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Are the Asia and Pacific Small States Different from Other Small States?

Patrizia Tumbarello, Ezequiel Cabezon, and Yiqun Wu

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Asia and Pacific Department

Are the Asia and Pacific Small States Different from the Other Small States?

Prepared by Patrizia Tumbarello, Ezequiel Cabezon, and Yiqun Wu[1]

Authorized for distribution by Hoe Ee Khor

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Abstract

The small states of the Asia and Pacific region face unique challenges in raising their growth potential and living standards relative to other small states due to their small populations, geographical isolation and dispersion, narrow export and production bases, exposure to shocks, and heavy reliance on aid. Higher fixed government costs, low access to credit by the private sector, and capacity constraints are also key challenges. The econometric analysis confirms that the Pacific Island Countries (PICs) have underperformed relative to their peers over the last 20 years. Although these countries often face more limited policy tools, policies do matter and can further help build resilience and raise potential growth, as evidenced in the recent business cycle. The Asia and Pacific small states should continue rebuilding buffers and improve the composition of public spending in order to foster inclusive growth. Regional solutions should also continue to be pursued.

JEL Classification Numbers: F15, F41, F42, F43, F47

Keywords: Asia and Pacific; small states; micro states, Pacific islands, growth, volatility

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I. INTRODUCTION

The small states of the Asia and Pacific region face unique challenges in raising their growth potential and living standards. These countries are particularly vulnerable because of their small populations, geographical isolation and dispersion, narrow export and production bases, lack of economies of scale, limited access to international capital markets, exposure to shocks (including climate change), and heavy reliance on aid. In providing public services, they face higher fixed government costs relative to other states because public services must be provided regardless of their small population size. Low access to credit by the private sector is an impediment to inclusive growth. Capacity constraints are another key challenge. These challenges seem to be particularly acute in micro states (states with a population of less than 200,000 people). The small states of the Asia and Pacific region face higher volatility than other small states in several respects, specifically, per capita GDP growth, changes in the terms of trade, aid, current account balance, and revenue.

The econometric analysis confirms that the Pacific Island Countries (PICs) have underperformed relative to their peers over the last 20 years. After controlling for some standard variables that explain per capita GDP growth, PICs suffer a disadvantage in per capita GDP growth of about 2 percentage points, compared with an average small state.

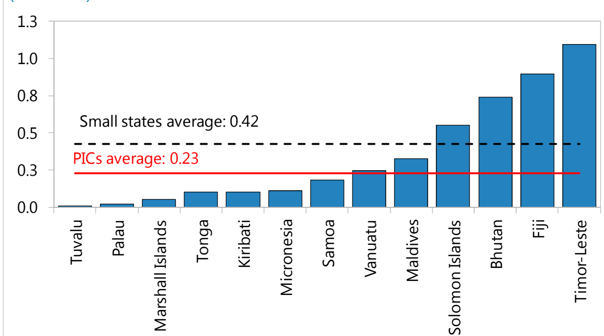
The small states also face more limited policy tools. Five out of 13 countries do not have a central bank and the scope for diversifying their economies is narrow. Given their large development needs, fiscal policies have been, at times, pro-cyclical. Within the Asia-Pacific small states group, the micro states are subject to more vulnerability and macroeconomic volatility than the rest of the Asia-Pacific small states.

But policies do matter and they can further help build resilience and raise potential growth. Despite all these challenges, these countries have done slightly better than some comparators during the recent business cycle, thanks to sound policies and strong linkages with resilient economies in the region, and some small states in the region have made progress in building policy buffers. But growth rates have remained quite low. Going forward, given their high vulnerability to external shocks, these countries should continue rebuilding buffers and improve the composition of public spending with regard to education, health, and infrastructure in order to foster inclusive growth. The Asia and Pacific small states have enormous untapped marine resources and further effort is needed to properly exploit and manage them. Regional solutions should also continue to be pursued, mainly in fisheries, information technology, and aviation safety. Further integration with the Asia and Pacific region should help raise growth potential.

II. Characteristics of Small States in the Asia and Pacific Region

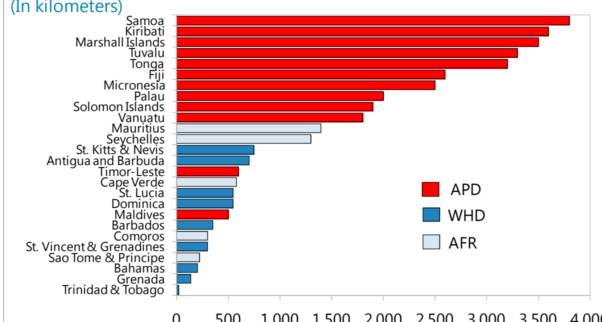
The small states of the Asia and Pacific region face unique challenges in raising their growth potential and living standards. These challenges distinguish them from the broader group of small states across other regions. Even among them, heterogeneity is high, with the micro[2] states subject to more vulnerability and macroeconomic volatility than the rest of the Asia-Pacific small states.

Figure 1. Small States—Asia and Pacific Region: Population, 2011
(In millions)



Sources: IMF, WEO; and World Bank, WDI.

