



February 20, 2013

## MACROECONOMIC ISSUES IN SMALL STATES AND IMPLICATIONS FOR FUND ENGAGEMENT

### KEY POINTS

A deterioration in small states' relative macroeconomic performance since the late 1990s warrants a fresh look at their common challenges and at how the Fund can best engage with them. Small states have performed reasonably well over an extended period, with per capita income levels and social indicators that are broadly in line with those of their larger comparators. However, despite prolonged policy efforts, they have not shared in the improved economic growth of larger peers since the late 1990s, and also continue to experience relatively high levels of macroeconomic volatility. Macroeconomic challenges are particularly marked for the smallest (or "micro") states. Based on common characteristics, this paper attempts to provide a comprehensive framework for examining the growth-related and other challenges of small states.

Small states experience similar burdens linked to a combination of indivisible fixed costs and diseconomies of scale. In the public sector, this results in higher costs and reduced volumes of services provided; in the private sector, in concentrated market structure and a lack of diversification; and in trade, in high transport costs (which are exacerbated for the most remote small states). Small size also influences the financial sector and how small states manage their exposure to natural disasters. These characteristics translate into a number of common macroeconomic features, such as high trade openness, high government wage bills, high levels of state intervention, a heavy reliance on trade tax revenues, and the frequent use of fixed exchange rates.

While small states are very heterogeneous, a few key macroeconomic issues affect many of them. High levels of public debt built up from weak fiscal balances and slow growth now require sustained fiscal consolidation—complemented by more vigorous structural reforms and, in some cases, more exchange rate flexibility. Where the country authorities have considered it infeasible to achieve debt sustainability through these actions alone, some have pursued sovereign debt restructuring; the paper discusses some of the modalities that have been used by small states. A second broad challenge lies in small state financial sectors, which have not yet developed adequately to play their full role in managing volatility and fostering growth. Moreover, because small state commercial banks have often provided a captive market for government financing, financial sector soundness has become closely linked to fiscal sustainability. Managing natural disasters effectively (without endangering fiscal or debt sustainability) and establishing the right policy context in which high levels of aid can lift economic growth are some of the other challenges commonly faced by small states.

The Fund engages with small state members through bilateral surveillance, program and financial support, and capacity building. Partly because many small states are on extended Article IV consultation cycles, Fund operational spending on small (and, especially, micro) states is well below that on larger countries (though not in per capita terms). Country teams for small states also tend to be smaller and more junior. Small states have begun to use Fund financing instruments more actively in recent years, with a noteworthy increase in the use of emergency assistance since 2008—at least partly because of recent facilities reforms. On capacity building, a typical small state receives less TA and training than a larger country—but this finding is reversed if one normalizes by GDP or population. Full FSAPs were undertaken in 2000-10 with about a quarter of small states (and no micro states), compared to about three-quarters of larger states.

There are a number of ways in which the Fund could enhance its engagement in support of small states. A continuing analytical work program is important to better understand issues such as the recent growth under-performance of small states and how policy advice and program design could help these countries to reinvigorate their growth strategies. Other focal points in the Fund's engagement with small states could be the financial sector (given the challenges of small markets and limited supervisory resources) and policies to enhance resilience. Effective engagement with small states requires attention to structural issues and to regional cooperation, placing additional importance on collaboration with the World Bank and other multilateral partners, and on participation in regional fora. The Fund could also consider additional ways to strengthen institutional capacity in small states and to better tailor some of its analytical tools to meet their needs.

Approved By  
**Siddharth Tiwari**

Prepared by the Strategy, Policy, and Review Department, in  
collaboration with other Departments.

## CONTENTS

<b>I. INTRODUCTION AND OVERVIEW</b>	<b>7</b>
<b>II. CHARACTERISTICS OF SMALL STATES</b>	<b>9</b>
<b>III. MACROECONOMIC DEVELOPMENTS IN SMALL STATES</b>	<b>12</b>
A. Growth and Development	13
B. Understanding and Managing Volatility	18
<b>IV. KEY MACROECONOMIC ISSUES IN SMALL STATES</b>	<b>22</b>
A. Debt	23
B. Monetary and Exchange Rate Policy	29
C. Challenges in the Financial Sector	32
D. Natural Disasters: Macroeconomic Impact and Policy Implications	35
E. Aid to Small States	36
<b>V. IMF ENGAGEMENT WITH SMALL STATES</b>	<b>37</b>
A. Surveillance and Staffing	38
B. Program Design and Financial Support	40
C. Capacity Building	41
<b>VI. ENHANCING FUND ENGAGEMENT IN SUPPORT OF SMALL STATES</b>	<b>43</b>
<b>BOX</b>	
Recent Small State Debt Restructurings	28
<b>FIGURES</b>	
1. Small States: Selected Indicators	11
2. Per-capita GNI, by Country Group, 2011	14
3. Real Per-capita Growth, by Country Group, 1980–2010 and 2000–10	15
4. Social Indicators, by Country Group, 2010	16
5. Country Size and Outward Migration, 2010	17
6. Growth Volatility, by Country Group, 1980–2010 and 2000–10	19
7. Volatility and per capita Growth, 1980–2010	19
8. Current Account Volatility, by Country Group, 1980–2010	20
9. External Sector Volatility, by Country Group, 1980–2010	21

10. Fiscal Volatility, by Country Group, 1980–2010	22
11. Sources of Debt Accumulation in Small States, 2007–11	23
12. Total Public Debt, Small States, 2011	24
13. Fiscal Effort Needed to Stabilize Debt Ratios at 2011 Levels	26
14. Soft Pegs: Inflation and Reserves, 2000–10	30
15. Small State Financial Sectors	34
16. Aid Composition, by Region and Sector, 2006–10	37

## TABLES

1. Small State Country Groups	8
2. Large Debt Reductions since 1980	25
3. Exchange Rate Regimes	29
4. IMF Annual Operational Spending, by Country Group, FY 2011–12	39
5. IMF Average Staff Grade, by Country Group and Operations Area, FY 2011–12	39
6. IMF Lending Requests, by Country Group, 2000–11	41
7. IMF TA Provision, by Country Group, 2001–11	42
8. IMF Training, by Country Group, 2008–12	43

## APPENDIX

The Adverse Impact of Macroeconomic Volatility	48
------------------------------------------------	----

## APPENDIX TABLES

1. Regression Results: Determinants of Growth, 1980–2010 and 1990–2010	49
2. Regression Results: Social Indicators and Income, 2005–10	50
3. Regression Results: Determinants of Growth Volatility, 1980–2010	51
4. Cost and Historical Probability of Natural Disasters, 1987–2011	52
5. Doing Business Indicators, by Country Group	53
6. Aid Levels and Aid Volatility, by Country Group, 1980–2010	54

## APPENDIX FIGURES

1. Volatility of per capita GDP Growth, Individual Small States, 1980–2010	55
2. Volatility of CA-to-GDP Ratio, Individual Small States, 1980–2010	56
3. Sources of Debt Accumulation, Western Hemisphere Countries, 2007–11	57
4. Sources of Debt Accumulation, Asia-Pacific Countries, 2007–11	57
5. Macroeconomic Adjustment in Fund-Supported Programs: Small States and other Fund Members, 2002–11	58
6. Debt Dynamics in Fund-Supported Programs: Small States and other Fund Members, 2002–11	59
7. Program Goals and Instruments: GRA-Supported Programs, 2006–11	60
8. Program Goals and Instruments: PRGT-Supported Programs, 2006–11	60
9. Technical Assistance, by Department, 2000–07 and 2008–12	61

References	62
------------	----

## Abbreviations and Acronyms

ACES	Analytical Cost and Estimation System (IMF)
AfDB	African Development Bank
BoP	Balance of Payments
CARICOM	Caribbean Community
CCRIF	Caribbean Catastrophic Risk Insurance Fund
CDERA	Caribbean Disaster Emergency Response Agency
CEMAC	Central African Monetary and Economic Community
CS	Commonwealth Secretariat
DSA	Debt Sustainability Analysis
EAC	East African Community
ECCB	Eastern Caribbean Central Bank
ECCU	Eastern Caribbean Currency Union
ECF	Extended Credit Facility (IMF)
EFF	Extended Fund Facility (IMF)
ENDA	Emergency Natural Disaster Assistance (IMF)
EPCA	Emergency Post-Conflict Assistance (IMF)
ESAF	Enhanced Structural Adjustment Facility (IMF)
ESF	Exogenous Shocks Facility (IMF)
ESF-RAC	Exogenous Shocks Facility-Rapid Access Component (IMF)
FDI	Foreign Direct Investment
FIN	Finance Department (IMF)
FSAP	Financial Sector Assessment Program (IMF and World Bank)
GNI	Gross national income
GRA	General Resources Account (IMF)
HDI	Human Development Index
HIPC	Heavily Indebted Poor Countries
IDA	International Development Association
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IFIs	International Financial Institutions
IFS	International Financial Statistics
ILO	International Labor Organization
LEG	Legal Department (IMF)
LICs	Low-Income Countries
LML	Lower-middle and lower-income countries
MCM	Money and Capital Markets Department (IMF)
MDBs	Multilateral Development Banks
MDGs	Millennium Development Goals
MDR	Multilateral Debt Relief
MDTF	Multi-Donor Trust Fund

