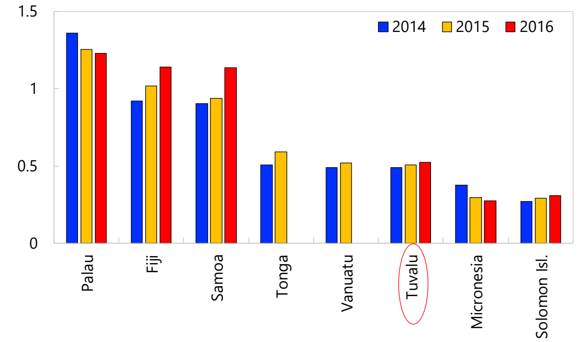
19. Limited financial supervision has contributed to banks' high NPLs, reduced financial sector efficiency, and undermined financial inclusion.

- There is no effective prudential supervision. The 2011 Banking Commission Act has not yet been implemented. The authorities have agreed to hire an external financial supervisor and develop a 3-year supervision strategy with Pacific Technical Assistance Center (PFTAC) assistance.

- In the face of credit risk and a weak credit culture, financial institutions have taken a risk averse attitude and tightened their own prudential practices. Financial institutions have limited a borrower's debt-to-income ratio to below 40 percent since 2012. The institutions have also introduced a recourse agreement, collateral seniority, and sharing of credit information. The borrower's pension contributions serve as loan collateral. For consumer loans, payment obligations are deducted directly from the borrower's salary.

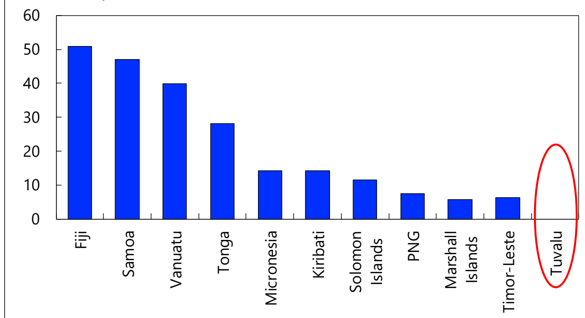
- The lack of financial supervision has also hampered financial inclusion. The number of depositors is limited, compared to that of peers. The weakness of the financial sector impedes access to private sector development, as does the absence of ATMs and credit card arrangements.

Depositors at Commercial Bank limited Compared to Peers
(Commercial banks' deposit accounts per capita)



Sources: National Bank of Tuvalu; IMF, *Financial Access Survey*, and staff calculations.

Tuvaluans Have No Access to ATMs
(ATM access per 100,000 adults)



Notes: 2013 data for Kiribati; 2015 for Vanuatu, Tonga and PNG; 2016 for remaining countries.
Sources: IMF, *Financial Access Survey*.

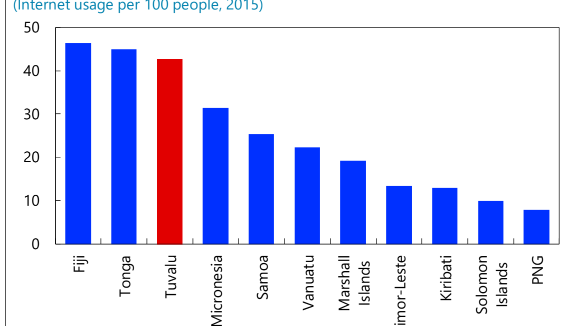
20. AML/CFT. So far Tuvalu has not experienced any significant loss of correspondent banking relationships, which are maintained by the National Bank. The bank has continued to strengthen its AML/CFT compliance by issuing identification cards to customers to comply with Know Your Customer (KYC) requirements in foreign transactions. Tuvalu has also established a Transaction Tracking Unit within the Police Department.

21. Policy Recommendations

- **It is critical to put a financial supervisory framework in place.** The authorities' efforts to introduce supervision should continue. The authorities need to develop bankruptcy legislation and improve enforcement of existing regulations. The pension fund should also be included in the supervision framework. While the pension fund's lending standards appear to be adequate, the fund's plan to move into large commercial loan markets could pose significant risks and should be reconsidered. Strengthening the banking sector would help increase available funding for commercial loan markets.

- **Bank credit intermediation and financial inclusion should be improved.** The Development Bank should improve its credit risk management. Once this has been achieved, the bank could gradually expand its lending capacity. Once adequate financial supervision is in place, the authorities could also encourage foreign bank presence, which would help improve financial intermediation and risk management and increase competition in the banking sector. Given Tuvalu's relatively high rate of internet usage and mobile cellular subscriptions and the recent introduction of 4G mobile services, the authorities could explore mobile banking, peer-to-peer payment, and other innovative fintech solutions.

Tuvalu Has a Relatively High Rate of Internet Usage
(Internet usage per 100 people, 2015)



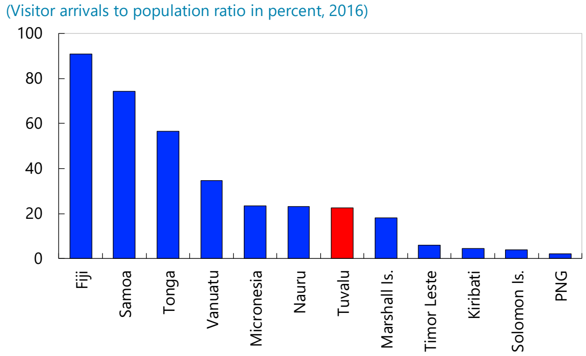
Notes: 2015 data for all countries.
Sources: World Bank, *World Development Indicators*.

- **Macroprudential policy**. The government should consider codifying the existing MOU between the financial institutions, which limits debt-to-income below 40 percent, into a macroprudential regulation. This will help the authorities regularly review the adequacy of the threshold to strike the right balance between containing financial sector risks and promoting financial intermediation to support the private sector. Strengthening SOEs would help reduce NPLs, freeing up financial sources for private sector activity, while mitigating macrofinancial risks.

B. Increase Potential Growth and Employment Opportunities

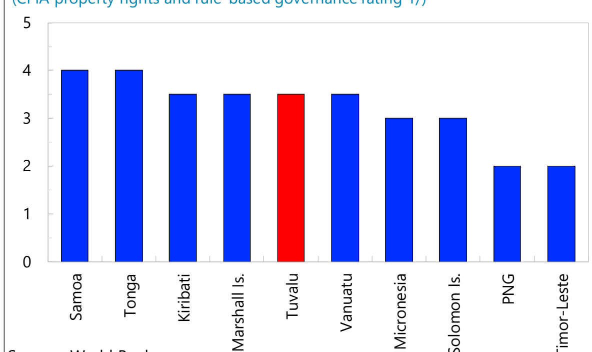
22. Private sector employment and business creation have been sluggish due to structural constraints. The unemployment rate is substantial at 37 percent, as private sector economic activity is limited to fishing and agriculture. Tourism receipts are low due to poor connectivity, infrastructure, and amenities. Secondary education and vocational training have also been limited, while remittances from seafarers have continued to decrease. The business regulatory environment has room for improvement (Appendix IV).

Tourism Industry is Underdeveloped
(Visitor arrivals to population ratio in percent, 2016)



Sources: South Pacific Tourism Organisation, *Annual Review of Visitor Arrivals in Pacific Island Countries 2016;* and IMF staff calculations.

Regulatory Environment Has Room for Improvement
(CPIA property rights and rule-based governance rating 1/)



Sources: World Bank.
1/ 1 = low, 6 = high.

23. Diversifying the growth base would help the economy better absorb macroeconomic volatility and increase growth potential. A concerted government approach is important to stimulate private sector development.

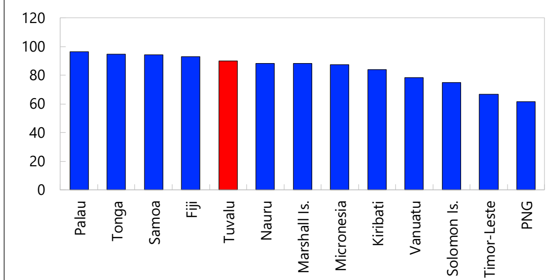
- **Business environment.** Improving the business environment is critical to attract foreign investment and foster sustainable growth. The World Bank's Doing Business assessment would help identify reform priorities. The authorities could consider International Finance Corporation (IFC) membership to broaden private sector growth.

- **Tourism and goods exports.** A national tourism strategy, paired with improved infrastructure, would help grow the tourism industry and increase employment. Hosting cruise ships for eco-tourism would help boost tourism while overcoming limited accommodation facilities in Tuvalu. The government is in the process of ratifying the Pacific Agreement on Closer Economic Relations Plus (PACER Plus)—a regional trade agreement between Australia, New Zealand, and eight Pacific island economies. The agreement can support export product development and funding availability.

- **Water resource management**. As an atoll island, reliable water availability is critical to sustain private sector business expansion, especially tourism. An innovative strategy for water resource management, such as desalination plants, will strengthen the economy's appeal as a tourist and business destination.

24. **Strengthening human capital is critical for sustainable growth in the long run.** Tuvalu's human capital appears to be relatively strong compared to Pacific peers, but there is ample scope to strengthen human capital.

Tuvalu's Human Asset Appears to Be Relatively Strong
(Human Asset Index, 2018 1/)



Sources: United Nations - Committee for Development Policy, *2018 triennial review*.
1/ The index is composed of 5 indicators grouped into a health and education subindex; maximum = 100.

- **Education.** The recent establishment of the Institute of Technology and the government's efforts to introduce professional certifications should help enhance education output and labor mobility. The authorities should improve the quality of secondary education, aided by an additional supply of qualified teachers and essential learning materials. A comprehensive review of vocational training, including seafarer training of the Tuvalu Maritime Training Institute (TMTI), would help adapt vocational training to the changing needs of Tuvalu's and the global economy. The PACER Plus could also provide additional labor mobility options with training opportunities.

- **Private sector job creation.** Given the dominance of the public sector in economic activities (estimated to account for up to 90 percent), the government should consider partial privatization of non-essential government functions, such as public maintenance work and construction. Privatization could help foster private sector growth, although the benefits of privatization should be balanced with the need for ensuring vital service delivery.

- **Gender equality.** Women have been actively participating in education and the work force, including the government and small businesses. There is room to strengthen the role of women in decision-making positions, including in the government, local councils, and Parliament. Women could also play a larger role in small business development.

C. Other Issues

25. **Data provision/Technical Assistance**. Data provision has serious shortcomings that significantly hamper surveillance. It is critical to strengthen institutional capacity to produce essential macroeconomic data in a timely manner, including via a succession plan given frequent personnel turnover. PFTAC plans to continue to provide significant technical assistance, including on public financial management, macroeconomic programming and analysis, and revenue administration.

Authorities' Views.

26. The authorities broadly agreed with staff's recommendations. They recognized the need for financial supervision and are resolved to collaborate with PFTAC. The authorities noted the need for strengthening DBT's lending capacity and are in favor of exploring concessional borrowing or equity investment options. They estimated that the debt-to-income ratio limit contributed to impeding lending growth in the past years. The authorities also understood the limitations of private sector economic activity. They plan to develop the tourism industry, strengthen human capital, and expand financial inclusion efforts. They acknowledged that limited institutional capacity hinders the production of macroeconomic data in a timely manner. They appreciated technical assistance from the Fund and anticipated continued support.

STAFF APPRAISAL

27. Tuvalu's macroeconomic outlook is broadly positive. Economic growth is accelerating on capital expenditure and infrastructure projects. Inflation is expected to remain somewhat elevated on robust economic activities. However, risks remain to the downside. The economy is susceptible to the effects of climate change and natural disasters. The fiscal revenue base faces uncertainties from volatile fishing revenues and reliance on grants. Weak balance sheets of SOEs and limited financial supervision create risks to the fiscal accounts and impede banks' credit intermediation. Reflecting these risks, Tuvalu remains at high risk of debt distress. While the external position in 2017 is judged to have been broadly in line with fundamentals, data limitations create substantial uncertainty around such assessments.

28. The macroeconomic policy priorities are to promote resilience to external shocks and boost potential growth. To promote resilience, it will be important to strengthen the medium-term fiscal framework to maintain buffers and continue to improve climate change risk management. Key policies for boosting potential growth and diversifying the growth base include developing human capital, promoting tourism, and improving financial intermediation and supervision.

29. The government should adopt gradual fiscal consolidation to maintain buffers. The domestic current balance can be a useful operational target to abstract from volatile and exogenous components of the fiscal accounts. Gradual fiscal consolidation in the next decade would help boost the government's net financial worth to buffer most shocks.

30. Improving the fiscal balance requires containing current spending and prioritizing capital spending. The authorities should curb rising current spending, while improving spending efficiency. Tuvalu needs capital investment to improve growth prospects and climate change resilience, but the scale and pace should align with the economy's absorption capacity. The authorities should prioritize high-impact projects, strengthen the medium-term budgeting, and continue to improve the PFM framework.

31. The authorities should mobilize tax revenue and strengthen fishing revenue forecasts. Tuvalu has potential for expanding tax revenue by eliminating tax exemptions and broadening the tax base, while continuing to improve tax compliance. The authorities should review tax exemptions. To strengthen fishing revenue forecasts and transparency, close coordination between the MoF and the MNR is critical.

32. The government should accelerate SOE reforms. Strengthening the financial performance of SOEs is critical to contain the risk of contingent spillovers to the budget. Policy priorities include addressing the government's payment obligations, improving electricity tariff schemes, strengthening the transparency of fiscal support and reducing it over time, and closely monitoring the financial performance of the joint ventures. NAFICOT's outstanding debt needs to be included in the official government debt data and closely monitored.

33. The authorities should strengthen the role of bank credit intermediation. It is critical to implement a supervisory framework that includes the pension fund. The authorities should develop bankruptcy legislation and improve enforcement of existing regulations. The Development Bank should improve its credit risk management. Once this has been achieved, the bank could also bolster its lending capacity to better serve its development objectives.

34. Diversifying the economy would help absorb macroeconomic volatility. A national tourism strategy, paired with improved infrastructure and water management, would help grow the tourism industry and increase employment. Improving the business environment is critical to develop the private sector and foster sustainable growth. The authorities should enhance the quality of secondary education and carry out a comprehensive review of vocational training.

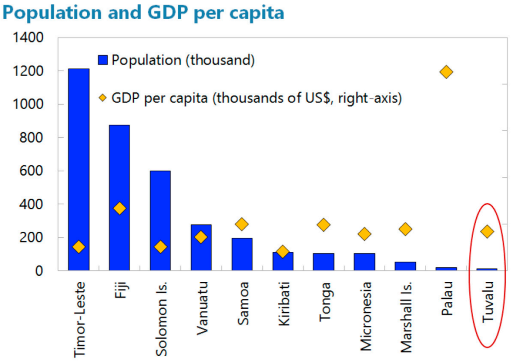
35. The authorities should continue strengthening macroeconomic statistics. Developing the institutional capacity to produce essential macroeconomic data in a timely manner is critical for effective macroeconomic surveillance.

36. It is recommended that the next Article IV consultation take place on the current 24-month cycle.

Figure 1. Tuvalu: Setting in a Cross-Country Context

Tuvalu's per capita income is relatively high compared to Pacific peers…

Population and GDP per capita

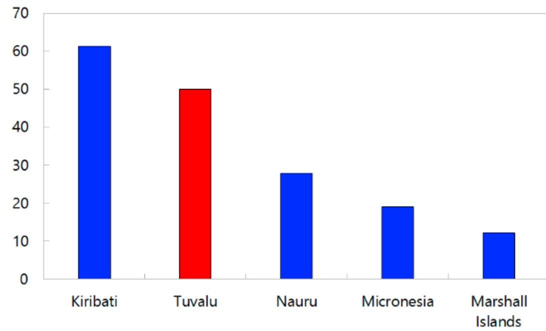


Sources: IMF, *World Economic Outlook*.