Figure 2. Small States—Asia and Pacific Region: Distance to the Closest Continent
(In kilometers)



Sources: South Pacific Applied Geoscience Commission, the United Nations Environment Program; and IMF staff calculations.

The small states of the Asia and Pacific region are remote, widely dispersed, and scarcely populated (Figure 1). They are geographically distant from their major markets and trading partners—unlike small islands in other regions. Remoteness raises transport costs and keeps these economies relatively isolated. Their large dispersion poses another challenge (Table 1). Most Pacific Island Countries (PICs) consist of hundreds of islands scattered over an area in the Pacific Ocean that occupies 15 percent of the globe's surface. Their small size and dispersion preclude the exploitation of geographical agglomeration effects. Two PICs are the smallest IMF members in terms of population—Tuvalu and Palau. PICs' average population is half the average population of other small states outside the Pacific region. The Pacific Islands are by far the most remote countries in the world, according to different indicators: the United Nation's liner shipping connectivity index—which measures countries' connectedness to global shipping networks—based on the status of their maritime transport sector, and two different measures of distance (Figures 2-4).

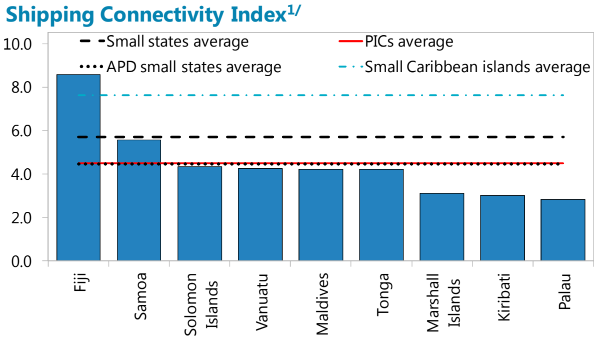
[2] This paper covers the Asia and Pacific developing (APD) small states. The group includes: Bhutan, Fiji, Kiribati, Maldives, Marshall Islands, Micronesia, Palau, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu. With the exception of Bhutan, Maldives, and Timor-Leste, they are all Pacific Island countries. The micro states (i.e., countries with 2011 populations below 200,000) include: Kiribati, Marshall Islands, Micronesia, Palau, Samoa, Tonga, and Tuvalu.

Table 1. Geographical Dispersion: Average Sea Distance Between Two Inhabitants of the Same Country1/

Country	Distance (In km)
Micronesia	706
Kiribati	691
Marshall Islands	280
Solomon Islands	267
The Bahamas	96
Trinidad and Tobago	9
St. Kitts and Nevis	9
Antigua and Barbuda	2

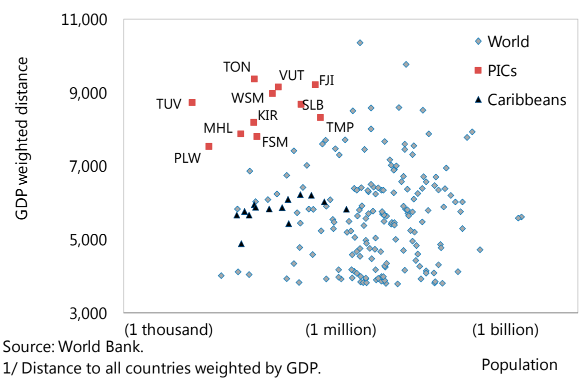
Sources: IMF staff calculations, based on country census.
1/ This is equivalent to computing the average distance between islands of the same country weighted by population.

Figure 3. Small States—Asia and Pacific Region: Liner Shipping Connectivity Index1/



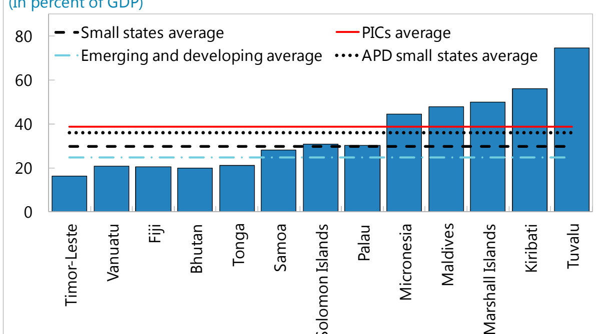
Source: World Bank, WDI 2012.
1/ A smaller number indicates lower connectivity/high transportation costs. Countries with maximum connectivity=100. Non-small states mean= 24.3.

Figure 4. Population versus GDP-Weighted Distance1/
(In kilometers)



Source: World Bank.
1/ Distance to all countries weighted by GDP.