MONA	Monitoring of Fund Arrangements Database (IMF)
NGO	Nongovernmental Organization
NPL	Non-Performing Loans
NPV	Net present value
OBP	Office of Budget and Planning (IMF)
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
OFC	Off-Shore Financial Center
PCDR	Post-Catastrophe Disaster Relief Trust (IMF)
PFTAC	Pacific Financial Technical Assistance Center
PICs	Pacific Island Countries
PRGF	Poverty Reduction and Growth Facility (IMF)
PRGT	Poverty Reduction and Growth Trust (IMF)
PRSP	Poverty Reduction Strategy Paper
PSI	Policy Support Instrument
RCF	Rapid Credit Facility (IMF)
RoC	Review of Conditionality (IMF)
ROSC	Report on the Observance of Standards and Codes
SBA	Standby Arrangement (IMF)
SCF	Standby Credit Facility (IMF)
SMP	Staff-Monitored Program
SPR	Strategy, Policy, and Review Department (IMF)
SSF	Small States Forum
TA	Technical Assistance
UCT	Upper Credit Tranche (IMF)
UFR	Use of Fund Resources (IMF)
UMC	Upper middle-income countries
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
WAEMU	West African Economic and Monetary Union
WEO	World Economic Outlook (IMF)
WDR	World Development Report (World Bank)
WTO	World Trade Organization

# I. INTRODUCTION AND OVERVIEW

**1. This paper reviews the macroeconomic characteristics and performance of small states and discusses ways in which the Fund’s engagement with these countries could be better tailored to meet their needs.**<sup>1</sup> The Fund previously examined small states issues in 2000, informed by a Joint Task Force Report of the Commonwealth Secretariat (CS) and World Bank.<sup>2</sup> Small states continue to face many of the same challenges they did then, and the *2000 Small States Report* remains the foundation for much of the work in this area, both inside and outside the Fund. However, the relative macroeconomic performance of small states has deteriorated since the late 1990s, and a fresh look is warranted.

**2. The Fund already recognizes, in various policies and fora, the special characteristics and challenges of small states.** Small size is a factor informing decisions on PRGT eligibility. Fund staff also coordinate their analytical work on selected small states through a “Small Island Club.” And collaboration with other global organizations takes place through the Small States Forum (SSF), which is sponsored by the World Bank and provides for discussions during the IMF/WB Annual Meetings.<sup>3</sup>

**3. This paper focuses on the experience of 33 Fund members with a population in 2011 of under 1.5 million** (Table 1). This threshold is common in the literature, including in the *2000 Small States Report*; it is also used in the PRGT eligibility framework as well as by the World Bank’s IDA.<sup>4</sup> There are, in total, 42 Fund members with populations below 1.5 million. For analytical purposes, however, given the extreme diversity within this larger group, it was decided to narrow the sample to developing countries—excluding those defined as advanced market economies for WEO purposes, as well as fuel exporting countries classified by the World Bank as “high income” (Bahrain, Brunei Darussalam, and Equatorial Guinea). In practice, many countries with populations above the defined threshold may also consider themselves as small, and the policy conclusions in this paper could apply, in varying degrees, to these larger countries as well. To explore whether extreme smallness has distinct characteristics, the report defines a sub-group of “micro states” having populations below 200,000 as of 2011 (15 countries). Although this cutoff is arbitrary, it has been used

<sup>1</sup> This paper was prepared under the overall guidance of Hugh Bredenkamp and Peter Allum (SPR) by a staff team led by Brad McDonald (SPR) and comprising Valerio Crispolti (AFR), Patrizia Tumbarello (APD), Luisa Zanforlin (ICD), and Sarwat Jahan, Francisco Roch, and Ke Wang (SPR), and with substantial contributions from Yiqun Wu (APD), Michael Filippello (OBP), Katrin Elborgh-Woytek, Kerstin Gerling, and Nkunde Mwase (SPR), and JoonKyu Park (WHD). Lisa Kolovich (SPR) coordinated the database and provided research assistance, along with Ezequiel Cabezon (APD), Martin Wachs (ICD), and Sibabrata Das and Lamin Njie (SPR). The regional background papers were led by Patrizia Tumbarello (APD) and Therese Turner-Jones (WHD).

<sup>2</sup> The Task Force was established in 1998 and submitted its final report, *Small States: Meeting Challenges in the Global Economy*, to the Development Committee in April 2000 (DC/2000-04). The report was discussed informally by the IMF Executive Board in 2000.

<sup>3</sup> Other members are the CS, EU, IMF, UNCTAD, and WTO.

<sup>4</sup> With regard to the PRGT eligibility framework, see Decision No. 15105-(12/17). The Small States Forum covers a few countries with populations above 1.5 million.

in the literature, in part because of a break in the size distribution of countries at this point. The paper also explores whether relative income levels are important within small states by comparing the experience of those above and below the World Bank's 2011 per capita income ceiling for lower-middle income countries (\$4,035).<sup>5</sup> Throughout the paper, small states (or particular groups of small states) are often compared to other (larger) countries in their income classification.

**Table 1. Small State Country Groups**

	Upper middle-income (UMC)		Lower-middle and lower-income (LML)	
Small states	S-UMC		S-LML	
	Bahamas, The	Montenegro	Belize	Guyana
	Barbados	Suriname	Bhutan	Solomon Islands
	Maldives	Trinidad & Tobago	Cape Verde	Swaziland
	Mauritius		Comoros	Timor Leste
			Djibouti	Vanuatu
			Fiji	
Micro states	M-UMC		M-LML	
	Antigua & Barbuda	St. Kitts and Nevis	Kiribati	
	Dominica	St. Lucia	Marshall Islands, Rep.	
	Grenada	St. Vincent and the Grenadines	Micronesia	
	Palau	Tonga	Samoa	
	Seychelles	Tuvalu	São Tomé and Príncipe	

Note: Throughout the paper, other (non-small) UMCs are identified as O-UMC and other LMLs as O-LML. References to "small states" include micro states, except where micro states are indicated separately.

**4. The objective of the paper is to seek Directors' views and guidance; conclusions would be drawn at a later stage, following external consultations.** The paper aims to provide an analytical basis for considering possible enhancements to the Fund's engagement in small states. The findings will also inform the forthcoming reviews of PRGT eligibility and the facilities for low-income countries (LICs). No firm conclusions or decisions are proposed in this paper, however. The intention is that, following the Board discussion, staff will discuss the report's findings with small state member authorities and development partners. Based on these consultations and the initial views expressed by Directors, staff would report back to the Board with suggested operational conclusions.

**5. The paper is organized as follows.** Section II summarizes the key characteristics of small economies. Section III reviews their macroeconomic performance and considers how it may have reflected these characteristics. Section IV elaborates on some of the common economic policy issues that arise in small states, while Section V reviews Fund engagement with small states. Section VI concludes by discussing options for enhanced Fund engagement. Companion background papers on the Caribbean and the Pacific Islands cover aspects of the main paper's analytics and main themes in those regions.

<sup>5</sup> This arbitrary cutoff has the advantage of sub-dividing the small state group into similar sized sub-groups.



## II. CHARACTERISTICS OF SMALL STATES

*Size inhibits small states from taking advantage of the scale economies available to larger countries in the public sector, private sector, financial sector, trade, and the response to natural disasters. This results in some common macroeconomic characteristics for small states—though there is considerable diversity between countries and across regions.*

### **6. Small states are often thought to share a number of intrinsic characteristics that can translate into special challenges for their economic development.**

- *Fixed costs in the public sector.* Diseconomies of scale in providing public goods and services can limit institutional capacity because of fixed costs in security, infrastructure, regulatory activities, foreign affairs, education, and policy formulation. This can raise the average cost of the public sector for small states, and may result in the under-provision of some public goods and services.
- *Fixed costs in the private sector.* In a smaller economy, high fixed costs in private sector activities imply cost disadvantages and a more concentrated market structure, with less competition. Trade helps to overcome this, but can itself be limited.
- *High trade costs.* Route-specific fixed costs imply higher trade costs for small states, which can be exacerbated by weak trade-related infrastructure. This effect has been documented to be greater in poorer and more remote countries.<sup>6</sup> High trade costs have several important macroeconomic implications (Obstfeld and Rogoff, 2000).
- *Fixed costs and financial market access.* Small states may have less favorable access to global capital. The *2000 Small States Report* and some other studies point to a natural disadvantage of small states accessing financial markets. They stress that the fixed costs of analyzing and monitoring the capacity to repay are difficult to recoup for small underlying financial transactions, leading to higher spreads and less competition. Creditors may also be reluctant to invest in differentiating among small states, which they may see as prone to volatility.
- *Susceptibility to natural disasters.* Most small states are prone to natural disasters (such as earthquakes and hurricanes) because of the combined effect of their location and small size. At the same time, many are islands that face particular challenges from climate change. Beyond the human cost, natural disasters create considerable macroeconomic variability and destroy or depreciate infrastructure and other capital, adversely affecting well-being—even if not always reflected in measured income. These risks are probably greatest in the poorer small states. Sectoral concentration (arising from the factors noted above) and perhaps geographic concentration raises the vulnerability to natural disaster and other real shocks.