…supported by fishing license fee revenue…

Fishing License Fees, 2017

(In percent of GDP)

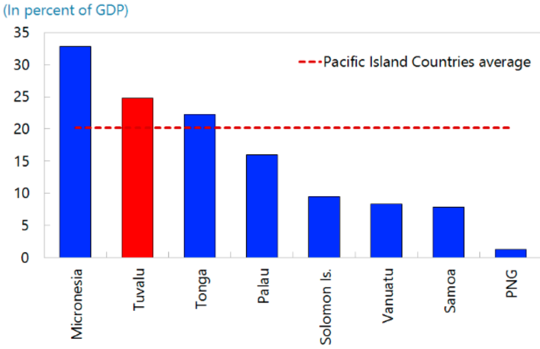


Sources: Country authorities, and IMF staff estimates.

…and development partner grants, both of which stand high compared to Pacific peers.

Grants, 2017

(In percent of GDP)

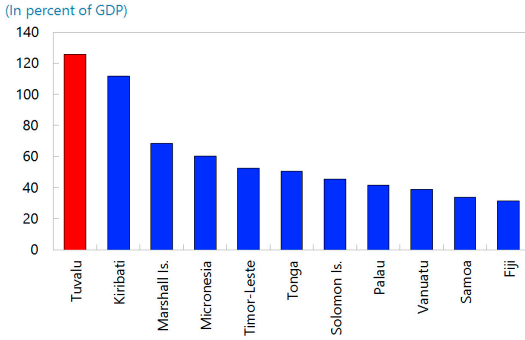


Sources: Country authorities; and IMF, *World Economic Outlook*.

The public sector is large and dominates the economy…

Government Expenditure, 2017

(In percent of GDP)

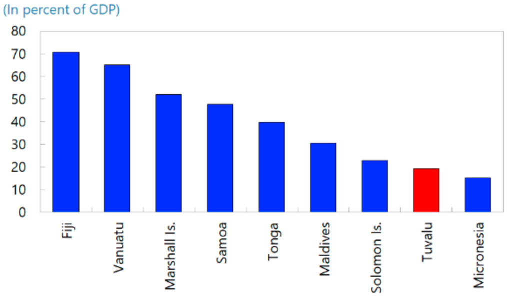


Sources: Country authorities; and IMF, *World Economic Outlook*.

…a small amount of outstanding credit to the private sector suggests weak private sector economic activities…

Credit to private sector, 2017

(In percent of GDP)

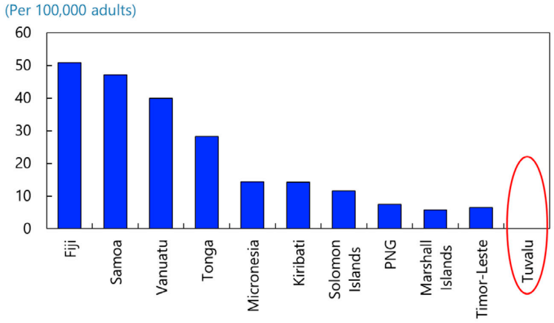


Note: 2016 data for Micronesia and Marshall Islands.
Sources: Country authorities; IMF, *International Financial Statistics (IFS)*, and staff calculations.

…international financial connectivity is also limited, with no access to ATMs.

ATM Access

(Per 100,000 adults)

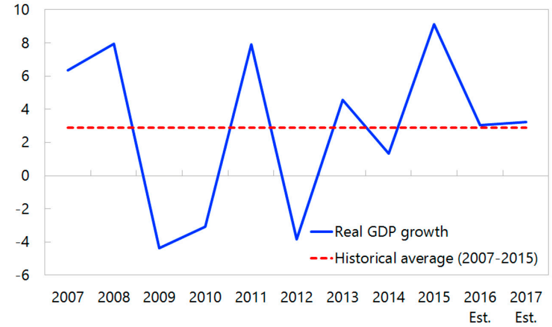


Notes: 2013 data for Kiribati; 2015 for Vanuatu, Tonga and PNG; 2016 for remaining countries.
Sources: IMF, *Financial Access Survey*.

Figure 2. Tuvalu: Economic Developments

Growth is volatile and currently around recent averages.

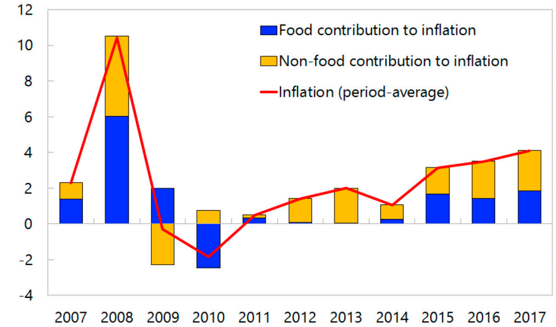
Real GDP Growth
(In percent)



Sources: Country authorities; PFTAC; and IMF staff estimates.

Inflation increased on higher food prices…

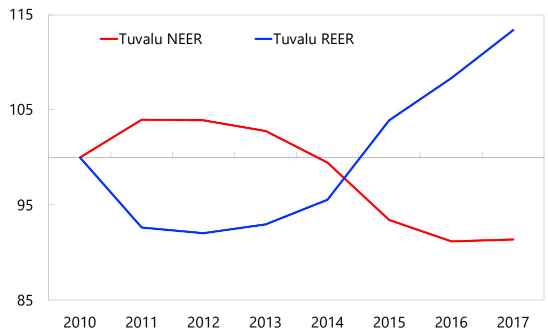
Contributions to Inflation
(In percent, year-on-year)



Sources: Country authorities; and IMF staff calculations.

…relatively high inflation in Tuvalu has resulted in the appreciation of the real effective exchange rate.

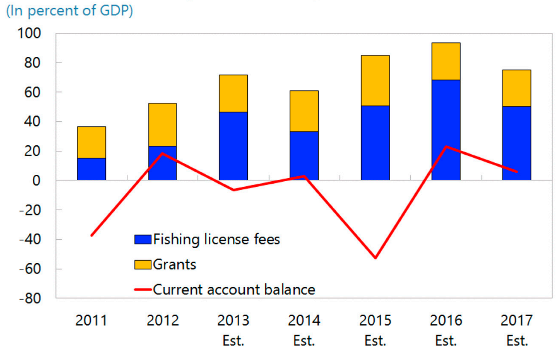
Tuvalu: NEER and REER
(Index, 2010 = 100)



Sources: IMF *WEO database*; and IMF staff calculations.

Fishing license revenue increased in recent years, reflecting favorable weather patterns and a new vessel agreement.

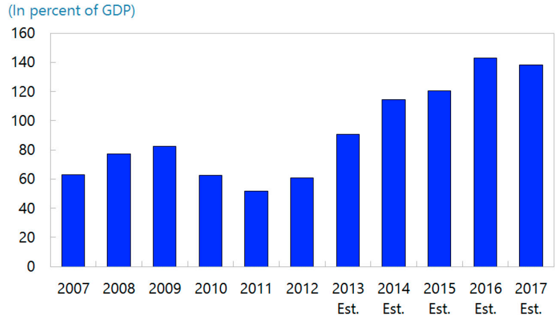
Main Balance of Payments Receipts
(In percent of GDP)



Sources: Country authorities; and IMF staff estimates.

Gross reserves have been replenished on increased liquid assets of the National Bank.

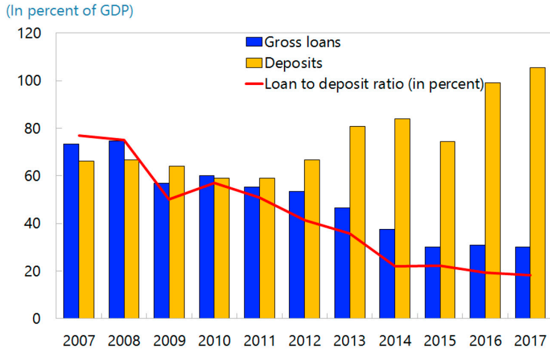
Gross Reserves 1/
(In percent of GDP)



Sources: Country authorities; and IMF staff estimates.
1/ Defined as the sum of foreign assets of the National Bank of Tuvalu, Consolidated Investment Fund, and SDR holdings.

Despite an increase in liquidity in the financial system, lending growth continued to slow.

Banks' Assets and Liabilities
(In percent of GDP)

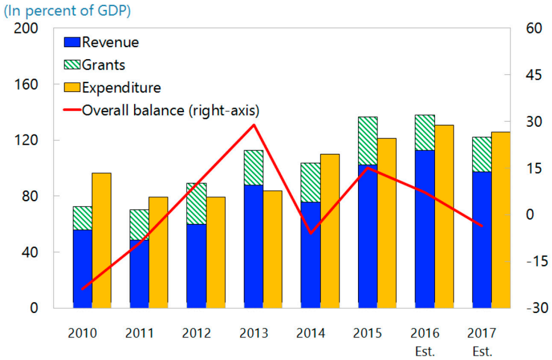


Sources: Country authorities; and IMF staff calculations.

Figure 3. Tuvalu: Fiscal Developments

The fiscal surplus has declined, with the fiscal balance turning into a deficit in 2017.

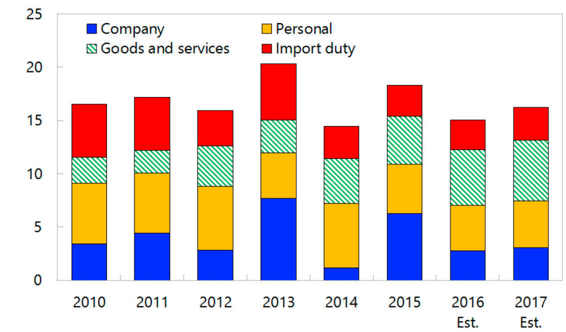
Fiscal Balance
(In percent of GDP)



Sources: Country authorities; and IMF staff estimates.

Despite a slight pickup in 2017, tax revenue has been subdued partly due to lower corporate income tax…

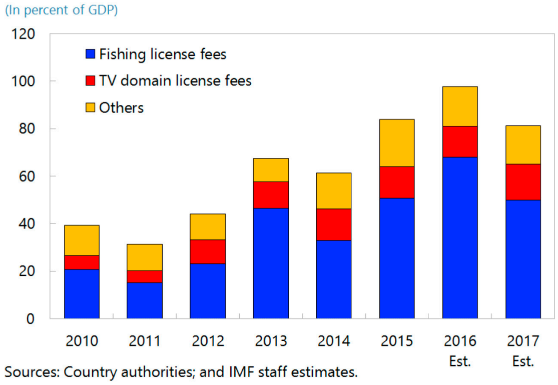
Tax Revenue
(In percent of GDP)



Sources: Country authorities; and IMF staff estimates.

…and fishing license revenue declined in 2017, although it remains elevated compared to several years ago.

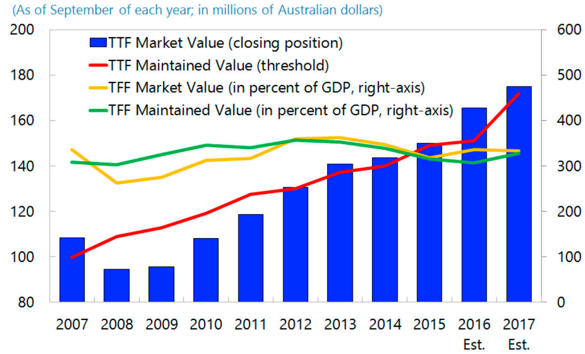
Non-tax Revenue
(In percent of GDP)



Sources: Country authorities; and IMF staff estimates.

The Tuvalu Trust Fund has exceeded the maintained value on the back of favorable financial markets in Australia,

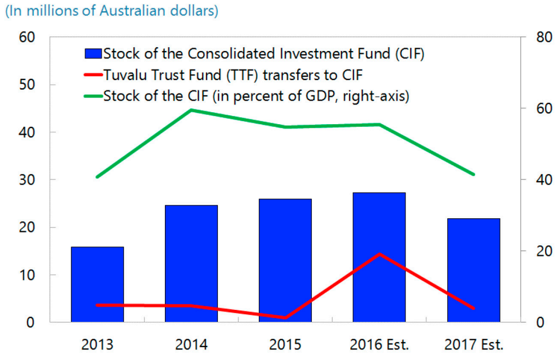
Tuvalu Trust Fund
(As of September of each year; in millions of Australian dollars)



Sources: Country authorities; and IMF staff estimates.

but the CIF balance fell in 2017 as the fiscal deficit was financed by the CIF.

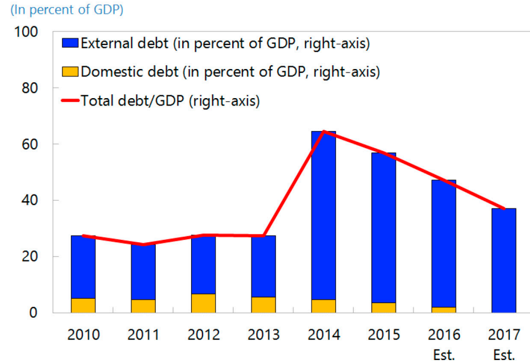
Consolidated Investment Fund
(In millions of Australian dollars)



Source: Country authorities.

Public debt has declined steadily in recent years, on the back of increased fishing revenue and fiscal surpluses.

Public Debt
(In percent of GDP)



Sources: Authorities data; and IMF staff estimates.

Table 1. Tuvalu: Selected Economic Indicators, 2015–19

Population (2016 est.): 10,879	Poverty rate (2017): 26 percent
Per capita GDP (2016 est.): US$3,157	Life expectancy (2016): 67 years
Main export: Fish	Primary school enrollment (2015): 100 percent
Key export markets: Fiji, Australia, Japan, New Zealand	Secondary school enrollment (2015): 57 percent

	2015	2016	2017	2018	2019
	Est.	Est.	Est.	Proj.	Proj.
			(Percent change)		
Real sector					
Real GDP growth	9.1	3.0	3.2	4.3	4.1
Consumer price inflation (end of period)	4.0	2.6	4.4	4.0	3.4
Government finance			(In percent of GDP)		
Revenue and grants	136	138	122	161	113
Revenue	102	113	97	118	82
of which: Fishing license fees	51	68	50	80	46
Grants	34	25	25	43	32
Total expenditure	121	131	126	155	118
Current expenditure	99	111	97	103	101
Capital expenditure 1/	22	19	29	52	17
Overall balance	15	7	-4	6	-4
of which: Domestic Current balance 2/	-47	-67	-49	-65	-65
Financing	-15	-7	4	-6	4
Consolidated Investment Fund	15	7	-4	6	-4
Tuvalu Trust Fund (in percent of GDP)	318	336	333	315	299
Consolidated Investment Fund (in percent of GDP)	55	55	42	59	55
Tuvalu Survival Fund (in percent of GDP)	…	10	10	14	17
Monetary Sector					
Credit growth (percent change) 3/	3	13	6	6	5
		(In percent of GDP, unless otherwise indicated)			
Balance of payments (in percent of GDP)					
Current account balance	-53	23	6	5	-1
Goods and services balance	-216	-135	-141	-154	-140
Capital and financial account balance	74	5	-2	9	8
of which: capital transfers	19	23	16	11	11
Overall balance	21	28	4	14	7
Gross reserves 4/					
In $A million	57	70	73	81	85
In months of prospective imports of goods and services	9	10	9	10	10
		(In percent of GDP, unless otherwise indicated)			
Debt indicators					
Gross public debt	57	47	37	28	22
External	53	45	37	28	22
Domestic	3	2	0	0	0
Exchange rates					
Australian dollar per U.S. dollars (Period average)	1.33	1.34	1.30	…	…
Australian dollar per U.S. dollars (End-period)	1.38	1.36	1.31	…	…
Real effective exchange rate (2010=100)	104	108	113	…	…
Nominal GDP (In $A million)	47	49	53	57	61

Sources: Tuvalu authorities; PFTAC; SPC; ADB; World Bank; 2018 IMF's BOP TA; and IMF staff estimates and projections.