Figure 5. Small States—Asia and Pacific Region: Current Government Expenditure, 2011
(In percent of GDP)

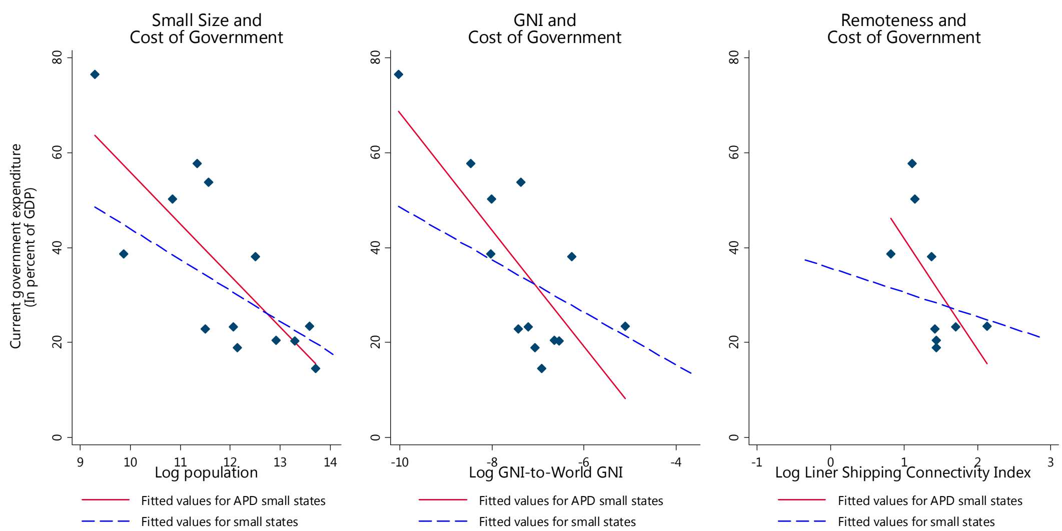


Sources: IMF, WEO; and IMF staff calculations.

In providing public services, the Asia and Pacific small states face higher fixed (i.e., per capita) government costs relative to other small states (Figures 5 and 6). This is because public services must be provided regardless of the small population. In the island states, this effect is compounded by remoteness and large dispersion and it leads to an inverse relationship between the size of the country and the government. Large dispersion and smallness increase input costs and worsen the diseconomies of scale associated with small populations in providing such public goods and services as education, justice, social services, infrastructure, and in creating public institutions. Current government spending as a share of GDP is generally higher in the micro states than in all other groups.[3]

[3] See Becker (2012), on the importance of geographic isolation as a source of vulnerability and on the higher fixed costs of government in the Pacific islands.

Figure 6. Small States—Asia and Pacific Region: Cost of Government, 1990–2010



Sources: World Bank, WDI; IMF, WEO; and IMF staff calculations.

These countries are quite heterogeneous (Appendix, Table 1) but they all have narrow export and production bases. Some rely primarily on tourism (Maldives, Fiji, Samoa, Palau, and Vanuatu), and some on fishing (Kiribati, Marshall Islands, Micronesia, and Tuvalu) (Table 2). Some are commodity or energy-resource based (Bhutan, Solomon Islands, and Timor-Leste). While scope for export diversification remains limited, with the exception of Fiji and Samoa, niche or eco-tourism is gradually developing in Kiribati, Marshall Islands, and Micronesia. Recent experiences in setting up joint ventures for marine processing are also notable as ways to move up the value-added chain.

Table 2. Small States—Asia and Pacific Region: Main Exports of Goods and Services

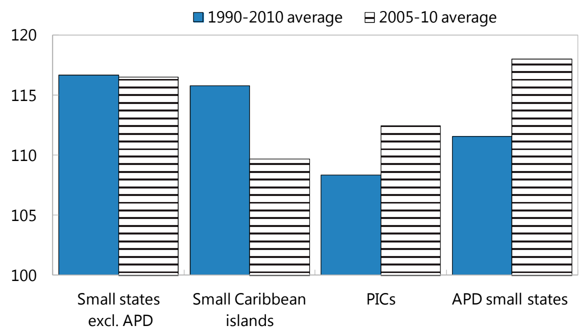
Country	First good or service	Second good or service
Bhutan	Hydroelectricity	Minerals
Maldives	Tourism	Fish
Timor-Leste	Oil	Coffee
Pacific Island Countries		
Fiji	Tourism	Sugar
Kiribati	Fish	Copra
Marshall Islands	Fish	Copra
Micronesia	Fish	Copra
Palau	Tourism	Fish
Samoa	Tourism	Copra
Solomon Islands	Logs	Gold
Tonga	Agriculture (squash)	Tourism
Tuvalu	Fish	Copra
Vanuatu	Tourism	Copra

Sources: IMF staff reports; and country authorities.

PICs appear to be less open than comparators but openness has increased recently (Figures 7 and 8). Less openness reflects their remoteness, their underdeveloped infrastructure (which hurts tourism), and low competitiveness. Poor connectivity and high transport costs have prevented greater trade integration with the rest of the region. Trade openness has increased over time and integration has benefitted the Asia and Pacific small states, but it has also posed challenges because shocks are transmitted more rapidly in a more interconnected world.

Figure 7. Small States: Trade Openness[1/]

(In percent of GDP)

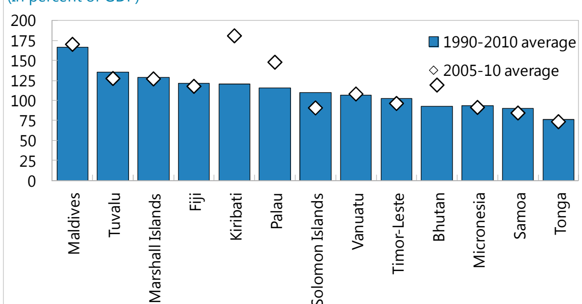


Sources: World Bank, WDI; Penn World Tables; and IMF staff calculations.