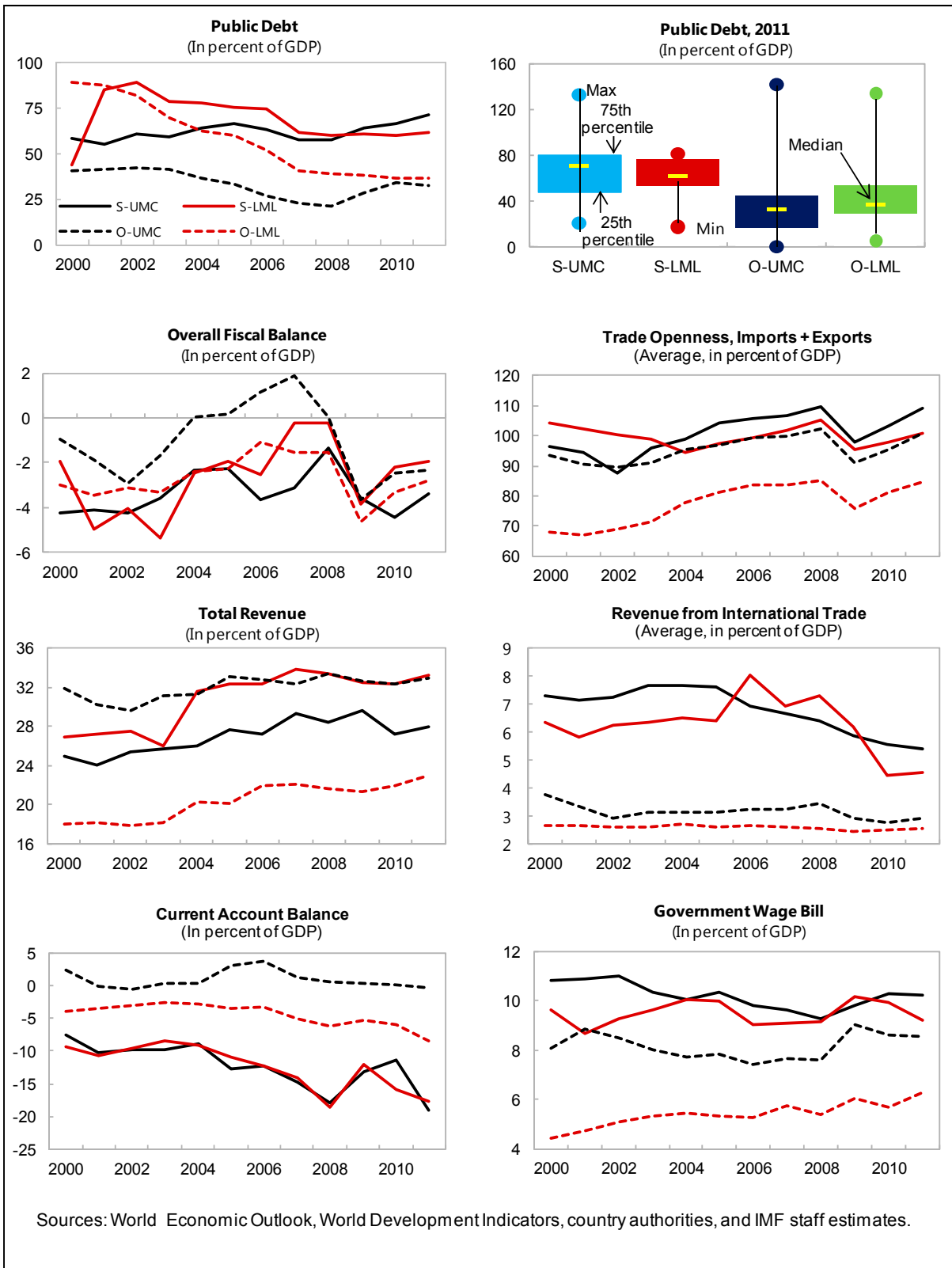
<sup>6</sup> Winters and Martins (2004) document higher trade costs in small remote economies. Gibson and Nero (2008) and Becker (2012) examine the impact of remoteness, small size, and other factors on growth in the Pacific Islands. Malik and Temple (2008) find that remote countries and those with weaker capacity experience more volatility.

## 7. Small size seems to be reflected in a number of macroeconomic characteristics (Figure 1).

- *Fiscal.* Small states have higher overall expenditure-to-GDP ratios and higher wage bills, on average, likely reflecting fixed costs in the public sector.<sup>7</sup> Small states also tend to be more dependent on trade taxes, possibly reflecting higher trade openness and capacity challenges (rooted in public sector fixed costs) in implementing more broad-based tax systems, and, in some regions, a proliferation of income tax holidays and other incentives. Prompted by a lack of private sector competition, high levels of state intervention (including state-owned enterprises) create quasi-fiscal risks and contribute to high debt. High public debt is also, in part, a consequence of the difficulties small states face in managing the response to natural disasters.
- *Output and trade.* Small states' high trade openness reflects in part fixed costs in private sector activities, which trade helps to overcome. The inability to exploit scale economies simultaneously in many industries leads to a concentration of exports on a few goods or services and a focus on the production of goods and services that are not scale-intensive. The limited diversification of production and reduced scope of goods and services traded, and of trading partners, can impact growth and vulnerabilities. Prominent sectors in many small states involve a low domestic wage share, either because of high import content (e.g., tourism, off-shore financial centers) or other reasons (e.g., natural resources).
- *Labor markets.* Limited opportunity to use specialized expertise seems to be a factor behind higher rates of outward migration (or "brain drain") among the more highly educated. More concentrated management in both the public and private sectors leaves individuals responsible for managing a wider variety of activities and tasks. While data are not consistently available across small states, it appears that there is strong seasonality in employment, with many workers from the Caribbean and Pacific Islands participating in temporary migrant workers programs in Canada, the United States, Australia, and New Zealand.
- *Monetary and financial.* Small state financial sectors tend to have less depth (apart from those with off-shore financial centers, OFCs), lower financial access, and (despite greater foreign presence) more concentrated banking sectors. Higher lending-to-deposit spreads and real lending rates may hinder investment and growth, and relatively narrow and shallow financial sectors may reduce resilience. The greater use of pegged or heavily managed exchange rates may reflect the fixed costs of operating an independent monetary policy or that weak monetary transmission mechanisms make monetary policy less effective.

<sup>7</sup> During 2007-11, the ratio of total government expenditure-to-GDP was 9 percentage points of GDP higher in small states than in their larger comparators. Among small states, micro states have considerably higher expenditure ratios than non-micro small states. Differences are greatest among LMLs, and less pronounced among UMCs.

Figure 1. Small States: Selected Indicators



**8. Small states are heterogeneous, and some of these characteristics are more prominent in some regions than others.** For example, the regional background paper on the Caribbean emphasizes high debt and issues of growth and competitiveness, including policy-driven cost disadvantages. In the Pacific Islands, a major concern elaborated in the regional background paper is the macroeconomic and growth challenge posed by the combination of small size and extreme remoteness, which implies higher trade costs. Within each of these regions, countries vary considerably in terms of their geography, natural resource endowments, and other characteristics.

**9. In a recent survey, IMF small state mission chiefs attached macroeconomic importance to many of these characteristics.** At both low and mid-levels of development, they emphasized the macroeconomic implications of weak institutional capacity; lack of diversification and the volatility in terms of trade and external demand; weak competition; and susceptibility to natural disasters. Among the poorest small states, weak monetary policy mechanisms were seen as inhibiting monetary policy effectiveness. Mission chiefs on small UMC countries emphasized high debt levels; reduced fiscal policy effectiveness due to high trade openness; and the quasi-fiscal risks associated with large public sectors.

### III. MACROECONOMIC DEVELOPMENTS IN SMALL STATES

*Income levels and social indicators are currently broadly comparable between small and larger states, but small states' relative growth performance has weakened markedly since the late 1990s. Fiscal and external volatility is consistently higher in small states. These findings are most pronounced for micro states.*

**10. The experience of the past 30 years paints a mixed picture regarding the economic performance of small states.** As is stressed often in the literature, small states can be successful or unsuccessful. Indeed, many former smaller LMLs and UMCs have seen rapid income growth and are now advanced market economies.<sup>8</sup> The determining factors seem to be those that drive success in larger countries, such as sound macroeconomic policies, strong institutions, effective governance, openness, and a positive business environment. Small states may also have some innate advantages: research has pointed to common preferences for public goods and policies, associated with low ethno-linguistic fractionalization, as a positive factor in economic development.<sup>9</sup>

**11. The empirical outcomes for small states reflect the various factors that promote and hamper growth and are discussed below.** Section A discusses small states' experience with growth and development, while Section B examines macroeconomic volatility.

