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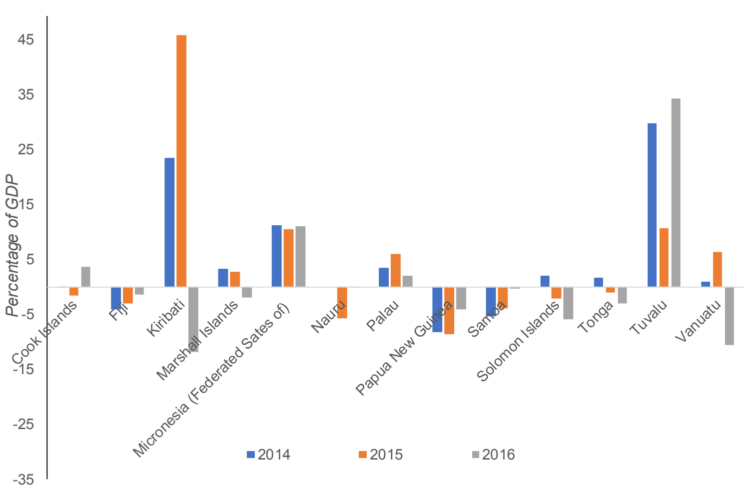
Managing fiscal volatility in the Pacific

To undertake investments with a long-term horizon, countries need not only to have sufficient fiscal resources but also to ensure that such resources are stable and predictable. Shocks such as natural disasters constrain the capacity of Governments to allocate sufficient and predictable flows of funds to implement development priorities over the medium term. Other impediments include the structural features of economies: particularly, Pacific island developing countries are generally characterized by small population size and limited land area, remote geographic location and exposure to natural hazards, such as tropical cyclones, floods and droughts. The economies of the subregion are mostly open and highly dependent on the global economy, especially through remittances and aid flows, tourism, imports of basic foods and fuel, fishing license fees, employment and investment returns on trust funds and sovereign wealth funds.

These characteristics of Pacific island developing countries make fiscal management particularly challenging, as national budgets are subject to several sources of volatility due to large fluctuations in GDP, terms of trade, tax and non-tax revenues, procyclical remittances or the negative impact of disasters. Indeed, over the past decade, most Pacific island developing countries have experienced considerable volatility in their fiscal balances. The volatility is most noticeable in Kiribati, the Federated States of Micronesia and Tuvalu, which are small States highly dependent on fishing license revenues.

Figure 1. Fiscal balance in Pacific economies, 2014-2016

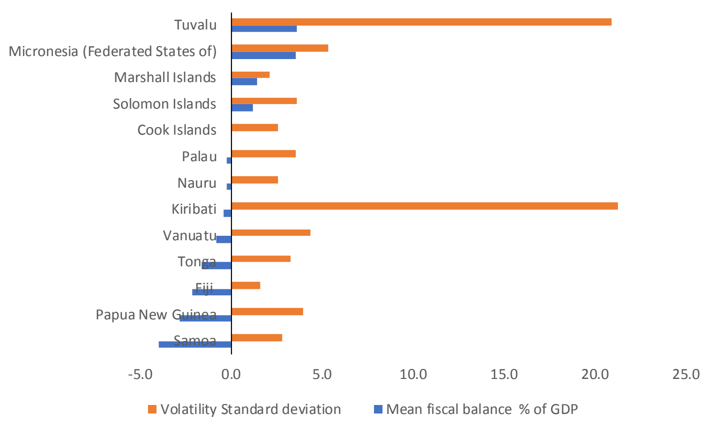


Source: ADB Key Indicators 2017.

Keeping in view the structural features of the Pacific, a context-specific design of fiscal policies, along with effective risk management, can help to improve resilience to shocks, improve economic growth potential and facilitate the implementation of sustainable development priorities. Strengthening fiscal frameworks and building buffers, with revenue volatility smoothed as a precondition, can help manage risks to fiscal sustainability in Pacific island developing economies.