1/ Exports plus imports of goods and services.

Figure 8. Small States—Asia and Pacific Region: Trade Openness[1/]

(In percent of GDP)



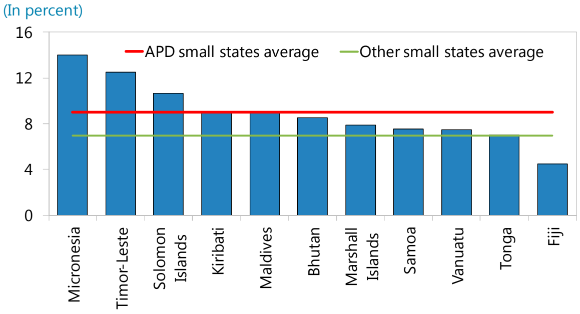
Sources: World Bank, WDI; Penn World Tables; and IMF staff calculations.

1/ Exports plus imports of goods and services.

Financial depth is generally below that of other small states (Figures 9 and 10). Access to credit is more limited than in other small states. And in the Pacific Islands, land tenure—communal land—is a constraint on credit growth and private sector development, leading to less inclusive growth. In most Pacific Islands, land is owned by the government and by large families, rather than by individuals. Family tenure makes property rights unclear and limits the ability to use land as collateral. If banks are unable to effectively secure their lending with land as collateral, lending becomes costly. The spread between lending and borrowing rates is very high in the Pacific Islands.

Figure 9. Small States—Asia and Pacific Region: Interest Rate Spread of Commercial Banks[1/]

(In percent)

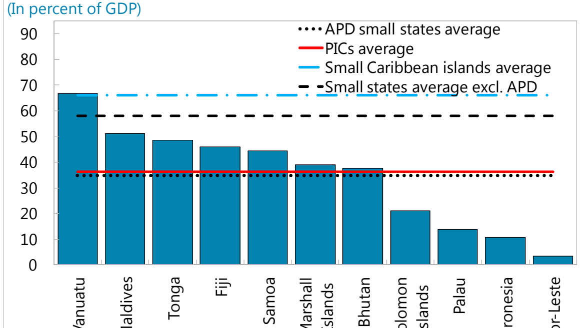


Sources: Country authorities; IMF, *International Financial Statistics*; and IMF staff estimates.

1/ 2011 or lastest available.

Figure 10. Small States—Asia and Pacific Region: Domestic Credit to Private Sector[1/]

(In percent of GDP)



Sources: World Bank, WDI; and IMF staff calculations.

1/ 2011 or latest available.

Yet, commercial banks in the Pacific Islands—mainly foreign banks—are well capitalized and highly profitable, despite the relatively low lending growth of recent

years. This reflects continued high levels of non-interest income, largely from foreign exchange activities and from fees and charges—which are higher than some comparators (Table 3).[4]

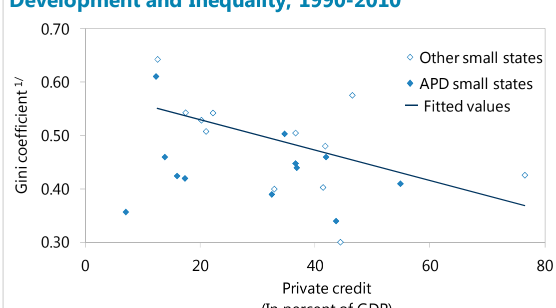
Table 3. Small Pacific Island Countries: Interest and Non-interest Income of Commercial Banks, 2011

	Net interest income (percent of total assets)	Non-interest income (percent of total assets)
Fiji	3.6	3.0
Marshall Islands	12.9	1.3
Palau	15.5	1.2
Samoa	6.0	4.0
Solomon Islands	5.2	6.2
Tonga	5.1	4.8
Vanuatu	4.0	3.2
Memorandum items:		
Australia	1.8	0.9
Antigua and Barbuda	4.6	4.3
Bahamas	5.5	0.3
Grenada	4.4	4.2
St. Kitts and Nevis	1.9	5.9
St. Lucia	3.8	4.7
St. Vincent and the Grenadines	3.9	4.7
Suriname	1.4	0.6
Cape Verde	3.7	1.1
Mauritius	2.0	1.0
Seychelles	3.1	2.9
PICs (average)	7.5	3.4
Small Caribbean states (average)	3.6	3.5
Small African states (average)	2.9	1.7

Sources: Davies and Vaught, 2011; and Central Bank data.

Low access to credit by the private sector is an impediment to inclusive growth (Figure 11). Indeed, a simple regression suggests a negative relationship between inequality (proxied by the Gini coefficient) and the share of private credit as a percent of GDP. Fostering financial inclusion by increasing the use of mobile phone networks for basic financial services is a recent positive development in the small Pacific states (i.e., Fiji, Samoa, Solomon Islands, and Tonga) to support private sector growth. The decreasing cost of sending remittances to the Pacific by Australian banks is also helping foster financial sector intermediation.