1/ Includes Special Development Fund and infrastructure investment.

2/ Domestic current balance excludes fishing revenue, grants, and capital expenditure.

3/ Banks' and pension fund lending to non-government domestic sector.

4/ The sum of liquid assets of the National Bank of Tuvalu, Consolidated Investment Fund, and SDR holdings.

Table 2. Tuvalu: Medium-Term Baseline Scenario, 2015–23

	2015 Est.	2016 Est.	2017 Est.	2018 Proj.	2019 Proj.	2020 Proj.	2021 Proj.	2022 Proj.	2023 Proj.
					(Percent change)				
Growth and inflation									
Real GDP growth	9.1	3.0	3.2	4.3	4.1	4.4	4.2	4.1	3.9
CPI inflation (end of period)	4.0	2.6	4.4	4.0	3.4	3.5	3.2	3.0	2.8
					(In percent of GDP)				
Fiscal accounts									
Total revenue and grants	136	138	122	161	113	106	104	102	101
Revenue	102	113	97	118	82	79	79	81	82
Grants	34	25	25	43	32	27	25	21	18
Total expenditure and net lending	121	131	126	155	118	110	109	108	106
Overall balance (including grants)	15	7	-4	6	-4	-4	-5	-5	-5
					(In percent of GDP)				
Balance of payments									
Current account	-53	23	6	5	-1	-11	-12	-14	-11
Exports	1	1	1	1	1	1	1	1	1
Imports	121	62	62	69	61	67	62	59	52
Capital and financial account	74	5	-2	9	8	8	7	8	7
of which: Capital transfers	19	23	16	11	11	10	9	9	8
Overall balance	21	28	4	14	7	-3	-6	-6	-4
Memorandum items									
Gross external public debt (percent of GDP)	53	45	37	28	22	17	8	5	4
External debt service ratio 1/	61	52	53	54	43	39	71	29	5
Gross reserves ($A million) 2/	57	70	73	81	85	83	79	74	71
(In months of prospective imports)	9	10	9	10	10	10	9	9	8
Tuvalu Trust Fund (stock, $A million)	150	165	175	179	182	186	190	194	197
Consolidated Investment Fund (stock, $A million)	26	27	22	34	34	34	33	32	31
Credit growth (y/y percent change) 3/	3	13	6	6	5	7	6	6	5

Sources: Data provided by the Tuvalu authorities and IMF staff estimates and projections.
1/ In percent of exports of goods and services.
2/ Defined as the sum of foreign assets of the National Bank of Tuvalu, Consolidated Investment Fund, and SDR holdings.
3/ Banks' and pension fund lending to non-government domestic sector.

Table 3. Tuvalu: Summary of General Government Operations, 2013–23 1/

	2013	2014	2015	2016	2017 Est.	2018	2019	2020 Proj.	2021	2022	2023
					(In millions of Australian dollars)						
Total revenue and grants	44	43	64	68	64	91	69	70	74	78	82
Revenue	34	31	48	55	51	67	50	52	56	62	67
Tax revenue	8	6	9	7	9	9	9	10	11	12	12
of which: Personal income tax	2	3	2	2	2	2	2	3	3	3	3
of which: Corporate income tax	3	0	3	1	2	2	3	3	3	3	3
of which: Consumption tax	1	2	2	3	3	3	3	3	3	4	4
Nontax revenue	26	25	40	48	43	58	41	42	45	50	55
of which: Fishing license fees	18	14	24	33	26	45	28	29	32	36	40
of which: License fees for .TV domain 1/	4	6	6	6	8	7	7	7	7	7	7
Grants 2/	10	12	16	12	13	24	19	18	18	16	15
Total expenditure and net lending	33	45	57	64	66	88	72	73	77	82	87
Current expenditure	30	42	47	55	51	58	62	66	70	76	80
of which: Wages and salaries	13	15	16	19	20	24	24	26	28	31	33
of which: Goods and service purchases	8	13	13	21	14	16	17	17	18	19	20
of which: TMTS	3	3	4	5	6	6	7	7	8	8	8
of which: Scholarship programs	2	2	4	4	5	6	7	7	7	8	8
Capital expenditure and net lending	3	4	11	9	15	29	10	7	7	7	6
Infrastructure	0	0	0	0	9	19	6	4	4	4	4
Special development expenditure	3	4	11	9	6	10	5	3	3	3	2
Net lending	0	0	0	0	0	0	0	0	0	0	0
Overall balance	11	-3	7	4	-2	4	-3	-3	-4	-4	-4
Domestic current balance 2/	-14	-24	-22	-33	-26	-37	-40	-43	-46	-50	-53
Financing	-11	3	-7	-3	2	-4	3	3	4	4	4
Foreign (net)	0	0	0	-1	-1	-1	-1	-1	-1	-1	-1
Domestic (net)	0	0	0	0	0	0	0	0	0	0	0
CIF (net, -=increase)	-11	3	-7	-3	2	-3	3	4	4	5	5
					(In percent of GDP)						
Total revenue and grants	113	104	136	138	122	161	113	106	104	102	101
Revenue	88	76	102	113	97	118	82	79	79	81	82
Tax revenue	20	14	18	15	16	16	15	15	15	15	15
of which: Personal income tax	4	6	5	4	4	4	4	4	4	4	4
of which: Corporate income tax	8	1	6	3	3	4	4	4	4	4	4
of which: Consumption tax	3	4	5	5	6	5	4	5	5	5	5
Nontax revenue	67	61	84	98	81	103	67	64	63	66	67
of which: Fishing license fees	46	33	51	68	50	80	46	44	45	47	49
of which: License fees for .TV domain 1/	11	13	13	13	15	12	11	10	10	10	9
Grants	25	28	34	25	25	43	32	27	25	21	18
Total expenditure and net lending	84	110	121	131	126	155	118	110	109	108	106
Current expenditure	76	101	99	111	97	103	101	100	99	99	98
of which: Wages and salaries	33	36	34	38	37	41	39	39	39	40	40
of which: Goods and service purchases	22	30	27	43	26	27	27	26	26	25	25
of which: TMTS	7	6	9	9	12	11	11	11	11	10	10
of which: Scholarship programs	5	5	8	9	9	11	11	10	10	10	10
Capital expenditure and net lending	8	9	22	19	29	52	17	11	10	9	8
Infrastructure	0	0	0	0	17	33	9	6	5	5	5
Special development expenditure	8	9	22	19	12	18	8	5	4	4	3
Overall balance	29	-6	15	7	-4	6	-4	-4	-5	-5	-5
Domestic current balance 3/	-35	-58	-47	-67	-49	-65	-65	-65	-65	-65	-65
Financing	-29	6	-15	-7	4	-6	4	4	5	5	5
Foreign (net)	-1	0	0	-1	-1	-1	-1	-1	-1	-1	-1
Domestic (net)	0	0	0	0	0	0	0	0	0	0	0
CIF (net, -=increase)	-28	6	-15	-6	5	-5	5	5	6	6	6
Memorandum items:											
Public debt (in percent of GDP)	27	64	57	47	37	28	22	17	8	5	4
Stock of CIF ($A million)	16	25	26	27	22	34	34	34	33	32	31
Nominal GDP ($A million)	39	41	47	49	53	57	61	66	71	76	82

Sources: Tuvalu authorities; and IMF staff estimates and projections.
1/ .TV is an internet domain.
2/ Based on GFS 1986.
3/ Excludes fishing license fees and grants, and capital expenditure.

Table 4. Tuvalu: Balance of Payments, 2013–23

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
							Proj.				
	(In percent of GDP, unless otherwise indicated)										
Current account balance											
including official grants	-7	3	-53	23	6	5	-1	-11	-12	-14	-11
excluding official grants	-42	-56	-133	-44	-73	-56	-77	-79	-68	-63	-51
Goods and services balance	-118	-121	-216	-135	-141	-154	-140	-140	-129	-126	-115
Goods balance	-45	-47	-121	-61	-61	-68	-60	-66	-61	-58	-51
Exports of goods, f.o.b.	1	1	1	1	1	1	1	1	1	1	1
Imports of goods, f.o.b.	46	48	121	62	62	69	61	67	62	59	52
Services balance	-73	-74	-95	-74	-80	-85	-80	-73	-67	-68	-64
Exports of services	9	9	13	13	12	11	11	11	11	10	10
Imports of services	82	83	108	87	91	97	91	84	78	78	74
Primary income balance	76	65	83	91	68	98	63	60	60	63	64
Inflows	77	66	83	91	70	100	65	63	63	65	66
of which: Fishing license fees	46	33	51	68	50	80	46	44	45	47	49
of which: Investment income	5	16	6	35	12	12	11	11	10	10	9
Outflows	1	0	0	0	2	2	2	2	2	2	2
Secondary income balance	35	59	80	68	79	61	76	68	56	49	40
Inflows	37	61	82	69	80	62	77	70	57	51	41
Official	37	61	82	69	80	62	77	70	57	51	41
of which: grants on budget	25	28	34	25	25	43	32	27	25	21	18
Private	0	0	0	0	0	0	0	0	0	0	0
Outflows 1/	2	1	2	1	1	1	1	1	1	1	1
Capital account balance	15	15	91	28	43	20	18	18	16	17	15
Net lending/borrowing (Current+Capital accounts)	8	18	38	52	49	25	17	7	4	3	5
Financial account balance (assets - liabilities)	26	10	17	24	45	11	10	10	9	9	9
Net acquisition of assets	24	9	16	19	46	12	11	11	10	10	9
Net incurrence of liabilities	-1	-1	-1	-5	1	1	1	1	1	1	1
Gross Reserves ($A million) 2/	35	47	57	70	73	81	85	83	79	74	71
months of prospective imports	8	5	9	10	9	10	10	10	9	9	8
Memorandum items:											
Nominal GDP ($A million)	39	41	47	49	53	57	61	66	71	76	82

Sources: IMF's BOP TA (April 2018), Tuvalu authorities, PFTAC, and IMF staff estimates.

1/ Includes government's overseas contributions.

2/ The sum of liquid assets of the National Bank of Tuvalu, Consolidated Investment Fund, and SDR holdings.

Table 5. Assets and Liabilities of Financial Institutions, 2012–17

	2012	2013	2014	2015	2016	2017 Est.
	(In percent of GDP)					
Banking Sector						
Assets	125	134	135	110	135	148
Cash	6	4	2	2	3	3
Deposits	50	51	56	67	88	98
Loans and advances 1/	54	47	37	30	31	30
Claims on other banks	5	22	30	10	11	8
Fixed assets	1	1	1	1	1	1
Other assets	9	8	9	0	0	8
Liabilities	71	84	86	84	107	113
Deposits	67	81	84	74	99	105
Securities	0	1	0	0	0	0
Liabilities to other banks 2/	1	1	1	1	0	0
Other liabilities	2	2	1	8	7	7
Capital	51	45	45	25	28	33
of which: Paid-up capital	13	12	13	12	11	10
Retained earnings	12	16	13	0	5	9
Provision for credit impairment	26	18	19	14	12	13
Pension Fund						
Assets	121	122	124	115	122	125
Liabilities	0	0	0	1	2	0
Memoradum items:						
Credit growth (percent change) 3/	-6	9	-17	3	13	6

Sources: National Bank of Tuvalu; and Development Bank of Tuvalu.

1/ Gross loans and advances.

2/ Development Bank of Tuvalu's loans from the European Investment Bank.

3/ Banks' and pension fund lending to non-government domestic sector.

Appendix I. Risk Assessment Matrix[1]

Sources of Risks	Likelihood and Transmission Channels	Potential Impact	Recommended Policy Actions
External risks			
Climate change	**High** Climate change related extreme weather events and sea level rise could result in larger-than-expected recovery costs.	**High** Higher-than-expected incidence of natural events with large fiscal costs for recovery efforts would put downward pressure on the fiscal balance causing reserves depletion and lowering potential output. Cyclone Pam caused a cost of 33 percent of GDP in 2015.	Strengthen fiscal buffers. Increase climate adaption capacity to increase resilience, with donors' assistance. Build institutional capacity and strengthen the PFM framework.
Retreat from cross-border integration	**Medium** A rise in protectionism and economic isolationism could reduce grants for budget support and development projects from international development partners. On the upside, grants could be sustained at the current levels in the long-run.	**High** The reduction in grants would cause a deterioration in the fiscal and external position, impede sustainable development, and weaken climate change resilience. Sustaining grants would bolster the fiscal stance, support the fiscal buffer build-up, and strengthen climate change resilience.	Build a transparent fiscal framework and execute the PFM roadmap. Broaden the revenue base and conduct fiscal consolidation to increase fiscal buffers.
Lower fishing revenue	**Medium** Fishing license fees decline more than projected due to changing weather conditions resulting in downward pressure on the fiscal and external balance.	**High** Lower fishing license fees would prompt the authorities to cut spending thereby reducing potential growth, hampering development, and depleting fiscal buffers.	Continue implementing a medium-term fiscal framework and saving excess fishing revenue. Broaden the revenue base and conduct fiscal consolidation (see above).
Tighter global financial conditions	**High** An increase in policy rates and term premia in the US and EU could have investors minimize exposure to Australian assets, thus amplifying volatility and market illiquidity, adversely affecting the TTF's financial performance.	**Medium** The adverse impact on the TTF's market value stemming from Australian market volatility and constrained liquidity would make TTF's automatic transfers to the budget uncertain and deplete the CIF in the medium term.	Accelerate fiscal consolidation to maintain buffers in the CIF. This includes containing current spending, prioritizing capital spending, and mobilizing tax revenue.
Withdrawal of correspondent banking relationships	**Medium** Tuvalu's limited access to international banking services could be further constrained by loss of correspondent banking relations.	**High** The loss of correspondent banking relationships would hinder financial inclusion resulting in lower output.	Implement financial supervision framework. Explore the use of mobile banking and fintech.
Domestic risks			
Poor governance of public enterprises and banks	**High** Poor SOE governance and the lack of bank supervision could lead to higher NPLs, constraining banks' lending capacity and increasing reliance on government support.	**Medium** The constrained lending capacity of banks would hinder financial inclusion. The weak financial performance of SOEs would create contingent liabilities for the government.	Implement financial supervision and advance public enterprise reform to increase accountability.

1/ The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood 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 between 30 and 50 percent). 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. "Short term" and "medium term" are meant to indicate that the risk could materialize within 1 year and 3 years, respectively.

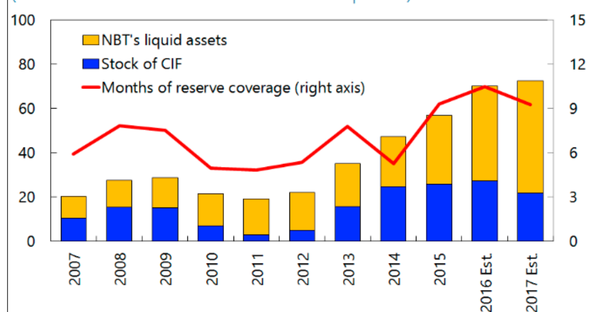
Appendix II. External Sector Assessment

Staff assesses that Tuvalu's external position in 2017 was broadly in line with medium-term fundamentals and desirable policies, despite a moderate REER appreciation in recent years. However, there is substantial uncertainty around this assessment, as analysis is hampered by data limitations.

Though external sector analysis is hampered by data limitations, reserves data suggest that the external position is broadly sound. The latest detailed balance of payments data are for 2012. However, recent data on reserves and partial data for the current account suggest that the external position remains broadly sound, with gross reserves rising slightly in 2017 and reserve coverage equaling 9 months of imports. Over the medium term, reserves are projected to decline moderately due to a widening fiscal deficit (Table 2).