A country may experience considerable fiscal volatility despite having a reasonably stable and small fiscal deficit of, say, 3 per cent for several years in a row.[1] Figure 2 illustrates the extent of the volatility in the fiscal balances between 2014 and 2016. The highest levels of volatility can be seen in Kiribati and Tuvalu where the standard deviations in the level of their fiscal balances were 21.3 (mean fiscal balance of −0.4 per cent of GDP) and 20.9 (mean fiscal balance of 3.6 per cent of GDP) respectively. Micronesia, Papua New Guinea and Vanuatu had the next highest levels of fiscal volatility, with standard deviations of 5.3 (mean fiscal balance of 3.6 per cent of GDP), 4.0 (mean fiscal balance of −2.8 per cent of GDP) and 4.3 (mean fiscal balance of −0.8 per cent of GDP) respectively.

Figure 2. Fiscal balance and volatility of Pacific island economies, 2014-2016



Source: ADB Key Indicators 2017.

Root causes of fiscal volatility

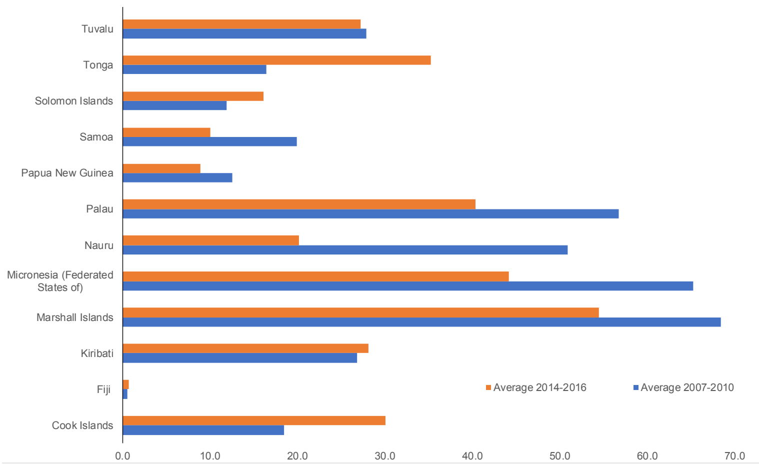
A few reasons, specific to the Pacific, explain the high fiscal volatility in Pacific island developing economies. On the expenditure side, geographic isolation and dispersed populations mean that government expenditure per capita, especially recurrent costs and spending to supply essential services, is quite high relative to GDP. For example, in Kiribati and Tuvalu the level of government expenditure averaged about 100 per cent of total GDP between 2007 and 2016. Although the amount was less in Marshall Islands, the Federated States of Micronesia, Nauru, Palau and Solomon Islands, government expenditure averaged between 40 and 80 per cent of GDP during the same period.[2] Such high current spending levels occur because the public sector is typically the main employer[3] and the main provider of goods and services. This implies very limited budget allocations for public investments, which are often pursued through foreign grants and loans.

The long-run impact of natural disasters on fiscal position and economic development is also substantial. It has been estimated that damage and losses due to natural disasters reduced the average GDP growth rate in Pacific island developing countries by 0.7 percentage points per year during the period 1980-2014.[4] From a related estimate in the same study, it was suggested that, for damage and losses equivalent to 1 per cent of GDP, the fiscal balance would deteriorate by 0.5 per cent of GDP in the year after a disaster, as spending on reconstruction rises while tax revenue falls. Another study found that among Pacific island developing countries, a natural disaster that affects 1 per cent of the population causes a contraction in tax revenue of 0.2 percentage points of GDP in the year of the disaster, followed by a revenue rebound in the following year.[5] The rebound generally stems from development assistance flows aimed at supporting recovery and reconstruction activities. Owing to a narrower economic base and vulnerability to exogenous shocks, including from natural disasters and terms-of-trade shocks, revenue volatility in small States is larger than in developing non-small States.[6]