Figure 11. Small States—Asia and Pacific Region: Financial Development and Inequality, 1990-2010



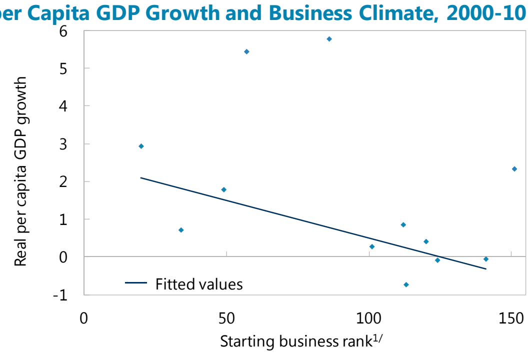
Sources: World Bank, WDI; ADB, *Key Indicators for Asia and the Pacific, 2012*; and IMF staff calculations.
1/ One indicates maximum inequality.

[4] Davies and Vaught (2011).

International market access is also very limited. Because of capacity and structural impediments, including legal and administrative frameworks, the Pacific Islands have still not been able to tap international capital markets and attract capital inflows. Their market access to private capital flows is almost nonexistent, excluding Fiji and Maldives.

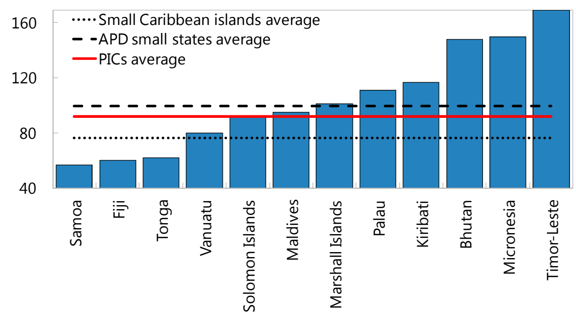
Indicators on business environment are weaker in the Asia and Pacific small states than in some comparators. According to the latest World Bank *Doing Business Report*, procedures for starting and closing a business are more expensive in the small Pacific islands than in the other Asia and Pacific small states as well as in the Caribbean island countries. Weak private sector development impedes sustainable growth (Figures 12 and 13).

Figure 12. Small States—Asia and Pacific Region: Real per Capita GDP Growth and Business Climate, 2000-10



Sources: World Bank, *Doing Business 2013*; and IMF staff calculations.
1/ A lower number indicates a more friendly business climate.

Figure 13. Small States—Asia and Pacific Region: Ease of Doing Business Index 1/



Sources: World Bank, *Doing Business 2013*; and IMF staff estimates.
1/ A lower number indicates a more friendly business climate.

Policy tools are also limited. Five out of 13 countries do not have a central bank (Kiribati, Marshall Islands, Micronesia, Palau, and Tuvalu). The Australian dollar circulates as legal tender in Kiribati and Tuvalu, and the U.S. dollar in Marshall Islands, Micronesia, and Palau. The use of dollarization or of fixed/managed exchange rate regimes for the other Asia-Pacific small states reflects the fixed costs of operating an independent monetary policy as well as weak monetary transmission mechanisms. The latter is largely the result of structural characteristics of financial markets (e.g., shallow money markets, the absence of such institutions as credit bureaus that facilitate bank lending, and small market size).[5]

Capacity constraints are another key challenge. These constraints are larger in the PICs relative to their comparators. For example, school enrollment is lower than in other small states (Figure 14). A recent analysis[6] suggests that in the small PICs capacity constraints within the public service are associated with small size and explain the underperformance on public financial management reforms. These constraints represent another impediment to raising growth potential. That said, Solomon Islands has recently taken commendable steps

[5] Yang and others (2011).

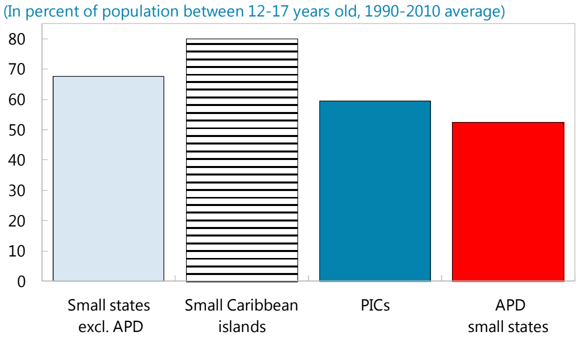
[6] Haque and others (2012).

to strengthen public finance management and promote budget transparency and accountability, as have Fiji and Vanuatu.

Human development indicators are among the lowest in the region (Figure 15). In the Asia and Pacific region, of the 12 countries with the lowest rank on the human development index, 6 are small states, and 3 are micro states.