<sup>8</sup> Yusuf and Nabeshima (2012) attribute much of their success to investment in human capital.

<sup>9</sup> The literature is summarized in Alesina and others (2005). Hodler and Knight (2011) find that rent-seeking contests for aid inflows become more damaging as ethnic fractionalization grows, and that this effect is primarily responsible for the detrimental impact of ethnic fractionalization on economic development.

## A. Growth and Development

**12. In many small developing states there is dissatisfaction with the pace of economic progress.** Leaders and policy makers sense that their countries have experienced much weaker performance than larger countries. This view, shared by some development partners, is particularly strong with regard to certain regions or groups of small states. There is also a concern in some areas that measured incomes overstate actual welfare or development levels, whether due to income inequality, weak data, or other factors.

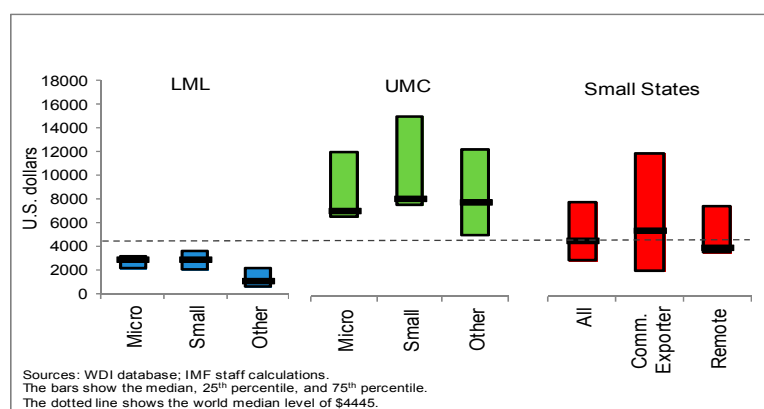
**13. Much of the recent literature has been relatively sanguine about small states' growth experience relative to larger peers.** Based on data through 1995, Easterly and Kraay (2000) concluded that states with populations below 1 million have "on average higher income and productivity levels than large states, and grow no more slowly...." Alesina and others (2005) reached the same overall conclusion, but—rather than suggesting that small states were no different from larger ones—concluded that many had overcome certain size-related disadvantages by achieving higher levels of such growth determinants as openness, education, and financial development.<sup>10</sup> Cordina and Vella (2012) also conclude that small states "...on average show no tendency toward under-development," but experience greater volatility. Similarly, Favaro and Peretz (2008) argued that while small states do face disadvantages, "...all small states can achieve economic success if they follow the right policies to offset their disadvantages and exploit their advantages, with appropriate international support where needed."

**14. Long-period growth rates and income levels are broadly comparable between small and larger states.** Staff analysis covering 1980–2010 finds that small states grew slightly more slowly than their larger peers (by about 0.7 percent a year), after controlling for standard growth determinants (Appendix Table 1).<sup>11</sup> However, this difference is only marginally significant in statistical terms, and the effect disappears with modest changes in the statistical specification. Even allowing for this growth difference, small states score relatively well on income levels. The average per capita gross national income (GNI) of small states was broadly comparable to that of larger states in 2011 (Figure 2). Indeed, regression analysis controlling for regional effects finds that small states had somewhat higher income levels than larger peers—although by lower margins than observed by Easterly and Kraay (2000) (Appendix Table 2). Among small states, commodity exporters have higher average incomes and remote countries lower average incomes.<sup>12</sup>

<sup>10</sup> They found small size *per se* a substantial disadvantage: holding trade openness constant (at its median level), they associate a 10-fold increase in population with a 0.33 percentage point increase in the growth rate.

<sup>11</sup> Similar to other studies, the regressions attribute a substantial growth advantage to trade openness, while showing a negative relationship between high levels of debt and growth, and between output volatility and growth.

<sup>12</sup> Remote countries are defined as those in the bottom third in trade connectivity, measured by the Liner Shipping Index. Several alternative and equally plausible definitions for remoteness have been used in the literature, each measuring somewhat different characteristics. As discussed in the Pacific Islands background paper, these different perspectives help to shed light on the severe challenges faced by small, extremely remote countries.

**Figure 2. Per-capita GNI, by Country Group, 2011**

**15. There are mixed results with regard to current social indicators in small states.** Regression analysis finds that income levels, regional location, and oil exporting status have large influences on a country's UNDP Human Development Index (HDI), as well as on average life expectancy and infant survival rates (see Appendix Table 2).<sup>13</sup> After controlling for income and regional effects, small (but not micro) countries have somewhat shorter average life expectancy (significant at the 90 percent level) and also seem to have slightly higher child mortality rates (although the difference from larger peers is not statistically significant). The overall HDI for small states is broadly in line with that of larger peers, controlling for other factors. While this suggests some adverse size effects on social indicators, these are less important than regional considerations (African countries fare worst) and oil production (associated with low social indicators).

### Lagging small state performance in the 2000s

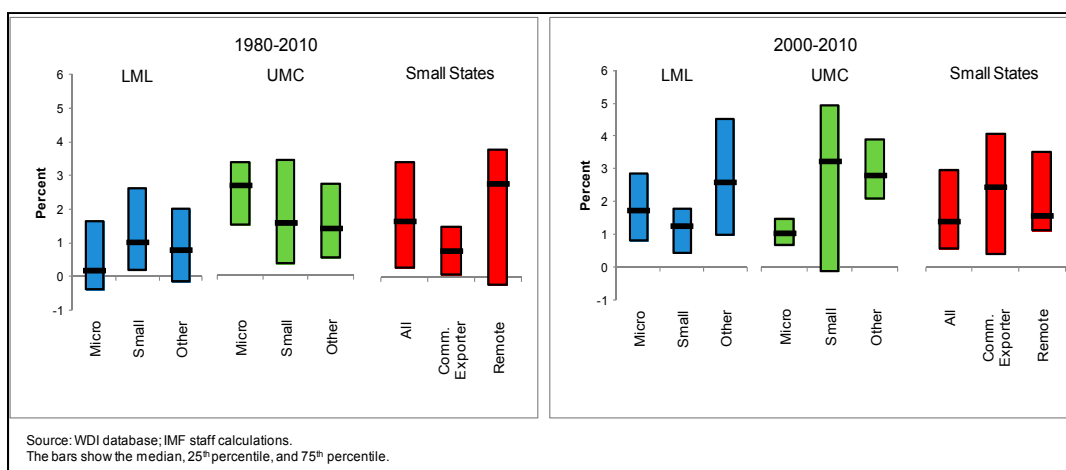
**16. There is evidence, however, that the economic performance of small states has deteriorated over the past decade as measured against that of their larger comparators.** The recent nature of this shift in relative economic performance may explain why comparisons of income and social indicators do not yet show large differences, despite the concerns about economic circumstances noted by the authorities of many small states. Sample size makes regression analysis for the 2000s alone difficult, but the analysis of the period 1990-2010 shows a considerable growth shortfall for small states relative to larger peers (of 1.4 percent per annum).<sup>14</sup> The same result is obtained when considering only micro states (see Appendix Table 2). The recent growth under

<sup>13</sup> The choice of social indicators used here was driven in part by data availability, since some indicators that would be desirable for this purpose (such as poverty rates) are not consistently available for some small states. Recent changes to the construction of the HDI have been criticized by Ravallion (2012) as devaluing longevity.

<sup>14</sup> Other studies have also pointed to a recent deterioration in small states' performance. Favaro and Peretz (2008) review growth studies in Africa, the Caribbean, Europe, and the Pacific over two periods: 1986-95 and 1995-2003. In contrast to a 1 to 2 percentage point increase in growth by other developing countries in the latter period, annual growth among small states slipped by about ½ percentage point. The growth decline was particularly marked among the Pacific island states, but was also observed in Africa and the Caribbean.

performance of small states is clear in Figure 3. Comparing the 2000s with the preceding two decades, the growth of larger states increased significantly—to the point that they substantially out-performed smaller states. While the absolute growth rates of small lower-middle and lower-income countries (LMLs) increased—albeit by much less than their larger peers—the growth of micro upper middle income countries (UMCs) slumped—from a median of 3.9 percent in the 1980s to 1.3 percent in the 2000s. Lower growth coincides with higher output volatility (Section IV).