An emerging source of revenue is the windfall fishing revenues in recent years for six of the eight Parties to the Nauru Agreement.[7] For Kiribati, Marshall Islands, the Federated States of Micronesia, Nauru, Palau and Tuvalu, estimates show a twofold increase in average fishing license revenues across these economies between 2012 and 2015. Collections climbed from the equivalent of 7.1 per cent of GDP in the period 2008-2011 to 17.7 per cent in the period 2012-2015.[8] In the case of smaller States in the Pacific subregion, fishing license fees provide lumpy non-tax revenues (about 38 per cent of current government revenues on average – for Kiribati 90 per cent of current government revenue), a situation which further increases revenue volatility. Fishing license fees are intrinsically volatile[9] because ultimately, they are determined by the amount of fish caught, which is uncertain in itself.[10]

Fiscal positions in Pacific island developing countries are also vulnerable to large inflows of foreign aid and grants that typically follow natural disasters. However, high dependence on foreign aid is a source of fiscal volatility, given the unpredictability of the flows and direction of spending. Over the 10 years from 2007 through 2016, aid accounted for an average 29.4 per cent of total revenues,[11] including grants. There were wide variations both between countries and between the average grants in the first three years (2007-2010) and the final three years (2014-2016) of the 10-year period (figure 3). Cook Islands, Tonga and Vanuatu reported higher proportions of grants in their total revenues during the final three years of that 10-year period.

Figure 3. Grants as percentage of total revenue in Pacific economies



Source: ADB Key Indicators 2017.

Volatile revenue flows, including from aid and natural resource rents, combined with rigid recurrent expenditure commitments and the impossibility to benefit from economies of scale in the provision of public services contribute to underpin fiscal volatility. As a result, predictability of funding and the capacity to fund national development plans, including basic services and infrastructure, are compromised. This makes it difficult for Pacific island developing countries to engage in sustainable development projects in the medium-to-long run.

Policies to manage implications of fiscal volatility

In view of the specific characteristics of Pacific island developing economies and the varied country-specific implications of fiscal volatility, tailored policy measures are required. These measures should be supported by a multipronged approach towards enhancing fiscal resilience. Ongoing efforts in applying fiscal policy tools, together with risk management approaches on both the revenue and expenditure side, and broader structural reforms are all important for managing fiscal volatility. Pacific island developing countries have adopted several measures to smooth out revenues over time, including transferring windfall revenue to public trust and sovereign wealth funds, and participating in a subregional risk-pooling insurance scheme.

These initiatives and a selected few policy principles and options, noting the stage of implementation of reforms in Pacific island developing countries, are highlighted below.

Strengthen public financial management and build buffers and fiscal frameworks. Further strengthening national fiscal frameworks is necessary to minimize fiscal risks from both volatile revenue and high and recurrent expenditure rigidities, create fiscal space for strategic investments in support of the 2030 Agenda, build buffers to support macroeconomic stability and allow for timely countercyclical spending. While several Pacific island developing countries have made some progress in building fiscal buffers since the 2008 financial and economic crisis, most of them still have higher debt and lower fiscal balances than they did before the crisis.[12] A fiscal framework built around simple fiscal anchors, such as debt-to-GDP ratios and underlying fiscal balances, could help to minimize volatility by creating consensus on medium-term budget allocations to specific sectors, such as education. As a specific policy tool in this regard, the use and maintenance of a complementary medium-term expenditure framework may also help build political consensus on budgeting plans and spending priorities. In the subregion, Fiji has had such a framework in place for several years.

Improve domestic revenue flows. Higher flows of domestic revenues can support the build-up of fiscal buffers and mitigate the impact of unpredictable external inflows, such as revenue windfalls, development aid or multilateral finance. To build the domestic tax base, introducing tax measures on natural resources, such as fisheries and minerals, and tourism-related activities could yield a higher revenue base for Pacific island developing countries. The imposition of various levies and taxes on tourism activity in Fiji and Palau, and application of duties on prescribed volumes of mineral water extracted in Fiji provide some other examples.