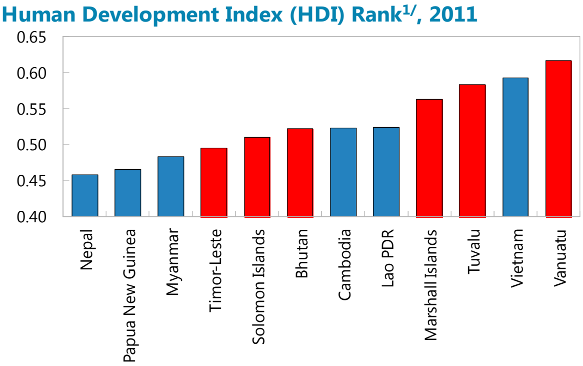
Figure 14. Small States—Asia and Pacific Region: Secondary School Enrollment

(In percent of population between 12-17 years old, 1990-2010 average)



Sources: World Bank, WDI; and IMF staff calculations.

Figure 15. Selected Asia and Pacific Countries: Lowest Human Development Index (HDI) Rank[1/], 2011



Source: UNDP, *Human Development Report*.

1/ A lower rank indicates a poor HDI.

III. Managing Shocks, Vulnerability, and Volatility

A. Shocks

Small states in the Asia and Pacific region are heavily exposed to shocks. Some shocks are related to external developments, some to weather and environmental events, and some are home grown, such as political shocks.

The main channels of spillover from a global downturn are the terms of trade, remittances, tourist flows, and the financial channels.

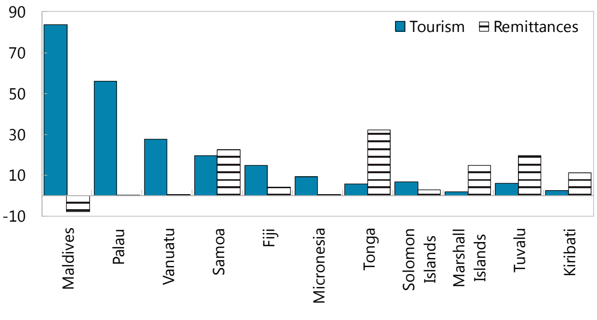
- *All PICs remain especially vulnerable to global commodity price shocks*—particularly for food and fuel, given their large share in total imports (about 50 percent). In light of the rise in commodity prices and their greater volatility in recent years, terms-of-trade shocks have translated into large output shocks.[7] Higher import prices have also raised production costs and reduced real household income.

- *External demand and financial shocks are also important.* The main channels of contagion are changes in remittances (in Samoa, Tonga, Tuvalu, and, to a lesser extent, Fiji) and tourism receipts (in Maldives, Palau, Vanuatu, Samoa, and Fiji) (Figure 16). A fall in stock prices in the advanced economies would also affect PICs with large trust

[7] See Sheridan, Tumbarello, and Wu (2012), for an assessment of the impact of external shocks from global and regional economies on the PICs.

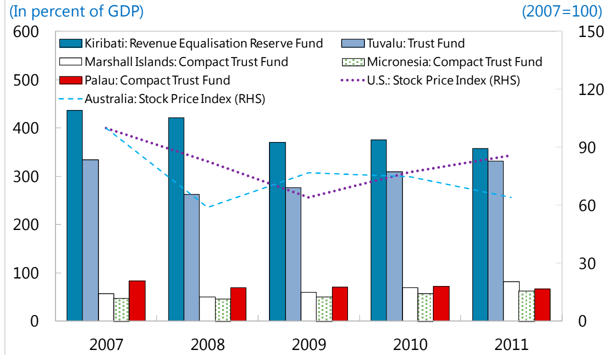
funds whose assets are invested offshore (Kiribati, Marshall Islands, Micronesia, Palau, and Tuvalu), as occurred during 2008–09 (Figure 17).

Figure 16. Small States—Asia and Pacific Region: Tourism and Remittances
(In percent of GDP, 2005-11 average)



Sources: Country authorities; and IMF staff calculations.

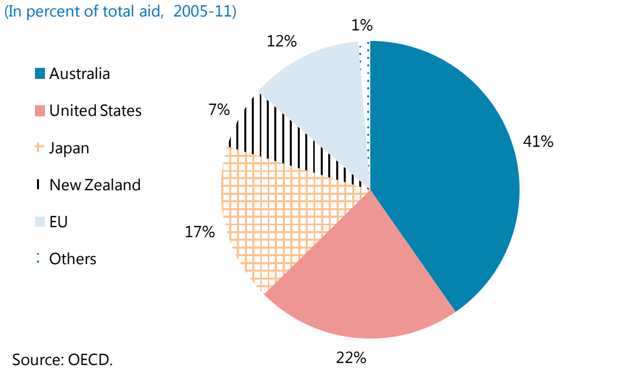
Figure 17. Micro States—Asia and Pacific Region: Sovereign Investment Fund Balances
(In percent of GDP) (2007=100)



Sources: Country authorities; and IMF staff calculations.