**Figure 3. Real Per-capita Growth, by Country Group, 1980–2010 and 2000–10**



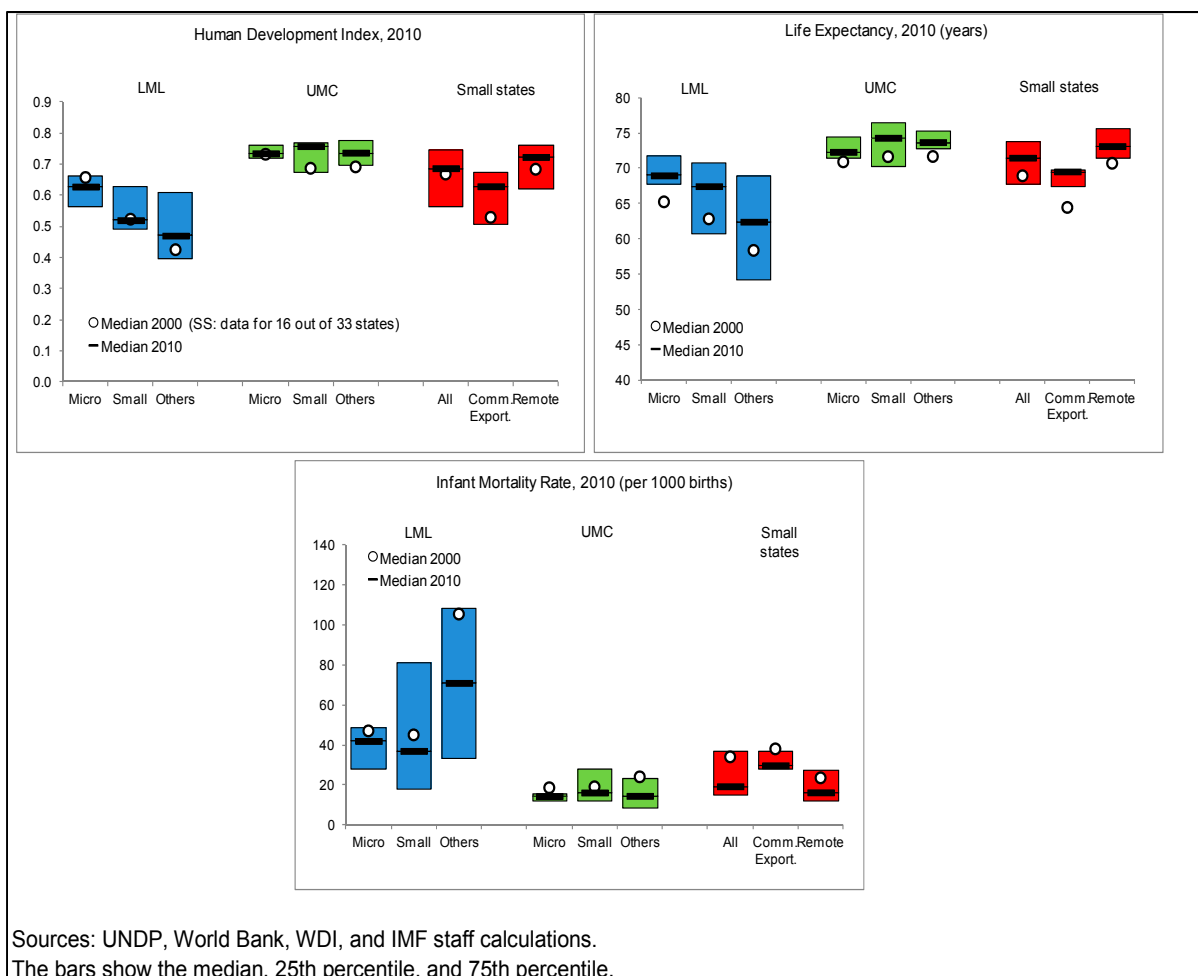
**17. There is some evidence that weaker relative growth is starting to influence relative social indicators.** The increase in public debt and other macroeconomic factors are likely to have contributed to slowing growth, although some factors may have been structural. Infant mortality rates fell by much more for larger states than for small states between 2000 and 2010. Similarly, the HDI improved more for larger states, over this period, than for smaller peers (Figure 4).

**18. The relative importance of factors behind the slowdown in small state growth probably varies across regions and countries.** Schiff and Wang (2012) suggest that lower growth in total factor productivity (TFP) in small states reflects their greater sensitivity of TFP to ‘brain drain’ and their higher rates of outmigration. There is evidence from the Caribbean that it is an issue of low productivity growth, rather than low capital accumulation (Thacker and others, 2012), and prolonged weak competitiveness. Some specific factors that have hampered small state growth are discussed below, though this topic merits further study.

**19. Outward migration has the potential to influence macroeconomic performance in small states.** There is a negative relationship between the population of a country and the relative size of its emigrant community (measured relative to population), and this is particularly strong for the micro states (Figure 5). The broader literature on emigration finds that outward migration mainly involves educated young adults, often in search of greater economic opportunity, suggesting a growth-reducing “brain drain.” While important, this adverse effect seems to be mitigated by the benefits of inward remittances from nationals working abroad, by the return of some emigrants with enhanced

human capital (Gibson and McKenzie, 2011), and because the prospect of future emigration encourages students to complete their secondary education (Batista and others, 2012).

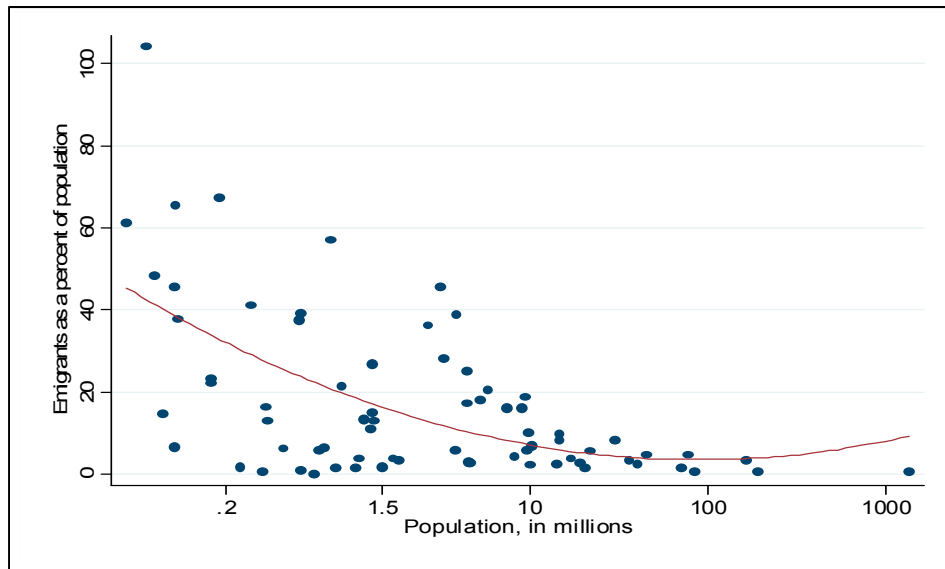
**Figure 4. Social Indicators, by Country Group, 2010**



Sources: UNDP, World Bank, WDI, and IMF staff calculations.  
The bars show the median, 25th percentile, and 75th percentile.

**20. It has also been suggested that developments in the trade sphere may affect growth in small states.** The *2000 Small States Report* highlighted how trade-related issues such as WTO accession, inefficient tax structures and the difficulties they pose for addressing the revenue consequences of tariff liberalization, and the erosion of trade preferences might hinder growth. Among the 33 small states, 22 are now WTO members (with Montenegro, Samoa, and Vanuatu having acceded in 2012) and five others are in the process of acceding.



**Figure 5. Country Size and Outward Migration, 2010**

**21. An erosion of trade preferences may have affected macroeconomic performance in certain countries.** The threat of multilateral trade liberalization causing significant macroeconomic damage does not seem to have materialized, given the modest recent pace of multilateral liberalization and the very broad coverage of preference schemes.<sup>15</sup> Nevertheless, for some smaller economies with high export dependence and export-product concentration in bananas or sugar, EU reforms in these two sectors may have had macroeconomic spillovers (Alexandraki and Lankes, 2004; Mlachila and Cashin, 2007). Analysis has focused, in particular, on the impact of EU agricultural reforms to align trade preferences for ACP countries and those granted other developing countries.<sup>16</sup>

- **Bananas:** Reforms that began in 1992 have had a deep impact on Caribbean banana producers, in particular in the Windward Islands (Dominica, Grenada, St. Lucia, and St. Vincent and the Grenadines). Banana exports from these countries to the EU declined from 20 percent of GDP in the early 1990s to 5 percent in 2005 (Mlachila and others, 2010). A further erosion of preferences, as against those of African and Latin American banana producers, has been estimated to cause a 1½ to 2 percent decline in aggregate output and to raise fiscal deficits by a half percentage point of GDP, with the greatest impact in St. Vincent and the Grenadines, St. Lucia, and Belize (Bauer and others, 2008). Preference erosion is thought to have had a more severe impact on poor rural households.

<sup>15</sup> Considering the spread of free trade agreements and unilateral preference schemes, an exporting country's third-country competitors typically also receive trade preferences in major markets. In most product categories and for most developing countries, this sharply reduces the potential impact of preference erosion from multilateral liberalization (Low and others, 2005 and 2006).