Gross Reserves

(In millions of Australian dollars unless otherwise specified)



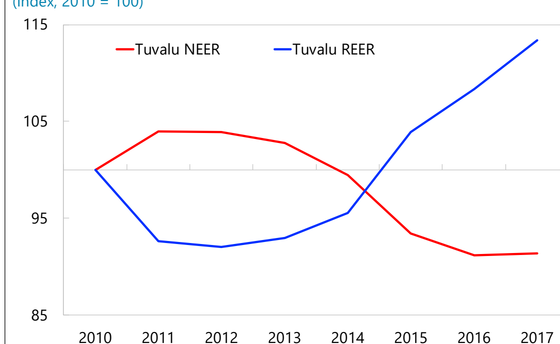
1/ Ratio of international reserves to next year's imports of goods and services, in months.

Source: Country authorities; and IMF staff estimates.

Tuvalu's Real Effective Exchange Rate (REER) has appreciated in recent years due to higher inflation. Tuvalu's REER continued to appreciate by 5 percent in 2017 due to relatively high inflation, while Tuvalu's Nominal Effective Exchange Rate (NEER) depreciated due to the weakened Australian dollar. The inflationary pressures have stemmed from higher food prices, increased transportation costs, and expansionary fiscal policy. Restrained current spending would help contain inflationary pressure and maintain adequate exchange rate alignment. Since the current account balance is driven mostly by exogenous fishing license fees and grants, the REER's role in external sustainability is limited. Nonetheless, overvaluation could weaken Tuvalu's competitiveness and undermine private sector development.

Tuvalu's REER appreciated due to relatively high inflation

(Index, 2010 = 100)



Sources: IMF *WEO database*; and IMF staff calculations.

Staff's bottom-line assessment is that Tuvalu's external position in 2017 was broadly in line with medium-term fundamentals and desirable policy settings. This conclusion reflects the broad stability of reserves and the estimated current account in recent years (Tables 2 and 4).[1] However, this assessment is subject to substantial uncertainty given data limitations and the high volatility of external flows, such as fishing revenue and external grants. The external position could also weaken going forward, if excessive fiscal easing raises inflation and causes the REER to deteriorate further.

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[1] EBA-lite models are not generally appropriate for Tuvalu given data limitations and the high volatility of fishing revenue and external grants.

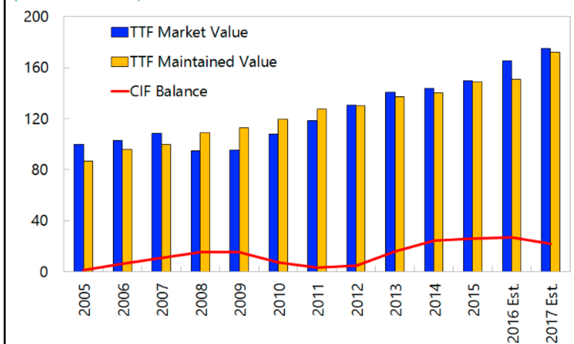
In this context, it is crucial to contain current spending, while improving competitiveness. Improving the business climate, developing the tourism sector, and exploring innovative approaches to supporting growth is critical. This includes strengthening effectiveness of education and training, as well as retaining educated Tuvaluans in the labor force.

The use of the Australian dollar as the legal tender remains appropriate. The use of the Australian dollar provides a strong nominal anchor, given the weak institutional capacity that would hinder the establishment of an independent monetary institution. The close development, trade, and financial linkages with Australia also justify the use of the Australian dollar.

Appendix III. Tuvalu Trust Fund and Tuvalu Survival Fund

Tuvalu Trust Fund (TTF). Tuvalu and its development partners (Australia, New Zealand, and the United Kingdom) established the TTF in 1987. The fund aims to cover revenue shortfalls for current expenditure in the national budget, underpin economic development, and enhance the country's long-term financial sustainability. The initial balance of A$27 million in 1987 has grown to an estimated market value of A$175 million (333 percent of GDP) at end-2017. The major driver for the increase in the fund's market value was favorable investment returns. Development partners (Australia, New Zealand, Japan, and South Korea) and Tuvalu have also made annual or one-off financial contributions to the fund.

Tuvalu Trust Fund and Consoliated Investment Fund
(In millions of AU$)



Sources: Country authorities; and IMF staff calculations.

- **Distribution modality.** When the fund's market value exceeds the maintained value (a baseline that grows with the Australian CPI), the difference is automatically distributed to the Consolidated Investment Fund (CIF), which the government of Tuvalu can draw upon. When the market value of the fund falls below its maintained value, no distributions are made until the fund's market value has reverted to exceeding its maintained value.

- **Financial performance**. Investment returns have been broadly favorable. Returns in the past 5 years were above 7 percent. Since the TTF's inception, its average investment return has been around 7 percent, although in 10 out of the last 25 years there were no distributions due to weak performance. Two Australian investment firms professionally manage the TTF, while the TTF Advisory Committee monitors economic developments in Tuvalu and their impact on the fund. The TTF's fund management has been used for the Tuvalu National Provident Fund (TNPF) and is expected to be used for the Tuvalu Survival Fund (TSF).

Consolidated Investment Fund (CIF). The CIF is a revolving buffer fund under Tuvalu's purview. The CIF was established in 1993 to smooth out TTF contributions to current spending. The CIF receives automatic disbursements from the TTF, when the market value exceeds the maintained value of the fund. To mitigate pauses in automatic distributions from the TTF, the authorities established a minimum floor for the CIF balance at 16 percent of the TTF's maintained value. The 16 percent target was established on the basis of the CIF being able to fund the loss of up to 4 years of automatic distributions from the TTF.

Tuvalu Survival Fund (TSF). The TSF is another buffer fund under Tuvalu's purview. The Tuvaluan government established the TSF in 2015 to mitigate the impact of climate change and respond to natural disasters with prompt spending. The government made contributions to the TSF from the national budget (10 percent of GDP in 2016, and none in 2017 due to a fiscal deficit). The fund's governance structure and investment procedures were established in 2017.

Appendix IV. Macrostructural Challenges

The narrow production base offers limited opportunities for economic diversification. Tuvalu is highly dependent on imports and has only limited room for widening the export base. The tourism industry is largely untapped, contributing less than 1 percent of value added to GDP. Tuvalu has been exploring export product development for coconut derivatives like oil, toddy, or viscous coconut sugar syrup, as well as breadfruit, pulaka (wild taro), and pandanus.

The legal and regulatory environment remains weak. Tuvalu's legal infrastructure is still missing elements necessary for a well-functioning business environment, including a bankruptcy law or legislation relating to customary land. The enforcement of existing laws remains weak due to limited institutional capacity. Tuvalu has not signed up for the World Bank Doing Business assessment.

The infrastructure gap also gives rise to internal migration. The lack of, or inadequate, basic infrastructure remains a barrier to economic development and service delivery, particularly in the outer islands. In the outer islands, the likelihood of poverty is 30 percent higher than on the main island Funafuti. As a result, about half of the population of Tuvalu has migrated primarily to the main island Funafuti from their home island.

Human capital

- **Unemployment.** The unemployment rate is substantial at 37 percent at end-2017. The demand for seafarers has decreased due to rising competition from regional peers. Graduates from Tuvalu Maritime Training Institute (TMTI) have been forced to take up temporary employment in construction.

- **Education.** While primary school enrollment is high, the quality of secondary education and vocational schooling options are limited. Given the decrease in global demand for seafarers, long-term prospects for seafarer training at TMTI and the future of the school remain uncertain. Scholarships, education, and training are not matched well to the needs of the economy.

- **Female labor participation.** Women have been actively participating in education and the labor force. Girls outperform boys across education levels, and the number of women entering the civil service workforce surpasses that of men. Women are actively engaged in small business development, particularly in handicraft and hospitality. Increasingly, women are entering traditionally male dominated fields, including politics, law enforcement, and seafaring.

Appendix V. Authorities' Responses to Policy Advice in the 2016 Article IV Consultation

Fund Recommendations	Policy Actions
International risk sharing against climate change Increase capacity to meet the accreditation and fiduciary standards of multilateral initiatives for timely access to financing. Explore options for disaster insurance to spread the financial burden of recovering from natural disaster.	Tuvalu has taken actions to meet fiduciary standards of multilateral financing schemes. The government has adopted the Public Financial Management (PFM) Roadmap 2017-21 to strengthen implementation capacity. Policy coordination has improved with the establishment of the National Advisory Council on Climate Change (NACCC), which reports directly to the Cabinet. Against this backdrop, Tuvalu is the first Pacific economy that secured access to the Green Climate Fund in 2017, which has funded the Tuvalu Coastal Adaptation Project (TCAP).
Fiscal Buffers Target a small structural fiscal surplus (around one percent of GDP) over the medium-to-long term to maintain space for climate resilient infrastructure investment and make progress towards medium-term fiscal targets.	Although the government understands the importance of fiscal prudence, the government has not yet adopted a medium-term fiscal framework to target a small structural fiscal surplus. The fiscal balance was in surplus at 7 percent of GDP in 2016, but turned into a deficit of 4 percent of GDP in 2017 due to increased capital expenditure.
Public Financial Management (PFM) Improve the fiscal management framework (capital budgeting and public financial management) to guide the medium-term budgeting process.	Implementation of the PFM Roadmap 2017-21 has helped improve treasury reporting, tax audit, and cash management. Capital budgeting has improved by consolidating Special Infrastructure and Special Development Expenditure in capital expenditure items. The authorities are considering a multi-year rolling budget framework for capital investment to ensure the completion of projects.
Public Enterprises Enhance the government oversight of public enterprises in the Public Enterprise Review and Monitoring Unit (PERMU), including staffing continuity and workforce planning. A comprehensive action plan is urgently needed to restore financial viability.	The authorities have strengthened the oversight of public enterprises. The government collects quarterly reports from the major public enterprises and closely monitors their financial performance. The PERMU has maintained dedicated staff, but is under resourced. With the assistance of the Asian Development Bank (public enterprise specialist TA report), the authorities have had a comprehensive review of the financial conditions of public enterprises. The authorities continue to be committed to strengthening the monitoring of public enterprises.
Financial supervision The financial sector needs effective oversight. The DBT needs additional capital to increase lending. Broader efforts to enhance financial literacy are needed.	The authorities have agreed to hire an external financial supervisor and develop a 3-year supervision strategy with Pacific Technical Assistance Center (PFTAC) assistance. To improve their lending capacity, the bank is considering a concessional loan from the European Investment Bank. The government has provided credit guarantees for DBT loans with a view to increasing lending. The authorities have not taken specific measures to enhance financial literacy.

INTERNATIONAL MONETARY FUND

TUVALU

June 7, 2018

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

Approved By
James Daniel, Kevin Fletcher (IMF), and John Panzer (IDA)

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

The DSA concludes that Tuvalu remains at a high risk of debt distress, in line with the 2016 DSA conclusion. External debt has breached several thresholds as of 2017, including for the present value of debt-to-GDP. Risks to debt sustainability remain high due to elevated current spending, a projected decline in fishing revenue and grants, and risks of natural disasters. A persistent fiscal deficit is projected to deplete fiscal buffers and cause the present value of debt-to-GDP to breach its indicative threshold in the long run. This underscores the importance of containing the fiscal deficit and maintaining buffers.

RECENT DEBT DEVELOPMENTS

1. The government's external liabilities are a mix of concessional and commercial debt. Total public and publicly guaranteed debt (PPG) is estimated at 37 percent of GDP as of end-2017, mostly consisting of external debt. Bilateral donors provide only grant assistance, while multilateral development institutions, including the ADB, have provided both concessional loans and grants. Loans on non-concessional terms for the three fishing joint ventures—established by the National Fishing Corporation of Tuvalu (NAFICOT) and Asian companies—account for a large share of public debt. These loans are guaranteed by the government, constituting contingent liabilities.

2. External assets remain sizeable, but not fully sovereign. The Tuvalu Trust Fund (TTF), capitalized mainly by development partners, grew to 333 percent of GDP at end-2017. The TTF is not fully sovereign and cannot be drawn down freely: when its market value exceeds the "maintained value," which is indexed to the Australian CPI, the difference is automatically distributed to the Consolidated Investment Fund (CIF), which stands at 42 percent of GDP at end-2017. The transfers are deposited into the CIF, a cash buffer which the government of Tuvalu can draw upon to finance fiscal expenditure. Since the Tuvaluan government's access to the TTF is conditional, this DSA analyzes gross public debt, as in the 2016 DSA.

UNDERLYING ASSUMPTIONS

3. The baseline macroeconomic framework:

- **Real GDP growth** is projected to moderate in the long run. After reaching 4.3 percent this year, growth is projected to remain robust at 4 percent in the medium term, factoring in the implementation of infrastructure projects funded by development partners, including the Green Climate Fund. Growth is projected to slow to 2 percent in the long run, constrained by limited capacity, weak competitiveness, and inefficient SOEs. This also includes the average cost of natural disasters, which is estimated at 1 percent of GDP per year.

- **Inflation** is projected to reach 4 percent this year on higher public wages. Inflation is expected to moderate to 3 percent in the medium term, and 2 percent in the long run, as economic growth slows gradually.

- **The balance of payments.** The current account is projected to record a deficit of 10 percent of GDP in the medium term due to higher imports needed for infrastructure projects. Revenues from fishing license fees are projected at 46 percent of GDP on average in the medium term, weakening from 50 percent in 2017. FDI inflows would continue to be limited.

- **The fiscal deficit** is projected to widen due to moderating revenue and high current spending, resulting in an increase in concessional borrowing in the long run. Fishing revenues are projected to remain subdued relative to GDP with the waning of El Nino cycle. Grants are assumed to fall steadily, considering the uncertainty of donors' commitments. Current spending would remain elevated on a steady increase in wages, purchases of goods and services, healthcare, and scholarship programs. Capital spending is projected at around 10 percent of GDP on infrastructure development, but is projected to decline gradually due to limited fiscal space. Thus, the fiscal deficit is expected to widen to 5 percent of GDP in the medium term, and 7 percent in the long term. The domestic current deficit—excluding fishing revenues, grants, and capital expenditure—is projected to remain elevated at 65 percent of GDP.

DEBT SUSTAINABILITY

A. Baseline Scenario

4. External debt has breached several thresholds as of 2017 and is projected to breach them again in the long run.[1]

- External debt has breached the thresholds as of 2017, including on the present value of debt-to-GDP, present value of debt-to-exports, and debt service-to-exports. However, the ratios relative to exports are not very meaningful indicators for Tuvalu because Tuvalu's external income is almost entirely in the form of fishing license fees rather than export receipts.

- In the medium term, debt-to-GDP is projected to decline on amortization of existing loans and limited borrowing. The spike in the debt service profile in 2021 reflects one-off repayments for a Korean joint venture fishing vessel. The government is expected to finance the fiscal deficits, including payments of the outstanding debt, through drawdowns of the CIF. The drawdown of the CIF explains the large negative residuals in the DSA tables (Table 1, Table 2).

- In the long run, as the government depletes the fiscal buffers, concessional borrowing starts to increase in the early 2030s. The grant element of new borrowing is projected to increase sharply, as the authorities borrow concessional loans from development partners, including the ADB. Borrowing is expected to increase as fiscal buffers fall below prudent levels (e.g., three months of current expenditures), causing several debt indicators to breach their thresholds (Figure 1). New borrowing is expected to originate from external sources, as Tuvalu's weak banking sector precludes domestic financing.

B. Alternative Scenarios

5. Alternative scenarios. Three hypothetical scenarios are projected, including natural disasters, a sharp decline in fishing revenue, and on the upside, sustained donor support (Figure 3, Figure 4).