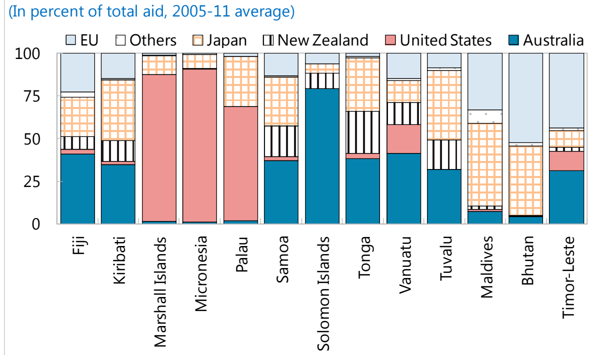
Aid flows have proven resilient, as the main donor in the region, Australia (Figure 18) weathered the global financial crisis relatively well. While aid flows from Australia and New Zealand are expected to hold up, weaker-than-expected economic activity in these countries could hit the PICs particularly hard, as both of these countries are also their main trade partners. Aid from the United States has a large impact on three Pacific Island countries (Marshall Islands, Micronesia, and Palau) that have signed the bilateral Compact of Free Association agreement with the United States (Figure 19). This aid represents over 65 percent of total aid in Palau and 90 percent of total aid in Marshall Islands and Micronesia. These PICs finance a large portion of their budgetary and balance of payments needs with "Compact grants," which are, however, scheduled to expire in the 2023/24 fiscal year.

Figure 18. Small States—Asia and Pacific Region: Official Development Aid by OECD Donors
(In percent of total aid, 2005-11)



Source: OECD.

Figure 19. Small States—Asia and Pacific Region: Official Development Assistance by Donors
(In percent of total aid, 2005-11 average)



Source: World Bank, WDI.

PICs are also severely affected by natural disasters and climate change (Figure 20). According to a 2012 World Bank Report, *Acting Today for Tomorrow*, of the 20 countries in the world with the highest average annual disaster losses measured by GDP, 8 are PICs: Vanuatu, Niue, Tonga, Micronesia, Solomon Islands, Fiji, Marshall Islands, and the Cook Islands. Several small island countries in the Asia and Pacific region are low-lying coral islands, with their population and infrastructure concentrated along the coast (Kiribati, Maldives, Marshall Islands, and Tuvalu). This makes them highly vulnerable to the effects of such climate change as sea-level rise and coastal erosion. While worldwide databases are available to account for the costs of natural disasters, the costs of climate change (including the fiscal costs), which are substantial in the Asia and Pacific small states, remain largely unestimated.

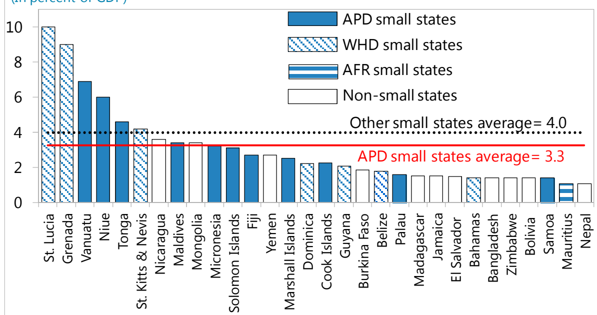
The frequency of shocks is also higher in the small Pacific Islands than in other comparators (Figure 21). Our event analysis shows that political, terms-of-trade, and natural disaster shocks are more frequent relative to other low-income small states.

B. Vulnerability

Reliance on aid and remittances to finance structural trade deficits remains a key vulnerability (Figures 22 to 24). Small domestic markets coupled in most cases with poor resource endowments result in large trade deficits. The Asia-Pacific small states rely heavily on imports; most are net importers of energy and food, given the shortage of arable land. They also import capital goods because of their dependence on imported technologies and other consumer goods.

Figure 20. Average Impact of Natural Disasters[1/]

(In percent of GDP)

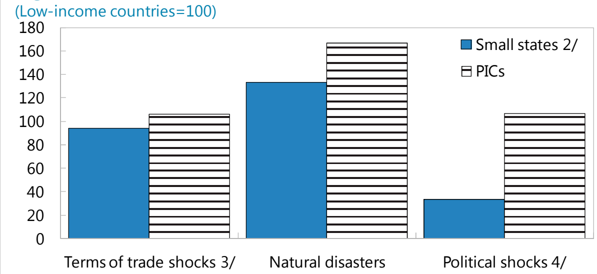


Source: World Bank and United Nations, *Natural Hazards, UnNatural Disasters: The Economics of Effective Prevention*, 2012.

1/ Excludes the cost of climate change.

Figure 21. Small States: Frequencies of Shocks[1/]

(Low-income countries=100)



Sources: UN, Natural Disaster Database; Polity IV Project; and IMF staff calculations.

1/ Based on events during 1970-2007.

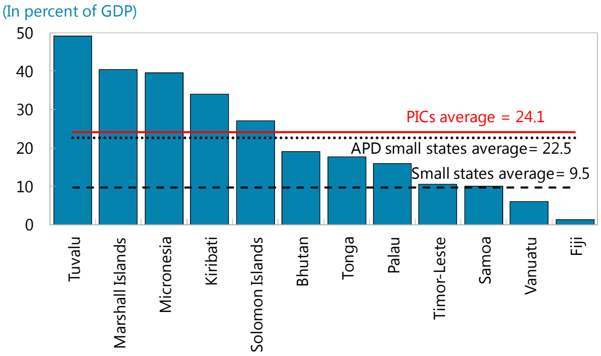
2/ Low-income countries only.