Continue to broaden the economic base. Broadening the economic base can create more sources of domestic revenues. More effort is required to implement reforms to create an enabling environment for private sector development and strengthen areas of comparative advantage in the Pacific, such as agriculture and tourism. Tapping further into global employment opportunities in the security industry, sports, caregiving, seafaring and various seasonal work schemes can contribute to higher remittances and improved tax returns.[13]

Sovereign wealth fund or national trust fund. Most Pacific island developing countries[14] with budget surpluses arising from resource rents and royalties have sovereign wealth and national trust funds. These provide a means to build fiscal buffers that may be used to smooth windfall revenue flows into the annual budgets and to ensure sustainability over the longer term. Sovereign funds can be drawn down when required, subject to the established fund rules. Recent sharp increases in fisheries license revenues have enabled recipient countries to increase savings in public trust funds, including the Tuvalu Trust Fund.[15]

Consider specific measures to tackle the risk of natural disasters. Several ex ante and ex post options are available and have been implemented by Pacific island developing countries.[16] A structured risk management approach should be tailored to every country's specific circumstances, as it should balance the long-term value of disaster risk reduction measures, such as building more resilient infrastructure or investing in community-level preparedness, versus financial preparedness measures, such as purchasing insurance.[17] Specific measures adopted recently are discussed next.

Emergency funds and contingency budgets set aside by Governments annually can provide a resource that can be called on immediately to support disaster response. For example, Tonga has established a statutory emergency fund that can be accumulated from year to year. While such funds can support early recovery, further replenishment is likely required to respond to the occurrence of major damage and loss. In terms of cost effectiveness and quick access to funds for frequent disaster events causing relatively low levels of damage and loss, the use of both national emergency and contingency funds is applicable. In comparison, trust and sovereign wealth fund arrangements are more efficient for less frequent but higher-cost events.

Empirical evidence shows that the effectiveness of funds in the Pacific to protect budgets from high revenue volatility and strengthen fiscal prospects was hampered by lack of integration with budgets, institutional weaknesses and inadequate controls.[18] However, it is also recognized that if funds are well designed, they could be used as a tool to support a sound fiscal framework, but should not be seen as a substitute for fiscal reforms.[19]

Insurance against natural disaster risk has been implemented for several years, and the results seem quite positive. Notably, a risk-sharing mechanism called the Pacific Catastrophe Risk Insurance Company, provides limited insurance cover for five Pacific island economies, namely Cook Islands, Marshall Islands, Samoa, Tonga and Vanuatu.[20] This insurance programme provides an immediate payout on the occurrence of an insured disaster event that meets specified parametric triggers. This provides participating economies with access to liquidity immediately after a natural disaster in a cost-efficient way as the risk is pooled across several countries.

Donor participation should supplement annual contingency budgets and emergency funds. For example, an innovative contingent financing product worth $25 million recently provided to Cook Islands, Samoa, Tonga and Tuvalu by the Asian Development Bank will provide a source of near-immediate financing for early recovery activities from disaster events.[21] However, a valuable use of aid would be to contribute to the funding of countries' insurance premiums against natural disasters. This would help reduce fiscal volatility and enhance preparedness against natural disasters.