- **Natural disaster shock.** In this scenario, a big cyclone is assumed to impact Tuvalu in 2028. The magnitude of the cyclone is assumed to be similar to that of Cyclone Pam, with damage of near

[1] The threshold for PV of debt-to-GDP is determined by the World Bank's Country Policy and Institutional Assessment (CPIA) index, a measure of the country's institutional capacity.

30 percent of GDP. Under this hypothetical scenario, recovery and rehabilitation programs would widen the fiscal deficit to 10 percent of GDP in 2028, compared to a deficit of 6 percent of GDP in the baseline. The increase in the fiscal deficit is partly mitigated by an increase in donor aid and a drawdown of the Tuvalu Survival Fund, which is projected at 18 percent of GDP at end-2027. The fiscal deficit increases slightly in the following years to 12 percent of GDP in 2029 and 11 percent of GDP in 2030, as the government repairs infrastructure damages. The higher fiscal deficits would accelerate the depletion of fiscal buffers, causing the present value of debt-to-GDP to breach its threshold earlier than in the baseline.

- **Fishing revenue shock.** In this scenario, fishing revenue is assumed to decline sharply from 2028-32 due to changes in weather patterns. As a result, fishing revenue is assumed to fall to 40 percent of GDP (the average of three recent years), widening the fiscal deficit to 15 percent of GDP. The impact would be substantial, draining fiscal buffers and increasing the present value of debt-to-GDP such that it would breach its threshold earlier than in the baseline.

- **Positive grant shock.** In an upside scenario, grants are assumed to remain high on favorable global economic and financial conditions.[2] Under this scenario, grants are projected to remain at 18 percent of GDP (the average of grants in the past four years in absolute amount) from 2019 onwards. Debt-to-GDP would remain well below its threshold.

6. These scenarios show that the debt trajectory is vulnerable to fishing revenue and natural disaster shocks. Fishing revenue fallouts or natural disasters could accelerate the depletion of fiscal buffers. This would result in the present value of debt-to-GDP ratio breaching its threshold earlier than in the baseline. On the upside, continuing donor support could help contain fiscal deficits and keep debt-to-GDP below the threshold.[3]

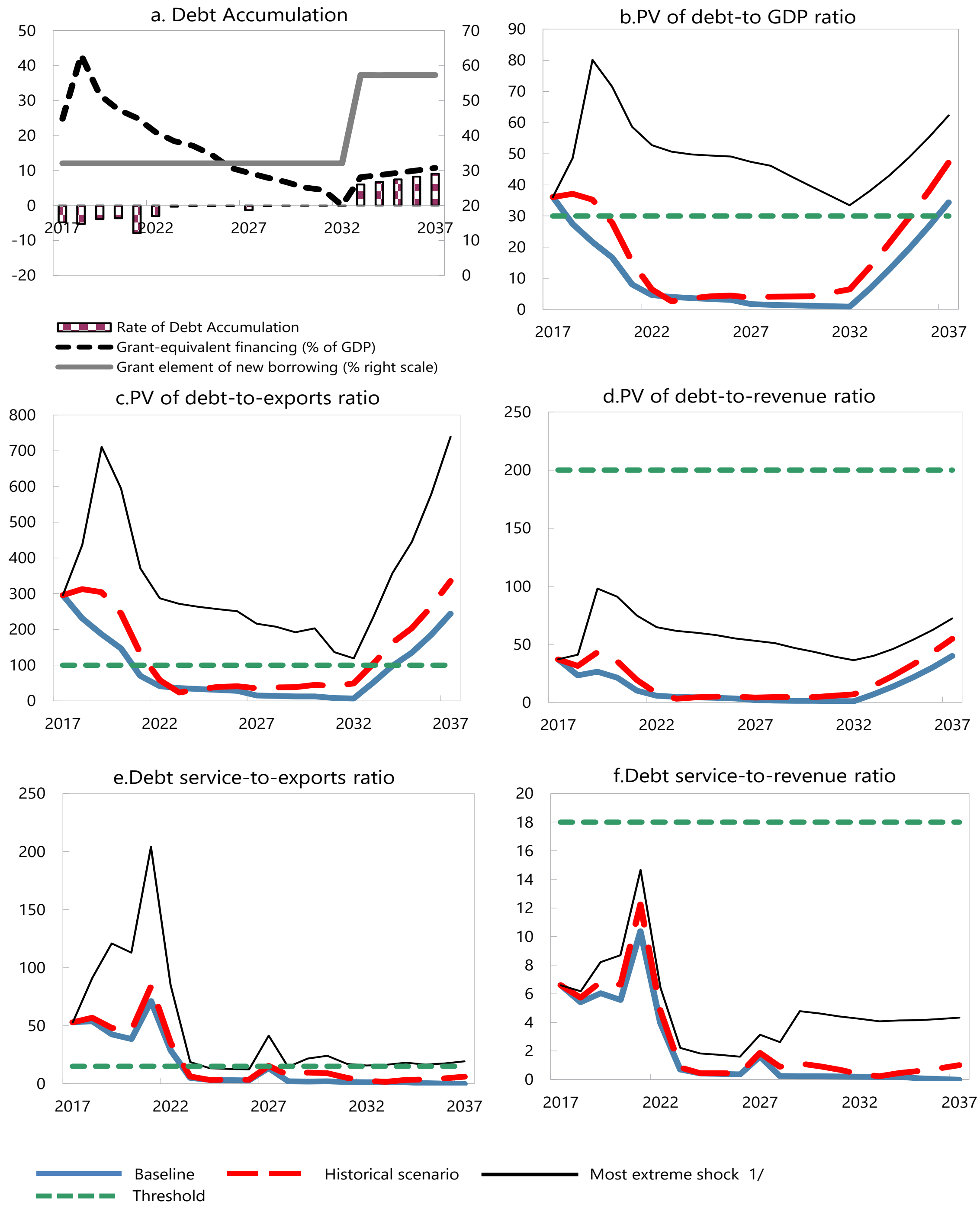
C. Conclusions

7. Tuvalu's DSA points to a continued high risk of debt distress, in line with the 2016 DSA conclusion. Under the baseline scenario, the fiscal balance is projected to move into a deficit from 2019 onwards, due to moderating revenues and high current spending. External debt-to-GDP levels are projected to breach thresholds in the long run, as the CIF balance declines and external borrowing increases. This debt trajectory highlights the importance of containing the fiscal deficit to lower the risk of debt distress. This would help maintain sufficient fiscal space to withstand natural disasters or fishing revenue fallouts.

[2] The baseline scenario projects a steady decline in donor grants to zero by 2032.

[3] In each scenario, debt service to exports or revenue ratios would remain well below their indicative thresholds, given concessional borrowing featuring extended grace periods, long maturity, and favorable interest rates.

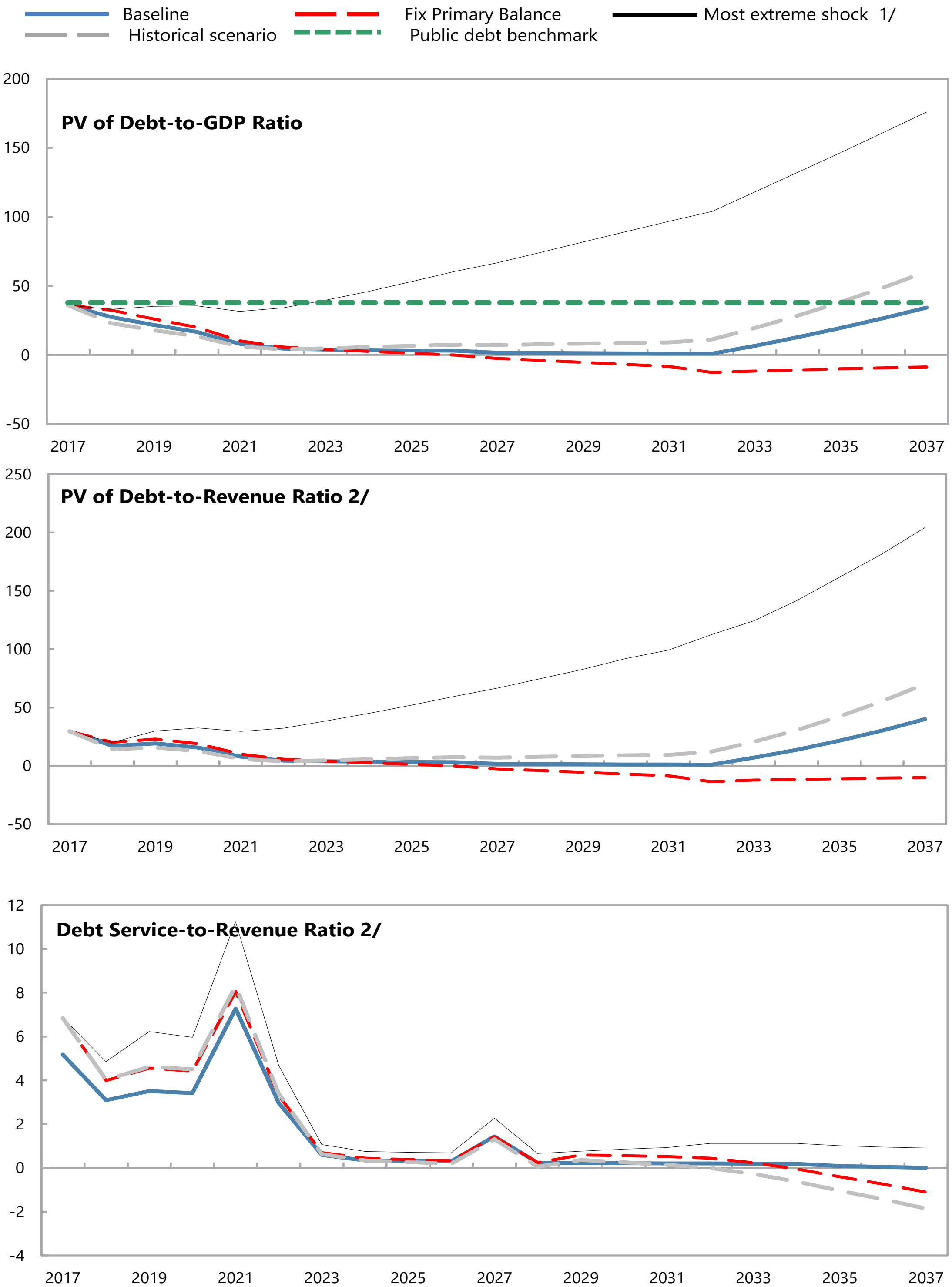
Figure 1. Tuvalu: Indicators of Public and Publicly Guaranteed External Debt under Baseline Scenarios, 2017-37 1/



Sources: Country authorities; and staff estimates and projections.

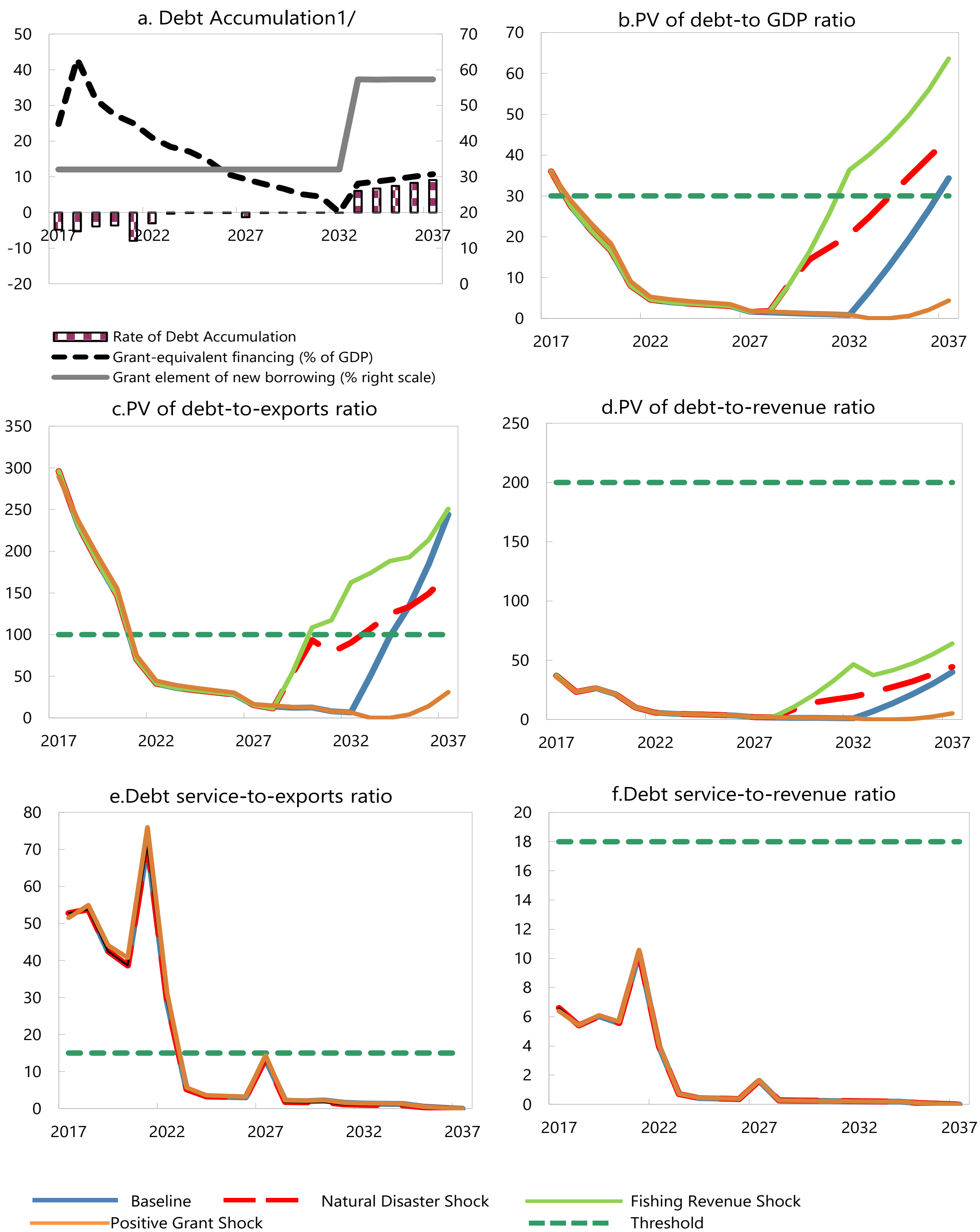
1/ The most extreme stress test is the test that yields the highest ratio on or before 2027. In figure b, it corresponds to a Combination shock; in c, to a Exports shock; in d, to a Combination shock; in e, to a Exports shock and in figure f, to a Combination shock.