3/ Change of the terms of trade larger than 10 percent.

4/ Defined as a deterioration by 3 points or more in the political stability index (Polity index) from Marshall and Jaggers (2009), complemented with country information.

Figure 22. Small States—Asia and Pacific Region: External Grants, 2011

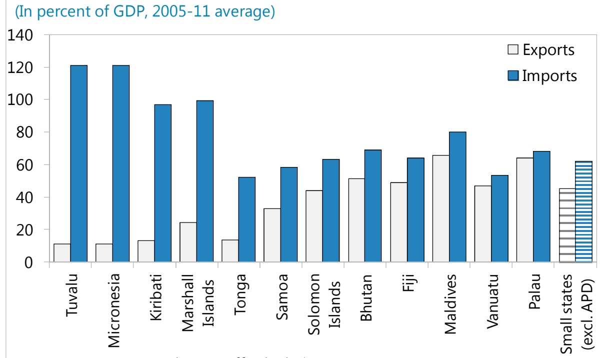
(In percent of GDP)



Sources: IMF, WEO; and IMF staff calculations.

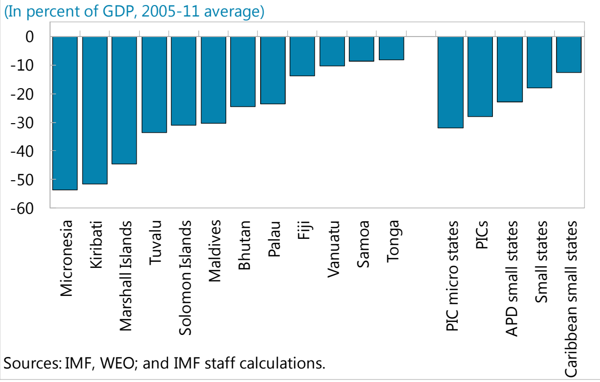
Figure 23. Small States—Asia and Pacific Region: Trade Balance of Goods and Services

(In percent of GDP, 2005-11 average)



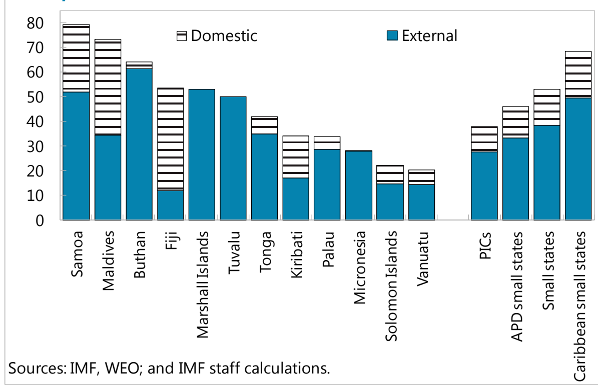
Sources: IMF, WEO; and IMF staff calculations.

Figure 24. Small States—Asia and Pacific Region: Current Account Excluding Grants
(In percent of GDP, 2005-11 average)



Sources: IMF, WEO; and IMF staff calculations.

Figure 25. Small States—Asia and Pacific Region: Public Debt, 2011



Sources: IMF, WEO; and IMF staff calculations.

Owing to large official development assistance (ODA) flows, debt levels have remained in check for most countries until recent years (Figure 25). But since the 2008–09 crisis, debt has increased, in part because of the need for countercyclical fiscal support and partly because of new borrowing from Asian emerging markets. Fiscal space is currently limited for Asia and Pacific small states with high public debt, which narrows the scope for countercyclical policies should the economies weaken. As of February 2013, based on the latest published Article IV staff reports, four Asia-Pacific small states were at high risk of debt distress (Kiribati, Maldives, Tonga, and Tuvalu), according to the low-income countries debt sustainability analysis; three were at moderate risk of debt distress (Bhutan, Samoa, and Solomon Islands); and two at low risk of debt distress (Fiji and Vanuatu).

Different indices of vulnerability to shocks have been developed in the literature. The Becker index (2012) provides a vulnerability ranking based on different dimensions of vulnerability (e.g., small population, volume of arable land, and distance). The analysis also shows that using GNI per capita to determining the income status of small states can be misleading when the population is very small and dispersed. This is because a much higher proportion of income in micro states covers fixed costs of government, such as the costs of establishing institutions and providing public services, especially in countries composed of scattered islands. Therefore, per capita indicators tend to overstate the economic conditions of micro states. Because of the high fixed costs and distance from the rest of the world, these states' effective purchasing power is actually quite low despite a not-so-low GNI per capita. Similar vulnerability indices have been developed by Briguglio (1995) and the Commonwealth Secretariat (2000).

C. Volatility

The small states of the Asia and Pacific region face higher volatility than other small states in several respects, specifically, per capita GDP growth, changes in the terms of trade, aid, current account balance, and revenue.

- *GDP per capita* (Figures 26, 27, and 28). During 1990–2010, the volatility of GDP per capita was higher in Asia and Pacific small states than in other small states—especially the micro states, which are all PICs. Tuvalu experienced the highest variability among the