<sup>16</sup> Linked to these policies, the EU has provided partial financial compensation to ACP countries under its Special Framework of Assistance (1999-2008), its STABEX facility, and a Sugar Action Plan (2007-13).

- **Sugar:** In 2005, the EU introduced a 36 percent price reduction for raw sugar, phased over four years. Analyzing the impact on six sugar-exporting Caribbean ACP countries, Bauer and others (2008) estimated that Belize and (especially) Guyana could experience substantial declines in overall exports and a weaker fiscal balance as a result. The expected impact on other countries was more limited, due to a smaller share of sugar production in their GDP.

## B. Understanding and Managing Volatility

**22. Volatility is a fundamental concern for development because it entails significant welfare costs and undermines long-run growth objectives.**<sup>17</sup> Evidence points to volatility having asymmetric effects that result in slower growth, worsened income inequality, and increased poverty (Appendix 1). These effects are particularly strong in countries with characteristics such as limited capacity, weak institutions, low financial access and development, and fiscal rigidities or narrow fiscal space. Since these characteristics are prominent among developing countries and small states, these countries are thought to experience the most volatility and greater medium-term growth losses from volatility.

### Growth volatility experience

**23. Small states experience volatility in per-capita GDP growth that is broadly similar to that experienced by larger countries.** (During the 2000's, however, small states had noticeably higher growth volatility than their larger comparators.) This is despite some evidence of greater variability in their external conditions.<sup>18</sup> Among countries in different income groups, over the full time period median volatility was highest in the micro states; in the 2000's volatility remained fairly high in the micro and other small states, despite dropping considerably in larger countries (Figure 6). Growth volatility tended to be higher among commodity exporters, suggesting a role for export concentration.<sup>19</sup> It also tended to be higher among island economies (and especially the PICs)—in line with research on the impact on output volatility of remoteness, isolation, and geographic dispersion (Malik and Temple, 2008; Rose and Spiegel, 2008).<sup>20</sup> Cross-country regressions point to factors such as variability in terms of trade, external demand, and (in some regression specifications) external aid as being important determinants of output volatility across all countries (Appendix Table 3). Controlling for these and other factors (some of which are themselves related to size, as discussed above), small

<sup>17</sup> Volatility has a number of different meanings. It is used in this paper to refer to realized variability, measured as a five-year backward-looking standard deviation of a variable.

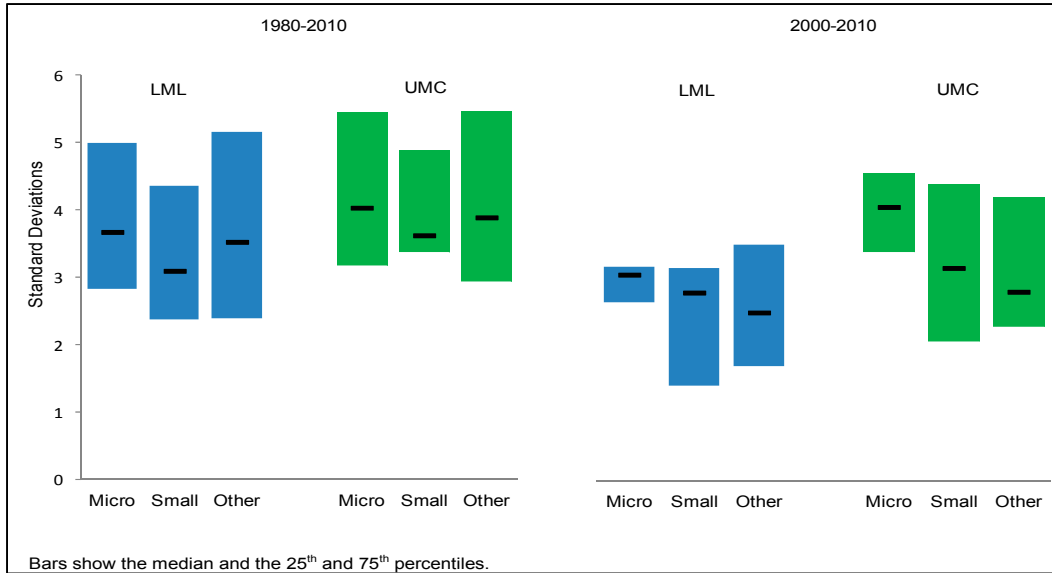
<sup>18</sup> The experience varies considerably. Small states such as the Marshall Islands, St. Lucia, and Tuvalu have experienced high and persistent volatility, as have Montenegro and Timor Leste (Appendix Figure 1).

<sup>19</sup> Meilak (2008) finds that export concentration is higher in small states; this seems to hold in the present sample states as well. Similarly, ongoing IMF staff work on diversification shows that small states (defined as those under 1 million population) have more concentrated output and exports, controlling for per capita income.

<sup>20</sup> Gounder and Saha (2007) examine the empirical relationship between output volatility and growth in the South Pacific Island Nations. They conclude that in this region output volatility has translated into lower growth, principally through an investment channel.

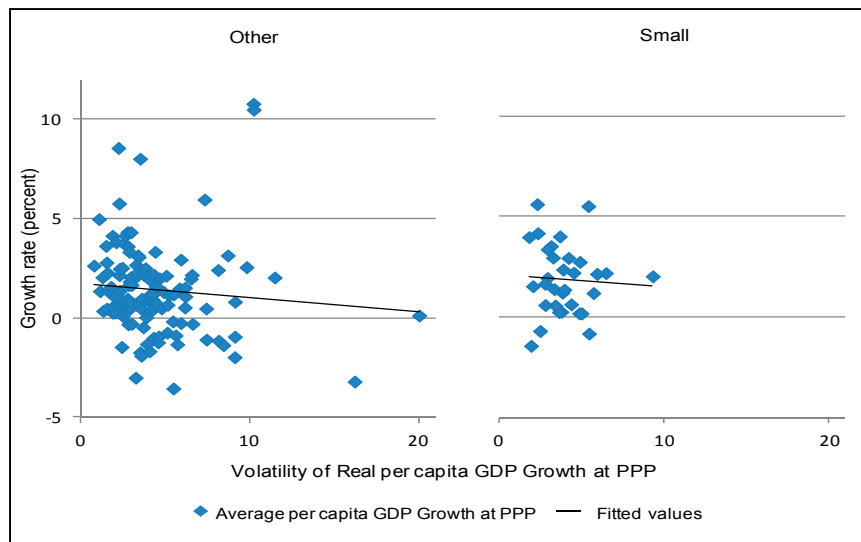
size *per se* (whether for all small states or only micro states) is generally not associated with higher growth volatility. Similar results are obtained with panel regressions.

**Figure 6. Growth Volatility, by Country Group, 1980–2010 and 2000–10**



**24. Regardless of the underlying causes, higher output volatility was associated with lower growth rates over the sample period** (Figure 7). This negative association holds irrespective of the size of an economy. It holds among islands and non-island countries and for diversified exporters, but not for fuel and other commodity exporters.

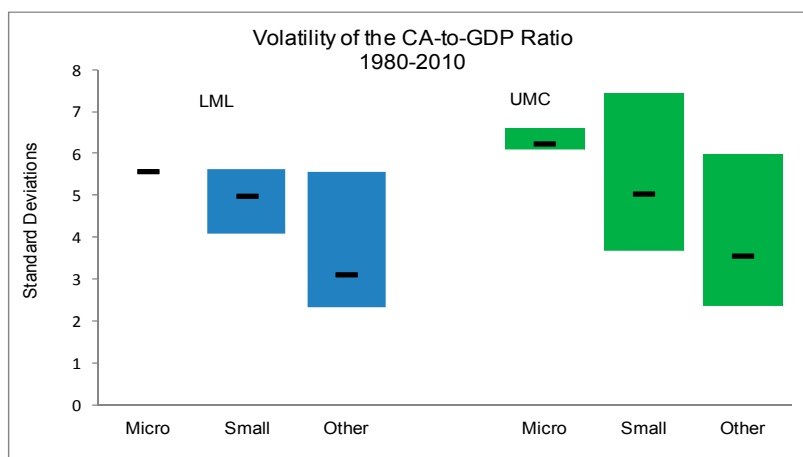
**Figure 7. Volatility and per capita Growth, 1980–2010**



## External sector volatility

**25. Small states experienced considerably greater current account volatility than larger countries of similar income levels** (Figure 8). This finding is especially strong for micro states. The higher volatility in current account-to-GDP ratios in small and micro states may reflect their greater openness and hence susceptibility to changes in the external environment. Current account volatility varies considerably across small states (Appendix Figure 2).