Figure 2. Tuvalu: Indicators of Public Debt Under Baseline Scenarios, 2017-37 1/



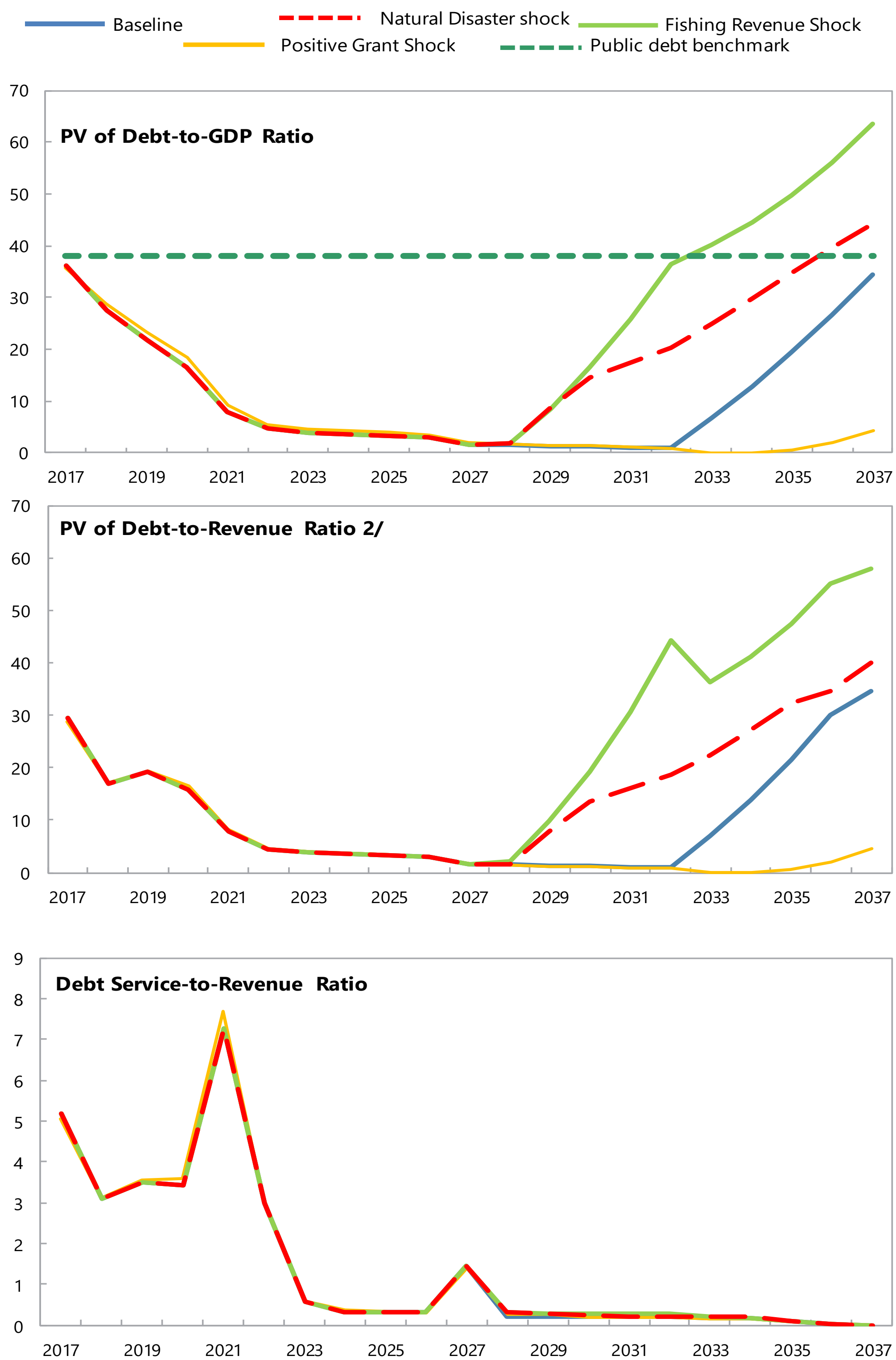
Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio on or before 2027.
2/ Revenues are defined inclusive of grants.

Figure 3. Tuvalu: Indicators of Public and Publicly Guaranteed External Debt under Alternative Scenarios, 2017-37 1/



Sources: Country authorities; and staff estimates and projections.
1/ Debt accumulation is under the natural disaster shock.

Figure 4. Tuvalu: Indicators of Public Debt Under Alternative Scenarios, 2017-37 1/



Sources: Country authorities; and staff estimates and projections.

Table 1. Tuvalu: External Debt Sustainability Framework, Baseline Scenario, 2014-2037
(in percent of GDP, unless otherwise indicated)

	Actual			Historical 6/	Standard 6/	Projections									
				Average	Deviation							2017-2022			2023-2037
	2014	2015	2016			2017	2018	2019	2020	2021	2022	Average	2027	2037	Average
External debt (nominal) 1/	**59.9**	**53.5**	**45.4**			**37.0**	**27.6**	**21.8**	**16.7**	**8.1**	**4.6**		**1.4**	**76.3**	
of which: public and publicly guaranteed (PPG)	59.9	53.4	45.4			37.0	27.6	21.8	16.7	8.1	4.6		1.4	76.3	
Change in external debt	38.1	-6.4	-8.1			-8.4	-9.4	-5.8	-5.1	-8.7	-3.5		-1.4	16.3	
Identified net debt-creating flows	-2.0	56.9	-23.9			-6.6	-5.9	1.1	10.8	12.4	14.6		5.0	2.0	
Non-interest current account deficit	**-3.4**	**50.1**	**-25.6**	**4.8**	**24.9**	**-8.0**	**-6.8**	**0.2**	**10.0**	**11.6**	**13.8**		**4.2**	**2.4**	4.0
Deficit in balance of goods and services	121.4	215.9	135.0			140.9	153.7	139.8	139.5	128.5	126.2		99.9	81.9	
Exports	10.1	13.1	14.0			12.2	11.9	11.6	11.3	11.4	11.2		10.7	14.1	
Imports	131.5	229.0	149.0			153.1	165.5	151.4	150.8	140.0	137.4		110.7	96.0	
Net current transfers (negative = inflow)	-59.1	-80.1	-67.6	-53.2	13.8	-79.2	-61.3	-75.6	-68.4	-55.8	-49.3		-24.2	-10.6	-20.1
of which: official	-59.1	-80.1	-67.6			-79.2	-61.3	-75.6	-68.4	-55.8	-49.3		-24.2	-10.6	
Other current account flows (negative = net inflow)	-65.7	-85.7	-93.0			-69.7	-99.2	-64.0	-61.1	-61.2	-63.0		-71.5	-68.9	
Net FDI (negative = inflow)	**0.8**	**0.8**	**0.8**	**1.6**	**2.4**	**0.8**	**0.8**	**0.8**	**0.8**	**0.8**	**0.8**		**0.8**	**0.8**	0.8
Endogenous debt dynamics 2/	**0.6**	**6.1**	**1.0**			**0.6**	**0.1**	**0.2**	**0.1**	**0.1**	**0.0**		**0.0**	**-1.2**	
Contribution from nominal interest rate	0.5	3.0	2.5			2.0	1.5	1.2	0.9	0.7	0.3		0.1	0.0	
Contribution from real GDP growth	-0.3	-5.8	-1.6			-1.3	-1.4	-1.0	-0.9	-0.7	-0.3		-0.1	-1.2	
Contribution from price and exchange rate changes	0.5	8.8	0.1			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**40.1**	**-63.3**	**15.8**			**-1.7**	**-3.4**	**-6.9**	**-15.9**	**-21.1**	**-18.1**		**-6.4**	**14.3**	
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/	...	...	45.0			36.1	27.4	21.7	16.7	8.0	4.6		1.7	34.4	
In percent of exports	...	...	320.9			296.2	231.2	187.1	147.1	70.4	41.4		15.6	244.2	
PV of PPG external debt	**...**	**...**	**45.0**			**36.0**	**27.4**	**21.7**	**16.6**	**8.0**	**4.6**		**1.7**	**34.4**	
In percent of exports	**...**	**...**	**320.6**			**296.0**	**231.0**	**186.8**	**146.9**	**70.2**	**41.3**		**15.5**	**244.1**	
In percent of government revenues	**...**	**...**	**39.9**			**37.0**	**23.2**	**26.5**	**21.2**	**10.2**	**5.7**		**1.9**	**39.9**	
Debt service-to-exports ratio (in percent)	**16.4**	**61.2**	**52.5**			**52.8**	**53.8**	**42.5**	**38.7**	**71.3**	**28.8**		**13.4**	**0.0**	
PPG debt service-to-exports ratio (in percent)	**16.4**	**61.2**	**52.5**			**52.8**	**53.8**	**42.5**	**38.7**	**71.3**	**28.8**		**13.4**	**0.0**	
PPG debt service-to-revenue ratio (in percent)	**2.2**	**7.9**	**6.5**			**6.6**	**5.4**	**6.0**	**5.6**	**10.4**	**4.0**		**1.6**	**0.0**	
Total gross financing need (Millions of U.S. dollars)	-0.3	20.9	-6.4			-0.3	0.2	2.9	8.0	11.7	11.0		5.0	3.7	
Non-interest current account deficit that stabilizes debt ratio	-41.5	56.5	-17.5			0.4	2.6	6.0	15.1	20.2	17.3		5.6	-13.9	
Key macroeconomic assumptions															
Real GDP growth (in percent)	1.3	9.1	3.0	2.9	5.2	3.2	4.3	4.1	4.4	4.2	4.1	4.1	2.0	2.0	2.2
GDP deflator in US dollar terms (change in percent)	-2.1	-12.8	-0.2	2.4	9.9	6.7	6.9	4.1	4.1	3.8	3.5	4.8	2.0	2.0	2.1
Effective interest rate (percent) 5/	2.2	4.8	4.7	2.6	1.6	4.7	4.6	4.8	4.7	4.7	3.8	4.6	3.5	0.0	1.7
Growth of exports of G&S (US dollar terms, in percent)	4.7	23.8	9.8	26.7	62.6	-4.4	8.6	5.9	6.0	9.2	5.5	5.1	3.6	1.3	6.4
Growth of imports of G&S (US dollar terms, in percent)	2.4	65.8	-33.1	9.3	28.0	13.2	20.5	-0.9	8.2	0.4	5.8	7.9	1.2	1.5	1.8
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	57.3	40.4
Government revenues (excluding grants, in percent of GDP)	75.7	102.3	112.7			97.5	118.1	81.8	78.5	78.6	81.3		89.6	86.1	89.4
Aid flows (in Millions of US dollars) 7/	10.5	12.1	9.2			10.0	19.3	15.4	14.5	14.3	12.9		7.3	0.0	
of which: Grants	10.5	12.1	9.2			10.0	19.3	15.4	14.5	14.3	12.9		7.3	0.0	
of which: Concessional loans	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			24.8	43.0	31.6	27.4	25.0	21.0		9.3	10.7	9.4
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			99.9	99.9	99.9	99.9	99.9	99.9		99.7	57.3	80.9
Memorandum items:															
Nominal GDP (Millions of US dollars)	37.3	35.6	36.6			40.3	44.9	48.7	52.9	57.2	61.6		78.1	115.5	
Nominal dollar GDP growth	-0.7	-4.8	2.9			10.1	11.5	8.4	8.6	8.2	7.8	9.1	4.0	4.1	4.3
PV of PPG external debt (in Millions of US dollars)			16.2			14.5	12.3	10.6	8.8	4.6	2.8		1.3	39.8	
(PVt-PVt-1)/GDPt-1 (in percent)						-4.8	-5.3	-3.9	-3.6	-8.0	-3.1	-4.8	-1.3	9.1	2.3
Gross workers' remittances (Millions of US dollars)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of PPG external debt (in percent of GDP + remittances)	...	...	45.0			36.0	27.4	21.7	16.6	8.0	4.6		1.7	34.4	
PV of PPG external debt (in percent of exports + remittances)	...	...	320.6			296.0	231.0	186.8	146.9	70.2	41.3		15.5	244.1	
Debt service of PPG external debt (in percent of exports + remittance	...	...	52.5			52.8	53.8	42.5	38.7	71.3	28.8		13.4	0.0	

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; drawdowns of the CIF; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

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

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

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

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

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

Table 2. Tuvalu: Public Sector Debt Sustainability Framework, Baseline Scenario, 2014-2037
(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2014	2015	2016	Average 5/	Standard Deviation 5/	2017	2018	2019	2020	2021	2022	2017-22 Average	2027	2037	2023-37 Average
Public sector debt 1/	64.5	56.9	47.2			37.0	27.6	21.8	16.7	8.1	4.6		1.4	76.3	
of which: foreign-currency denominated	59.9	53.4	45.4			37.0	27.6	21.8	16.7	8.1	4.6		1.4	76.3	
Change in public sector debt	37.2	-7.6	-9.7			-10.3	-9.4	-5.8	-5.1	-8.6	-3.5		-1.4	16.3	
Identified debt-creating flows	5.2	-12.9	-7.6			0.8	-9.1	3.1	3.4	4.4	4.8		5.4	12.6	
Primary deficit	4.6	-15.2	-7.3	2.3	17.4	3.4	-6.5	4.1	4.2	5.0	5.2	2.6	5.4	15.0	8.3
Revenue and grants	103.8	136.3	138.0			122.2	161.0	113.4	105.9	103.6	102.3		98.9	86.1	
of which: grants	28.1	34.0	25.3			24.8	42.9	31.6	27.4	25.0	21.0		9.3	0.0	
Primary (noninterest) expenditure	108.3	121.2	130.7			125.7	154.5	117.4	110.1	108.6	107.5		104.4	101.1	
Automatic debt dynamics	0.7	2.3	-0.3			-2.6	-2.5	-0.9	-0.8	-0.5	-0.3		0.0	-2.3	
Contribution from interest rate/growth differential	-0.3	-3.9	0.0			-0.1	-0.5	-0.3	-0.3	-0.2	-0.2		0.0	-2.1	
of which: contribution from average real interest rate	0.1	1.5	1.7			1.4	1.0	0.8	0.6	0.5	0.2		0.1	-0.9	
of which: contribution from real GDP growth	-0.4	-5.4	-1.7			-1.5	-1.5	-1.1	-0.9	-0.7	-0.3		-0.1	-1.2	
Contribution from real exchange rate depreciation	1.0	6.2	-0.3			-2.4	-1.9	-0.6	-0.5	-0.3	-0.1		...	...	
Other identified debt-creating flows	-0.1	-0.1	-0.1			-0.1	-0.1	-0.1	-0.1	-0.1	-0.1		-0.1	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)	-0.1	-0.1	-0.1			-0.1	-0.1	-0.1	-0.1	-0.1	-0.1		-0.1	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	32.0	5.4	-2.0			-11.0	-0.3	-8.9	-8.5	-13.0	-8.3		-6.8	3.7	
Other Sustainability Indicators															
PV of public sector debt	...	...	46.8			36.0	27.4	21.7	16.6	8.0	4.6		1.7	34.4	
of which: foreign-currency denominated	...	...	45.0			36.0	27.4	21.7	16.6	8.0	4.6		1.7	34.4	
of which: external	...	...	45.0			36.0	27.4	21.7	16.6	8.0	4.6		1.7	34.4	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	7.9	-9.3	-0.8			9.8	-1.5	8.0	7.8	12.5	8.2		6.8	15.0	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	33.9			29.5	17.0	19.1	15.7	7.7	4.5		1.7	39.9	
PV of public sector debt-to-revenue ratio (in percent)	...	...	41.6			37.0	23.2	26.5	21.2	10.2	5.7		1.9	39.9	
of which: external 3/	...	...	39.9			37.0	23.2	26.5	21.2	10.2	5.7		1.9	39.9	
Debt service-to-revenue and grants ratio (in percent) 4/	3.2	4.3	4.7			5.2	3.1	3.5	3.4	7.3	3.0		1.4	0.0	
Debt service-to-revenue ratio (in percent) 4/	4.4	5.8	5.8			6.5	4.2	4.9	4.6	9.6	3.7		1.6	0.0	
Primary deficit that stabilizes the debt-to-GDP ratio	-32.6	-7.6	2.4			13.7	2.9	9.9	9.3	13.6	8.7		6.8	-1.3	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	1.3	9.1	3.0	2.9	5.2	3.2	4.3	4.1	4.4	4.2	4.1	4.1	2.0	2.0	2.2
Average nominal interest rate on forex debt (in percent)	2.2	4.8	4.7	2.6	1.6	4.8	4.6	4.8	4.7	4.7	3.8	4.6	3.5	0.0	1.7
Average real interest rate on domestic debt (in percent)	2.0	2.3	5.9	4.1	1.8	6.3	...	...	...	...	...	6.3	...	...	...
Real exchange rate depreciation (in percent, + indicates depreciation	4.6	11.1	-0.5	1.2	14.5	-5.4	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	5.1	4.6	1.0	2.1	1.8	3.5	3.6	3.4	3.5	3.4	3.1	3.4	2.0	2.0	2.1
Growth of real primary spending (deflated by GDP deflator, in percer	32.8	22.1	11.2	6.6	11.8	-0.8	28.3	-20.9	-2.1	2.8	3.1	1.7	1.0	0.5	1.7
Grant element of new external borrowing (in percent)	...	...	...	...	...	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	57.3	...