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[1] Volatility is measured by the standard deviation of each country's fiscal balance from its mean over the period 2007-2016. The higher is the standard deviation, the greater is the level of volatility and the flatter the distribution of the series values.
[2] For details, see Asian Developmment Bank (ADB), *Key Indicators for Asia and the Pacific 2017* (Mandaluyong City, Philippines, 2017). Available from https://www.adb.org/publications/key-indicators-asia-and-pacific-2017.
[3] Private sector size in most Pacific island developing countries is generally small due to a combination of factors, including supply side and infrastructure constraints, limited scale of domestic demand and high costs for transportation and doing business.
[4] Ezequiel Cabezon and others, *Strengthening fiscal frameworks and improving the spending mix in small States*. IMF Working Paper, No. WP/15/124. (Washington, D.C.: International Monetary Fund, 2015). Available from www.imf.org/external/pubs/ft/wp/2015/wp15124.pdf.
[5] Ibid.
[6] Ibid.
[7] The Nauru Agreement Concerning Cooperation in the Management of Fisheries of Common Interest is a subregional agreement between the Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands and Tuvalu. The Parties to the Agreement collectively control 25-30 per cent of the world's tuna supply.
[8] ADB, *Asian Development Outlook 2016 Update: Meeting the Low-carbon Growth Challenge* (Mandaluyong City, Philippines, 2016). Available from www.adb.org/sites/default/files/publication/197141/ado2016-update.pdf.
[9] International Monetary Fund (IMF), Asia and Pacific Small States Monitor, Quarterly Bulletin, Issue No. 01/2014. Available from www.imf.org/~/media/external/np/apd/ssm/2014/0414.ashx.
[10] In 2013, the fee earnings ranged from 15 per cent of total revenues in the Marshall Islands to 65 per cent in Kiribati (see endnote 9). Despite the wealth derived from fisheries, Pacific island countries have of marine resources, which might induce a depletion of fish stocks and undermine fiscal sustainability (see endnote 9).
[11] Traditional development partners in the Pacific include multilateral development banks and agencies, and bilateral partners, such as Australia, China, Japan, New Zealand and the European Union.
[12] see endnote 4.
[13] Several Pacific islands developing countries (particularly Fiji, Kiribati, Samoa, Tonga and Vanuatu) have benefited from overseas employment opportunities in recent years.
[14] The list of sovereign wealth funds from the Pacific include the following: Kiribati Revenue Equalization Reserve Fund; Marshall Islands Compact Trust Fund; Micronesia Compact Trust Fund; Nauru Phosphate Royalties Trust Fund; Palau Compact Trust Fund; Papua New Guinea Mineral Resources Stabilization Fund; Tonga Trust Fund; and Tuvalu Trust Fund. For further details, see (see endnote 18).
[15] ADB, *Asian Development Outlook 2016 Update: Meeting the Low-carbon Growth Challenge* (Mandaluyong City, Philippines, 2016). Available from www.adb.org/sites/default/files/publication/197141/ado2016-update.pdf.
[16] United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP), Coping with natural disasters in the Pacific, MPFD Policy Briefs, No. 35. April, 2016. Available from www.unescap.org/sites/default/files/MPFD%20Policy%20Brief-Pacific-Natural-disasters.pdf.
[17] See e.g. ESCAP, *Asia-Pacific Disaster Report 2017: Leave No One Behind, Disaster Resilience for Sustainable Development*. Sales No. E.17.II.F.16 (Bangkok, 2017). Available from www.unescap.org/sites/default/files/publications/0_Disaster%20Report%202017%20High%20res.pdf.
[18] Eric Le Borgne and Paulo Medas, Sovereign wealth funds in the Pacific island countries: macro-fiscal linkages, IMF Working Paper, No. WP/07/297 (Washington, D.C.: International Monetary Fund, 2007). Available from www.imf.org/external/pubs/ft/wp/2007/wp07297.pdf.
[19] Ibid.
[20] For more information, see Pacific Islands Forum Secretariat, Disaster Risk Financing Instruments. A discussion paper for the 2017 Forum Economic Ministers' Meeting prepared jointly by the Asian Development Bank and the World Bank Group. Available from www.forumsec.org/resources/uploads/attachments/documents/PCRAFI_&_Contingent_Credit.pdf. Also see www.worldbank.org/en/news/press-release/2016/11/02/new-insurance-facility-to-boost-natural-disaster-resilience-in-pacific-island-countries, http://pcrafi.spc.int/about/, and https://www.radionz.co.nz/international/pacific-news/344787/us45-million-for-pacific-catastrophe-insurance.
[21] https://www.adb.org/news/adb-help-strengthen-samoa-tonga-and-tuvalu-resilience-disasters and https://www.adb.org/news/adb-loan-improve-cook-islands-disaster.