**Figure 8. Current Account Volatility, by Country Group, 1980–2010**



**26. High current account volatility likely reflected greater variability in some aspects of the external environment faced by small states.** Small states did not seem to experience greater variability of external demand (proxied by real GDP growth in trading partners) than their larger peers, despite their greater export concentration. Small states do not seem to experience larger terms of trade swings, either. However, when weighted by their higher levels of trade openness, terms of trade volatility *is* higher in small UMCs and LMLs (Figure 9).<sup>21</sup> Moreover, both micro UMCs and micro LMLs have more volatile aid inflows than larger countries in their respective income groups. Compared to countries of the same income grouping, micro states experience much higher volatility in capital flows.

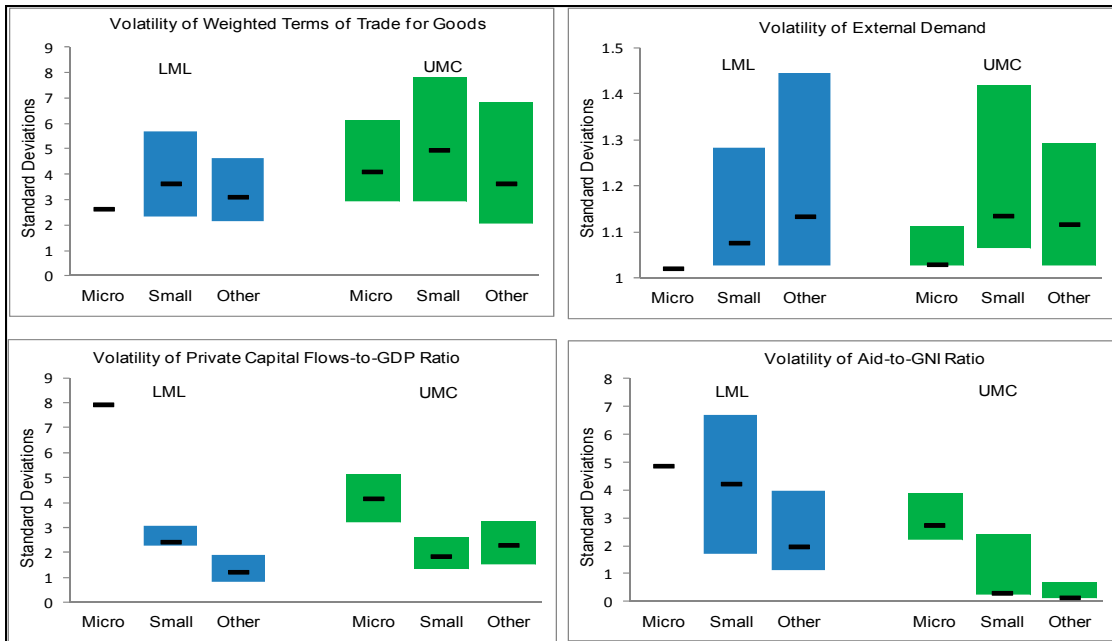
## Fiscal volatility

**27. Fiscal volatility has also been higher in small states.** Small states experience higher variability in overall balances, revenue ratios, and expenditure ratios (Figure 10). Micro LMLs (a group of five countries in our sample) seem to experience especially high fiscal volatility. Revenue volatility typically is linked to a greater reliance on trade taxes, as documented above, which tend to be more variable. Expenditure volatility may reflect the relatively high expenditure shares in small states on

<sup>21</sup> When looking at a weighted terms of trade index for both goods and services, however, there is no such difference among small states and the larger countries in their income group. The goods and services measure is preferred in principle, but because data on services prices are less reliable it may not be preferable in practice.

inflexible items like wages, but may also be due to such things as aid volatility (due in part to uneven project implementation in recipient countries), lumpy capital spending, spending responses to natural disasters (see below), or lack of discipline related to weak capacity. Volatility in overall fiscal balances does not seem to reflect pro-cyclical fiscal policy.<sup>22</sup>

**Figure 9. External Sector Volatility, by Country Group, 1980–2010**

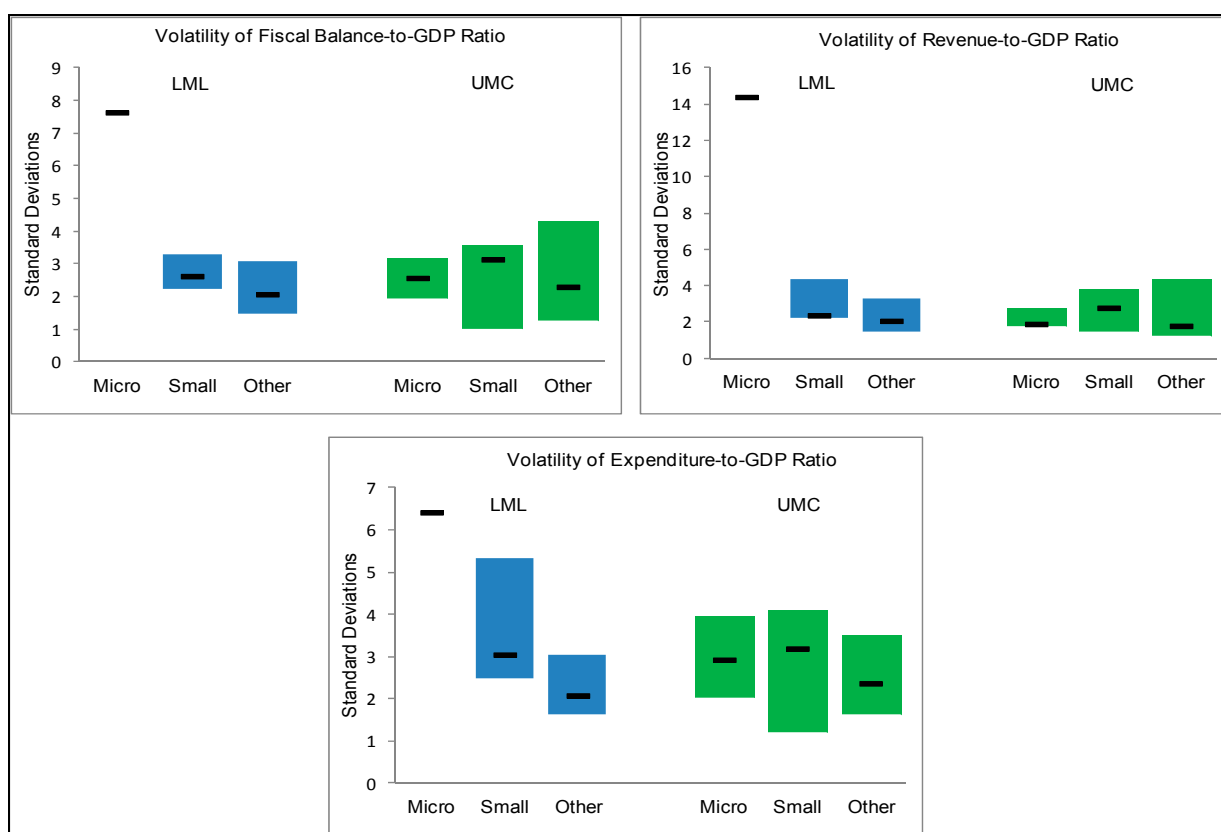


**Impact of natural disasters**

**28. Small states experience substantially higher costs of natural disasters relative to the size of their economies.** At about 1.9 percent of GDP, the ratio of natural disaster costs in small states is roughly triple that in larger LMLs and UMCs (Appendix Table 4).<sup>23</sup> These costs are highest in micro states (particularly those of the Caribbean). Small states do not, however, experience a greater frequency of years with extreme natural disaster costs in the top decile of the sample. This could be due to the distribution of extreme disasters, but might instead reflect the structure of small state economies (e.g., infrastructure) or their preparedness (relative to other countries at similar income levels).

<sup>22</sup> In cross-country regressions, staff examined various measures of fiscal volatility against a small state dummy variable and regional and additional controls (such as trade openness and terms of trade volatility). In these regressions, fiscal policy pro-cyclicality (defined as a rolling correlation of GDP growth and the growth rate of the ratio of public consumption to GDP) was not a significant influence on small states’ fiscal volatility.

<sup>23</sup> The EM-DAT database used in the Table is the most comprehensive source available. It may understate losses, however, as Strobl (2012) argues with regard to hurricanes in Central America and the Caribbean.

**Figure 10. Fiscal Volatility, by Country Group, 1980–2010**


## IV. KEY MACROECONOMIC ISSUES IN SMALL STATES

*Restoring public debt sustainability is a key challenge in many small states, and will require sustained fiscal adjustment, with supporting policies and structural reforms. Other major issues include the choice of exchange rate regime and how external adjustment can be achieved given that choice; financial sector development to foster growth and promote stability; managing natural disaster risks effectively; and the growth-promoting use of aid.*

**29. Small states share a number of key macroeconomic policy issues.** This paper cannot cover each of the topics in depth: it attempts instead to give a summary assessment of the problems and an indication of the policy options that would need to be explored further—either for sub-groups of countries or on a country-specific basis. Section IV.A examines debt issues in small states, considers (in very broad terms) the scale of adjustment needed, and presents examples of complementary approaches to debt reduction taken by small states. Monetary and exchange rate policy is considered in Section IV.B, and the role of the financial sector in promoting stability and growth is discussed in Section IV.C. The section concludes by examining macroeconomic policy issues related to natural disasters (Section IV.D) and aid (Section IV.E).