Sources: Country authorities; and staff estimates and projections.

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

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

3/ Revenues excluding grants.

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

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

Table 3. Tuvalu: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2017-2037 (In percent)

	Projections							
	2017	2018	2019	2020	2021	2022	**2027**	2037
PV of debt-to GDP ratio								
Baseline	36	27	22	17	8	5	**2**	34
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	36	37	35	28	15	6	**4**	47
A2. New public sector loans on less favorable terms in 2017-2037 2	36	28	22	17	8	5	**2**	58
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	36	29	25	19	9	5	**2**	39
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	36	31	29	24	15	11	**8**	37
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	36	32	28	22	10	6	**2**	45
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	36	43	62	55	45	40	**36**	49
B5. Combination of B1-B4 using one-half standard deviation shocks	36	49	80	72	59	53	**47**	62
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	36	38	30	23	11	6	**2**	48
PV of debt-to-exports ratio								
Baseline	296	231	187	147	70	41	**15**	244
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	296	313	304	245	133	58	**35**	335
A2. New public sector loans on less favorable terms in 2017-2037 2	296	232	188	147	71	42	**16**	410
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	296	232	187	147	70	41	**16**	244
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	296	437	711	594	371	287	**216**	739
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	296	232	187	147	70	41	**16**	244
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	296	366	535	488	395	362	**338**	346
B5. Combination of B1-B4 using one-half standard deviation shocks	296	409	691	632	514	472	**442**	443
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	296	232	187	147	70	41	**16**	244
PV of debt-to-revenue ratio								
Baseline	37	23	27	21	10	6	**2**	40
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	37	31	43	35	19	8	**4**	55
A2. New public sector loans on less favorable terms in 2017-2037 2	37	23	27	21	10	6	**2**	67
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	37	25	30	24	12	6	**2**	45
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	37	26	36	31	19	14	**9**	43
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	37	27	35	28	13	7	**2**	52
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	37	37	76	70	58	50	**41**	57
B5. Combination of B1-B4 using one-half standard deviation shocks	37	41	98	91	75	65	**53**	72
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	37	32	37	29	14	8	**3**	56

Table 3. Tuvalu: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2017-2037 (concluded) (In percent)

Debt service-to-exports ratio

Baseline	53	54	43	39	71	29	**13**	0
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	53	57	48	46	84	35	**16**	6
A2. New public sector loans on less favorable terms in 2017-2037 2	53	54	43	39	71	29	**13**	12
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	53	54	43	39	71	29	**13**	4
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	53	91	121	113	204	85	**41**	19
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	53	54	43	39	71	29	**13**	4
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	53	54	46	47	79	37	**20**	20
B5. Combination of B1-B4 using one-half standard deviation shocks	53	61	58	60	101	47	**26**	27
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	53	54	43	39	71	29	**13**	4

Debt service-to-revenue ratio

Baseline	7	5	6	6	10	4	**2**	0
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2017-2037 1/	7	6	7	7	12	5	**2**	1
A2. New public sector loans on less favorable terms in 2017-2037 2	7	5	6	6	10	4	**2**	2
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2018-2019	7	6	7	6	12	5	**2**	1
B2. Export value growth at historical average minus one standard deviation in 2018-2019 3/	7	5	6	6	11	4	**2**	1
B3. US dollar GDP deflator at historical average minus one standard deviation in 2018-2019	7	6	8	7	13	5	**2**	1
B4. Net non-debt creating flows at historical average minus one standard deviation in 2018-2019 4/	7	5	7	7	12	5	**2**	3
B5. Combination of B1-B4 using one-half standard deviation shocks	7	6	8	9	15	6	**3**	4
B6. One-time 30 percent nominal depreciation relative to the baseline in 2018 5/	7	8	8	8	14	6	**2**	1
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	37	37	37	37	37	37	**37**	37

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 b
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 th an offsetting adjustment in import levels).
4/ Includes official and private transfers and FDI.
5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.
6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

Table 4. Tuvalu: Sensitivity Analysis for Key Indicators of Public Debt, 2017-2037
(In percent)

	Projections							
	2017	2018	2019	2020	2021	2022	2027	2037
PV of Debt-to-GDP Ratio								
Baseline	36	27	22	17	8	5	2	34
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	36	23	18	14	6	4	7	60
A2. Primary balance is unchanged from 2017	36	33	26	20	10	6	-3	-9
A3. Permanently lower GDP growth 1/	36	27	23	19	12	12	35	189
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-20	36	33	35	35	32	34	67	176
B2. Primary balance is at historical average minus one standard deviations in 2018-201	36	43	46	40	30	26	23	52
B3. Combination of B1-B2 using one half standard deviation shocks	36	39	37	35	29	28	46	122
B4. One-time 30 percent real depreciation in 2018	36	40	33	26	16	12	9	24
B5. 10 percent of GDP increase in other debt-creating flows in 2018	36	33	26	21	12	9	6	39
PV of Debt-to-Revenue Ratio 2/								
Baseline	29	17	19	16	8	5	2	40
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	29	14	16	13	6	4	7	70
A2. Primary balance is unchanged from 2017	29	20	23	19	10	6	-3	-10
A3. Permanently lower GDP growth 1/	29	17	20	18	12	11	35	219
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-20	29	20	30	32	30	32	67	204
B2. Primary balance is at historical average minus one standard deviations in 2018-201	29	27	41	37	29	25	23	60
B3. Combination of B1-B2 using one half standard deviation shocks	29	24	32	32	27	27	46	141
B4. One-time 30 percent real depreciation in 2018	29	25	29	25	15	12	9	28
B5. 10 percent of GDP increase in other debt-creating flows in 2018	29	20	23	20	12	8	6	45
Debt Service-to-Revenue Ratio 2/								
Baseline	5	3	4	3	7	3	1	0
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	7	4	5	5	8	3	1	-2
A2. Primary balance is unchanged from 2017	7	4	5	4	8	3	1	-1
A3. Permanently lower GDP growth 1/	7	4	5	4	8	4	2	7
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2018-20	7	4	5	5	9	4	3	8
B2. Primary balance is at historical average minus one standard deviations in 2018-201	7	4	5	5	9	4	2	2
B3. Combination of B1-B2 using one half standard deviation shocks	7	4	5	5	9	4	3	6
k655	7	5	6	6	11	5	2	1
B5. 10 percent of GDP increase in other debt-creating flows in 2018	7	4	5	4	8	3	2	1

Sources: Country authorities; and staff estimates and projections.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.

2/ Revenues are defined inclusive of grants.

INTERNATIONAL MONETARY FUND

TUVALU

June 7, 2018

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By

Staff Representatives for the 2018 Consultation with Tuvalu

CONTENTS

FUND RELATIONS

(As of April 30, 2018)

Membership Status
Joined June 24, 2010; Article VIII

General Resource Account

	SDR Million	% Quota
Quota	2.50	100.00
Fund holdings of currency (Exchange Rate)	1.89	75.72
Reserve Tranche Position	0.61	24.32

SDR Department

	SDR Million	% Allocation
Net cumulative allocation	1.69	100.00
Holdings	1.09	64.33

Outstanding Purchases and Loans: None

Financial Arrangements: None

Projected Payments to the Fund: None

Exchange Arrangements
Tuvalu's legal tender is the Australian dollar. There is no central monetary institution. The National Bank of Tuvalu (NBT) is the only commercial bank in Tuvalu handling foreign exchange transactions. Tuvalu is an Article VIII member and does not maintain exchange restrictions or multiple currency practices subject to Fund approval under Article VIII, Sections 2(a) and 3, respectively.

Article IV Consultation
The previous Article IV consultation discussions were held in Funafuti in May 2016. The staff report (IMF Country Report No. 16/323) was discussed by the Executive Board on September 12, 2016. Tuvalu is on a 24-month consultation cycle.

Technical Assistance
Pacific Financial Technical Assistance Centre (PFTAC) has provided assistance on tax policy and administration (2007, 2008, 2010, 2016, 2017); financial sector supervision (2008, 2016, and 2017); and balance of payments and national accounts statistics (2006, 2008-10, 2012-18).

Resident Representative
The Regional Resident Representative Office for Pacific Islands is based in Suva, Fiji and was opened on September 13, 2010. The office covers Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. Ms. Leni Hunter is the current resident representative.

WORLD BANK-IMF COLLABORATION

The Bank and the Fund teams maintain a close working relationship and have an ongoing dialogue on macroeconomic and structural issues. Since Tuvalu's decision to pursue membership of the Bretton Woods institutions in 2009, the Bank team has regularly joined IMF Article IV missions and staff visits to Tuvalu since the country's membership. The teams agreed that Tuvalu's main macroeconomic challenges are to ensure fiscal sustainability, strengthening public service delivery, and create a more supportive environment for development.

Based on this shared assessment, the teams identified the following structural reform areas, all of which are also addressed in the authorities' reform plan, as macro-critical:

- **Strengthening fiscal buffers.** In the absence of its own currency and monetary policy, sound fiscal policy is key to maintaining macroeconomic stability. Maintenance of buffer assets is key to ensuring sustainability. Maintaining adequate buffer assets will require sound fiscal policy including the saving of cyclical revenues and restraining expenditures, including containing wage bill pressures. Moreover, there remains room to improve public financial management as well as strengthen public sector management to improve budget execution and the effectiveness in public resource utilization.

- **Adapting and responding to climate change.** Tuvalu is one of the countries to be most affected by climate change and rising sea levels. In this context, climate change can lead to both structural and cyclical fiscal costs. To this end, explicitly recognizing the adaptation and response cost in budget will help ensure the continuity and efficiency on both spending and funding fronts. However, continued donor financing will remain important in enhancing the country's ability to cope with natural disasters and climate change, given that the total costs may be too high for small states like Tuvalu to fully internalize by building buffers.

- **Exploring opportunities for poverty reduction, job creation, and private sector development.** Tuvalu's geographic isolation, small size, and poor land quality have made it challenging to generate domestic private sector employment. Adequate education and training needs to be provided for Tuvaluans to better realize overseas job opportunities and to reduce rising poverty. Strengthening oversight of the financial sector will also facilitate improved access to finance and private sector development.

- **Strengthening public service delivery.** The Government of Tuvalu in its National Strategy for Sustainable Development (NSSD), or Te Kakeega III (TKIII), and the medium-term reform agenda identified improving service delivery in the health and education sectors as key objectives. Based on earlier analysis and sector strategic plans, the government is continuing reforms to improve allocative and technical efficiency as well as to ensure sector financing sustainability.

The teams expect to sustain the close cooperation going forward. Attachment 1 details the specific activities implemented and planned by the two teams over the period 2018 to 2020.

Tuvalu: Bank and Fund Implemented/Planned Activities in Macro-Critical Areas 2018-20		
	Products	**Expected/Actual Delivery**
World Bank Work Program	• Joint participation in Article IV Mission	Annual/Biennial
	• Country Policy Institutional Assessment	Annual
	• Tuvalu Aviation Investment Program	Implementing (close FY20)
	• Fourth Budget Support Operation	FY2018
	• Pacific Regional Oceanscape Project	Implementing (close FY20)
	• Energy Project	Implementing (close FY19)
	• Telecom Project	FY2017 – FY18 (close CY18)
IMF Work Program	• PFTAC: National Accounts Mission	April 2018
	• PFTAC: Review Tax Reform	May 2018
	• PFTAC: Implement Risk-Based Supervision System and Upgrade Supervisory Services	Planned for July and November 2018
	• Macroeconomic Programming and Analysis	September 2018

RELATIONS WITH THE ASIAN DEVELOPMENT BANK

A. Partnerships

The Asian Development Bank (ADB) has supported Tuvalu since 1993, approving loans and grants totaling $32.3 million and technical assistance projects worth $8.6 million, largely supporting public sector management, education, and maritime transport sectors. Cumulative disbursements to Tuvalu for lending and grants, financed by concessional ordinary capital resources, the Asian Development Fund, and other special funds amount to $15.5 million.

ADB's approach and operations in Tuvalu are aligned to Tuvalu's eighth national development plan, the National Strategy for Sustainable Development (Te Kakeega III), 2016–2020. ADB's operational focus over the medium term supports the Te Kakeega III's cross-cutting objectives of Infrastructure and Support Services, the Economy, Growth and Stability, Environment, and Climate Change. These strategic priorities are in line with ADB's corporate strategy 2020.

ADB, together with development partners, remain committed to supporting the government's roadmap for improving the management of public resources, exercising prudent public expenditure and fiscal management, strengthening corporate governance, and delivering better public services to the people of Tuvalu.

ADB participates as a team member of the Fund's Article IV Consultation mission to Tuvalu, and liaises closely with the Pacific Financial Technical Assistance Centre (PFTAC) —particularly on macroeconomic management and fiscal conditions.

ADB observes the biannual meetings of the Tuvalu Trust Fund Board and cooperates with civil society organizations in Tuvalu to strengthen the effectiveness, quality, and sustainability of its services.

ADB is also committed to undertaking joint missions with development partners to improve coordination and lessen demands on country capacity.

B. ADB Supported Projects and Programs

From 2012 to 2015, the government embarked on a comprehensive reform program, with technical and financial assistance from ADB, the governments of Australia and New Zealand, and the World Bank. Collaborative efforts—aimed at improved governance, social development, education and human resources, and macroeconomic growth and stability—helped mitigate the social and economic impact of the Global Financial Crisis and protect Tuvalu against future fiscal shocks.

ADB provided grants in 2008, 2012, and 2015, totaling $7.6 million and supporting sound macroeconomic and fiscal management, with improved public enterprise performance. In 2015, ADB approved a $2 million grant, which completed the final set of program reforms. These reforms have helped enhance Tuvalu's public procurement, private sector participation, long-term macroeconomic stability, and economic self-sufficiency. ADB, in collaboration with other development partners, is working towards a subsequent suite of reforms to sustain and build on key fiscal and public financial management measures, with further policy-based programs planned.

In 2016, ADB approved $11.8 million in grant financing for the Outer Island Maritime Infrastructure Project, which will improve the safety, efficiency, and sustainability of maritime transport between the capital, Funafuti, and the outer islands. The financing includes $3 million mobilized from the Disaster Response Facility, following Tropical Cyclone Pam in March 2015, and $500,000 from the Global Environment Facility.

In December 2017, ADB Board approved the Pacific Disaster Resilience Program, which includes Tuvalu, as well as Samoa and Tonga, providing a predictable source of post-disaster financing. Tuvalu set aside $1 million in country ADF grant and leveraged additional $2 million from the ADF (grant) regional pool, totaling $3 million. This will give Tuvalu access to immediate financing for disaster recovery and reconstruction activities.

As well as providing grants for reform programs, ADB has funded technical assistance to support public financial management, governance, education, and capacity development in Tuvalu. The country has also benefitted from regional technical assistance in economic management, audit capacity, aviation safety, private sector development, infrastructure planning, climate change, and country safeguards.

C. Future Directions

ADB’s Pacific Approach 2016–2020 serves as the country partnership strategy for the 11 small Pacific island countries, including Tuvalu. The country operations business plan 2018–2020 also takes a multi-country approach and supports the three-pronged strategy of the Pacific Approach: reducing costs, managing risks, and enabling value creation. ADB’s program of assistance to Tuvalu will focus on improving outer-island port facilities, enhancing information and communication technology, building disaster resilience, increasing electricity generation from renewable energy sources, and sustaining good fiscal management.

From January 2017, ADB introduced a base annual allocation of $6 million for small developing member countries, and this has boosted the scope for ADB’s investment in Tuvalu.

ADB is seen as a strategic partner to Tuvalu in supporting the development of pipeline projects to access grant financing from the Green Climate Fund. Regional approaches to information and communication technology, energy efficiency, renewable energy, climate change, and economic infrastructure will also be explored.

RELATIONS WITH PACIFIC FINANCIAL TECHNICAL ASSISTANCE CENTRE (PFTAC)

(As of April 2018)

PFTAC has provided moderate levels of technical assistance (TA) to Tuvalu in recent years commensurate with national priorities and absorptive capacities of very small administrative agencies. In FY2018, Tuvalu was only a modest recipient of PFTAC resources, with four missions delivered in country comprising 41 days in the field plus an additional 20 days of remote support from PFTAC. Two statistics missions were delivered in Government Finance Statistics and External Sector Statistics, plus short missions focused on financial sector supervision and macroeconomic programming. While no fiscal missions visited Tuvalu, significant remote assistance was provided to update the PFM roadmap.

PFTAC's TA strategy is guided by the APD regional strategy note and is planned within the results framework for the current PFTAC funding cycle. As such, a relatively large increase in support is planned in FY2019 with more than twice as much TA as FY2018 that will elevate Tuvalu to the sixth largest recipient of PFTAC TA. In-country missions are planned in all PFTAC programs, including the fiscal areas of revenue administration and PFM.

Public Financial Management. PFTAC provided support in 2017 to revise the PFM roadmap so that there was a focus on consolidating the gains that had been made since 2012. In 2014, PFTAC provided TA to rewrite Tuvalu's Financial Instructions, and worked with Ministry of Finance officials in 2015 to conduct a PEFA Self-Assessment as a prelude to the revision of the PFM roadmap. Officials from Tuvalu have regularly attended PFTAC's PFM workshops including the most recently delivered (with PFTAC's Macro-Fiscal Advisor) on forecasting and managing fishing revenues. PFTAC anticipates continuing collaboration with the Australian funded Budget Advisor to assist Tuvalu staff in their development of medium-term budget planning and forecasting, with a focus on infrastructure development budgeting.

Fiscal revenue. The Pacific Technical Assistance Mechanism (PACTAM) recently ceased its support to Tuvalu's Inland Revenue Department (IRD). Although this assistance contributed to increasing efficiencies, more needs to be done to further modernize the organization. A key challenge currently facing IRD is the inoperability of the IT system which is negatively impacting the management of core tax functions. This issue is currently being considered by PFTAC in conjunction with the Pacific Island Tax Administrators Association to develop a regional IT support model to assist small island countries that are experiencing similar problems. The authorities have requested a PFTAC review that will be provided in FY2019 and an assessment of current revenue administration performance to help identify future reform priorities.

Statistics. PFTAC resumed the provision of regular assistance on national accounts compilation, taking over from the SPC which has been doing this since 2010. PFTAC carried out national accounts TA missions in February 2015 and January 2016 to help incorporate major administrative and survey data sources, improve methods and build capacity. Capacity losses necessitated missions in March

2017 and April 2018 to provide supplementation to produce latest draft GDP estimates, though with secondary work to enhance data and methods, including rebasing preparations.

Balance of payments (BOP) and government finance statistics (GFS). Support on BOP and GFS was covered by the Japan Administered Account (JSA 1) for Selected IMF Activities, which formally concluded in October 2015. However, a PFTAC-funded mission is scheduled for FY2019 to build on HQ-funded TA provided in April 2018. PFTAC conducted a GFS mission during March 2018 and compiled a GFS time series, 2012-2016, for budgetary central government (BCG) based on the guidelines provided through the *Government Finance Statistics Manual (GFSM) 2014*. Updates were made to the national chart of accounts in line with the *GFSM 2014* which will facilitate the continued compilation of GFS for the BCG. Expanding coverage to the rest of the general government was also addressed. As a small National Statistics Office, the Central Statistics Division is challenged with high work volumes, increasing staff turnover and no specific statistician assigned to a specialized area of work.

Macroeconomic analysis and forecasting. PFTAC provided its first bilateral TA in macroeconomic analysis and forecasting in September 2017. Tuvalu has a relatively strong medium-term fiscal framework (MTFF) and quality fiscal data compared to regional peers. PFTAC is assisting staff at the Ministry of Finance (MoF) to develop GDP forecasting methodology and enhance cash and revenue forecasting. Next steps are to incorporate the new GFS data into the Tuvalu medium-term fiscal framework (MTFF) and compile historical fishing data to improve forecasting and management of fishing revenues.

Financial Sector Supervision work in Tuvalu has focused on the establishment of a supervision development project. In late 2017, PFTAC confirmed with the Minister of Finance and his team to proceed with a supervision project recommended in a PFTAC TA report from November 2016. It comprises a supervision strategy and technical assistance plan to develop a supervision framework undertaken at three coordinated levels:

- Supervision Expert – engaged by the MoF under the Banking Commission Act, to undertake direct off-site and on-site supervision of the National Bank of Tuvalu (NBT) and the Development Bank of Tuvalu (DBT) and to develop MFED supervisory capacity;
- PFTAC – assist in developing supervisory infrastructure and training of MoF staff in all aspects of prudential supervision; and assist the Supervision Expert and the MoF with enhancing off-site and on-site supervision practices;
- MFED – Ministry staff assigned to develop supervisory skills and experience, through working with the Supervision Expert on the direct off-site and on-site supervision of the NBT and the DBT (Supervision Team), undertaking training provided by PFTAC and the Supervision Expert, and working with PFTAC on developing the supervisory infrastructure.

The project has commenced with the MoF advertising for the position of Supervision Expert in March 2018, and initial work by the Supervision Expert and PFTAC on the on-site examination of the two banks in Tuvalu is scheduled to commence in mid-2018.

STATISTICAL ISSUES

(As of April 10, 2018)

I. Assessment of Data Adequacy for Surveillance	
General: Data provided to the Fund have serious shortcomings that significantly hamper surveillance. Shortcomings are the most serious in the national accounts and monetary statistics. PFTAC and STA have provided TA to the Central Statistics Division (CSD) of the Ministry of Finance (MoF) to help compile statistics for surveillance and the authorities' own policy analysis and formulation. The CSD will need to train additional staff to improve data provisioning.	
National accounts: With PFTAC assistance, the compilation methodology for the national accounts has been gradually improving but capacity weakness hinders timely dissemination. Attention needs to be paid to improving source data to reduce the reliance on fixed ratios and other assumptions over long periods of time. Work is under way to rebase GDP from 2005 to a more recent year which could be 2011.	
Price statistics: The CPI is the only price index compiled in Tuvalu. The CSD produces a quarterly CPI, which of reasonable quality, but with long lags and very poor dissemination. The CPI expenditure weights were revised in 2011, based on the 2010 Household Income and Expenditure Survey. Ideally, weights should be adjusted every five years to ensure that the index remains representative of current expenditure patterns but the next HIES is not scheduled until 2021.	
Government finance statistics (GFS): Tuvalu neither compiles nor publishes GFS data. However, the MoF issue monthly fiscal statements (of central government data) for budget analysis and control, and apply IPSAS (cash) and IFRS (accrual) accounting standards for public sector entities. The classification of current, capital and special development expenditures need to be improved to be in line with international standards. A GFS TA mission in March 2018 assisted in the review and update of bridge tables for economic classification and the Classification of the Functions of Government (COFOG) for budgetary central government. Automation of the GFS within the financial accounting system is feasible but would require external expertise and support from Australia. Specific focus and attention should be given to fill existing gaps in debt and aid data sources, particularly the operation of the Tuvalu Development Fund. Staff resource levels remain an impediment to efficient and effective GFS data compilation. With continued PFTAC support and supplementation, the CSD may compile and disseminate annual GFS for the upcoming GFS yearbook and quarterly GFS in the near term.	
Monetary and financial statistics: Tuvalu uses the Australian dollar as its legal tender and does not have a central bank. Monetary and financial statistics are currently not produced in Tuvalu. The National Bank and the Development Bank provided the Article IV mission with their balance sheets, which were used to produce the monetary data on the two banks. **Financial sector surveillance:** Financial Soundness Indicators (FSIs): Tuvalu does not compile FSIs.	
Balance of payments (BOP) and International Investment Position (IIP): During 2014-15, Tuvalu's CSD received three TA missions to improve the external sector statistics (ESS) under the JSA Project on the Improvement of ESS in the Asia and Pacific Region. A number of positive outcomes were achieved, including the re-establishment of the international transactions reporting system by the National Bank, improvements in the coverage of external transactions and positions, and reporting of BOP and IIP data to STA for the first-time. However, these improvements could not be sustained due to limited resources and capacity, resulting in long delays in compiling BOP data so that the most current data reported to STA are for 2012. Currently, the CSD only compiles data on trade in goods. A TA mission was held in April 2018 and another mission is scheduled for FY2019 to assist the lone CSD compiler in improving the compilation system and streamline the dissemination of BOP statistics.	
II. Data Standards and Quality	
Tuvalu began participating in the General Data Dissemination System (GDDS) in 2013 and joined the enhanced GDDS (e-GDDS) as of May 2015.	No data ROSC are available.
III. Reporting to STA	
Annual balance of payments and IIP statements, both in BPM6 format, were submitted to STA in May 2014 for the first time.	

Tuvalu: Table of Common Indicators Required for Surveillance
(As of April 19, 2018)

	Date of Latest Observation	Date Received	Frequency of Data[8]	Frequency of Reporting[8]	Frequency of Publication[8]
Exchange rates[1]	03/2018	04/2018	D	NA	NA
International reserve assets and reserve liabilities of the monetary authorities[2]	12/2017	04/2018	M	I	NA
Reserve/base money[3]	NA	NA	NA	NA	NA
Broad money[3]	NA	NA	NA	NA	NA
Central bank balance sheet[3]	NA	NA	NA	NA	NA
Consolidated balance sheet of the banking system	12/2017	04/2018	M	I	NA
Interest rates	12/2017	04/2018	M	I	NA
Consumer price index	12/2017	04/2018	Q	Q	NA
Revenue, expenditure, balance and composition of financing[4]—general government[5]	NA	NA	NA	NA	NA
Revenue, expenditure, balance and composition of financing[4]—central government	12/2017	04/2018	M	M	M
Stocks of central government and central government-guaranteed debt[6]	12/2017	04/2018	A	A	NA
External current account balance	12/2016	04/2018	A	A	A
Exports and imports of goods and services	12/2016	04/2018	A	A	A
GDP/GNP	12/2015	06/2017	A	A	NA
Gross external debt	12/2017	04/2018	A	A	NA
International investment position[7]	12/2016	04/2018	A	A	A

[1]Tuvalu uses the Australian dollar as its legal tender.
[2] Any reserve assets that are pledged or otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.
[3]Tuvalu does not have a monetary authority. Foreign assets of National Bank of Tuvalu and the Consolidated Investment Fund constitute the official reserves of Tuvalu.
[4] Foreign, domestic bank, and domestic nonbank financing.
[5]The general government consists of the central government (budgetary funds, extra budgetary funds, and social security fur and state and local governments. Data on local government operations (kaupules) are not compiled but constitute a very sr portion of general government operations. For analytical purposes, central government data are a close proxy to gen government operations.
[6] Including currency and maturity composition.
[7] Includes external gross financial asset and liability positions vis-à-vis nonresidents.
[8]Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).

Statement by Grant Johnston, Alternative Executive Director for Tuvalu and Michael Kikiolo, Advisor to Executive Director
June 22, 2018

Our Tuvaluan authorities wish to express their appreciation to the IMF team for the candid and constructive discussions they had during the Article IV mission and for the policy advice they offered. Tuvalu has the smallest economy of any member country and a population of only 11,000. Its atolls have a total area of 26 square kilometers and there is limited arable land available for agricultural purposes. The average height of the islands is only 2 meters above sea level. The remoteness of the country, its limited business opportunities and narrow production base, and its vulnerability to natural disasters give rise to development challenges. Economic activities are necessarily dominated by the public sector, including state owned enterprises, and tourism is small and underdeveloped. Despite these challenges, the authorities are committed to pushing forward a strong development agenda, and enhancing economic resilience with continued assistance from the international community.

The authorities agree with the outlook and risks presented in the staff report. The Tuvaluan economy is expected to pick up in the near term on the back of large capital projects undertaken by the government with assistance from development partners. Inflation is expected to moderate from higher levels in 2017 to 4 percent in 2018, due mainly to falling international food prices. Most of the risks, however, are on the downside. Tuvalu regularly experiences natural disasters and is dependent on foreign aid. Tuvaluan households also consume many imported items and the country is susceptible to international food and oil price shocks. Fishing revenues – which make up around half the revenue in the budget – are volatile, giving rise to uncertainties in fiscal planning.

The authorities remain committed to sound fiscal management, alongside necessary investments in development and social programs. There is no central bank in Tuvalu and macroeconomic management depends on fiscal policy. Tuvalu has maintained fiscal surpluses over recent years, except in 2017 when there were large one-off capital expenditures associated with the construction of facilities to host Pacific leaders' meetings. Expanding the revenue base is an ongoing priority. The Ministry of Finance and Economic Planning has started to strengthen its coordination with the Ministry of Natural Resource to improve interagency information on fisheries revenue for budget planning purposes. Given the country's narrow revenue base, the authorities are grateful to development partners for providing general budget support as well as funding for specific projects.

The authorities have aligned their expenditure priorities with Te Kakeega III – the National Strategy for Sustainable Development 2016-2020 – which is itself aligned with the UN Sustainable Development Agenda. The key priority areas in this strategy are health and education, infrastructure, transport and communication, climate change and support to islands development. The most recent budget aimed to provide greater education opportunities for Tuvaluans by increasing funding for government scholarships, early childhood education and an e-learning system for students across Tuvalu. It also provided for ten new doctors at Princess Margaret Hospital. The Tuvalu overseas medical treatment scheme, though costly, is an important service for the elderly population. However, the authorities are determined to reduce the cost of this scheme and have strengthened the screening process and explored cheaper alternative overseas arrangements. Despite expenditure commitments, the authorities are determined to build fiscal buffers, including through the country's trust funds. The authorities are aiming to increase the Tuvalu Trust Fund to A$200 million from the current level of A$175 million through allocations from the annual budget and unexpected windfall fisheries income.

Given the island nation's vulnerability, climate change adaptation and resilience measures are a key priority. The World Bank has estimated that building resilience against climate change will require Tuvalu to invest annually around 2 percent of GDP. In 2015, the government established the Tuvalu Survival Fund to respond to climate change impacts and disasters, and have made contributions to this Fund from the annual budget. The authorities also welcome the US$36 million assistance from the Green Climate Fund to finance the Tuvalu Coastal Adaptation Project over a period of seven years. To raise community awareness about climate change effects, the authorities are mainstreaming climate change as a subject in the school curriculum.

The authorities agree with staff on the need to strengthen the banking sector's supervisory framework and credit intermediation. The authorities, with the support of Pacific Financial Technical Assistance Centre (PFTAC), will develop a supervisory capacity within the Ministry of Finance and Economic Planning with the direct support of an externally-contracted supervision expert. PFTAC will also support the supervision project by providing training and institutional capacity development on supervision framework tools and processes. The Development Bank of Tuvalu is currently working on lending and policy manuals to guide its business operations, and is administering a government-backed small business guarantee scheme.

Ongoing reforms are aimed at improving public sector efficiency. The authorities have achieved some of the planned activities in the Public Financial Management Reform Roadmap Matrix 2017-2021 and will continue to attend to outstanding tasks. They will also continue to strengthen macroeconomic statistics. However, limited capacity and turnover of personnel is a major constraining factor. The authorities are pleased with the help they have received from development partners and would welcome more technical assistance to help with structural and legislative reforms and with macroeconomic data provision.