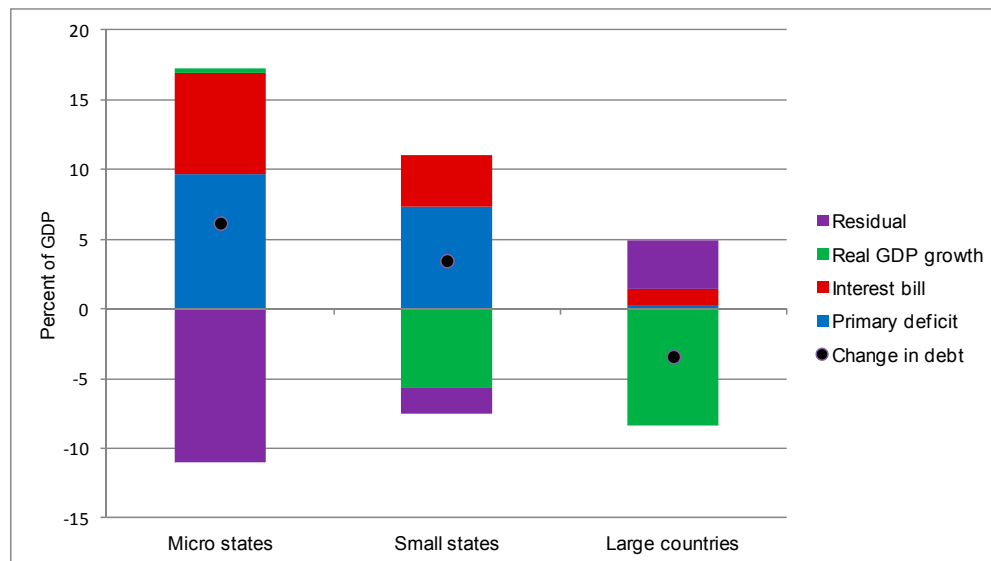
## A. Debt

### Overview of fiscal and debt indicators

**30. Weak fiscal balances and slow growth have contributed to a sizeable accumulation of public debt in many small states.** Despite decreasing in the mid-2000’s, driven in part by debt relief and restructuring operations, average debt levels in small states remain about 20 percentage points of GDP higher than in their larger counterparts. Figure 11 shows the decomposition of factors responsible for recent government debt dynamics, as reported in IMF debt sustainability analyses (DSAs).<sup>24</sup> During 2007-11, cumulatively, public debt accumulation in micro states averaged about 6 percentage points, while that in other small states rose by about 4 percentage points. For micro states and other small states, primary fiscal deficits contributed substantially to debt accumulation, exacerbated by large interest payments. For larger countries, debt *fell* by some 3 percentage points during the period, reflecting stronger fiscal performance and more rapid economic growth.

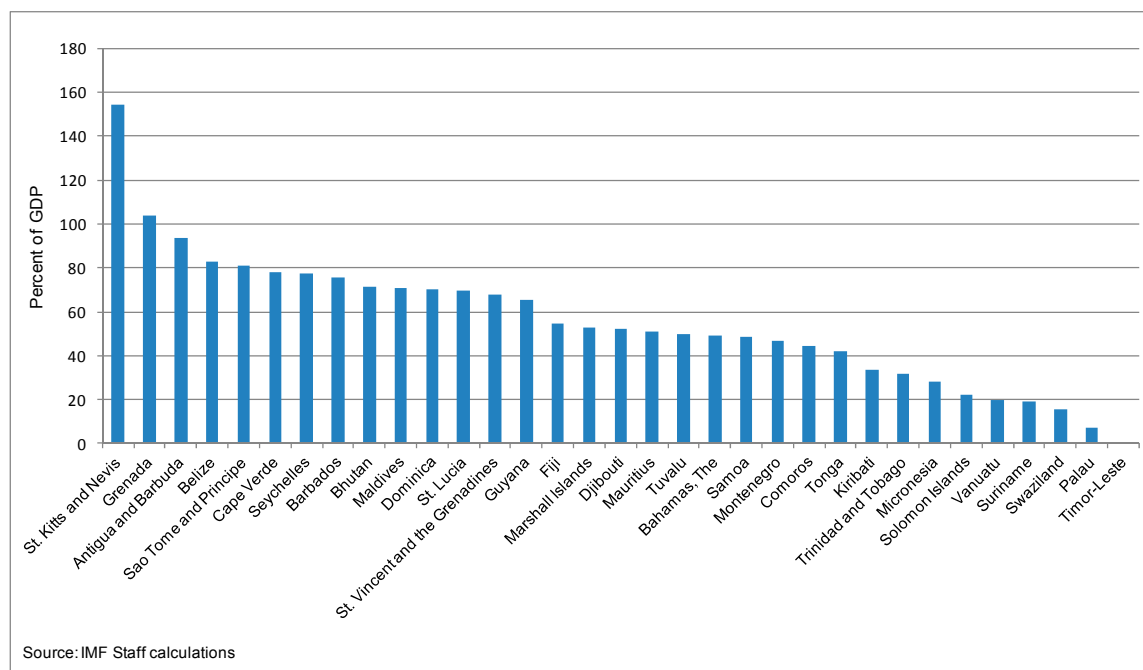
**31. The broad trends notwithstanding, there is considerable diversity in debt burdens across the sample.** The ratio of public debt-to-GDP ranges as high as 154 percent in St. Kitts and Nevis (Figure 12). Of the 17 low-income countries (LICs) in the group, about half appear to have debt sustainability concerns. As of 2010, seven countries were at high risk of debt distress, and one was in debt distress.<sup>25</sup>

**Figure 11. Sources of Debt Accumulation in Small States, 2007–11**



<sup>24</sup> Details for Western Hemisphere and Asia-Pacific small states are provided in Appendix Figures 3 and 4.

<sup>25</sup> The “risk of debt distress” rating is available only for LICs (that is, those countries eligible for the PRGT). The country in debt distress, Comoros, reached the completion point under the HIPC Initiative in December 2012 and its debt distress risk is now assessed to be high.

**Figure 12. Total Public Debt, Small States, 2011**

## Policy options

**32. Given their varied debt and macroeconomic situations, policy frameworks for assuring debt sustainability in small states must be tailored to the individual country.** Experience shows that, in situations where debt burdens are excessive, restoring debt sustainability invariably requires sustained fiscal consolidation. To be successful, such adjustment efforts typically need to be accompanied by bold growth-enhancing structural and governance reforms. In this regard, public sector reform is likely to be a priority in many small states. Even with strong political will, however, adjustment and reform on the scale needed to restore debt sustainability may be infeasible: among those highly indebted countries (of all sizes, but excluding LICs) that have achieved large-scale debt reductions over the past 30 years, just over half included an element of debt restructuring as part of the policy package (Table 2).<sup>26</sup> The remainder of this sub-section discusses further the role that fiscal adjustment might be called upon to play in small states, and what options could be considered in those cases where resort to debt restructuring might be needed.

<sup>26</sup> Amo-Yartey and others (2012) looked at the composition of debt reduction efforts over a larger sample and found similar results. They examined 206 episodes of large debt reductions (15 percent of GDP or more over 5 years) in a data set of 155 advanced and emerging economies between 1970 and 2009. The average decline in the debt-to-GDP ratio in these episodes was 35 percentage points. In about half the cases, debt reduction was achieved through higher GDP growth, higher inflation, or fiscal consolidation, with a quarter of these episodes being preceded by the introduction of a fiscal rule. The remaining cases included debt restructuring or default.



**Fiscal consolidation**

**33. Published debt sustainability analyses (DSAs) suggest that merely stabilizing public debt to GDP ratios at their end-2011 level would require some degree of fiscal adjustment in almost half of the small states in the sample.** The extent of the fiscal adjustment effort needed to stabilize public debt ranges from 1.2 percent of GDP for Bhutan to 15 percent in Maldives (Figure 13).<sup>27</sup> Of course, in some countries, the sustainable level of debt may be lower than the current level, implying that needed adjustments may be even larger. Similarly, the importance of the fiscal effort in a specific country cannot be gauged solely by its scale; it depends also on the starting level of public debt. For example, the 3.2 percent of GDP effort that would be needed to stabilize debt in Grenada, with debt equivalent to about 100 percent of GDP, may be more imperative than the 7.7 percent of GDP effort needed in The Bahamas, with a debt-to-GDP ratio half that level.

**34. While the feasibility of the needed fiscal adjustment in highly indebted small states would have to be evaluated case by case, there is some evidence that small states are capable of adjustment efforts comparable to those of larger countries.** In particular, the recent Review of Conditionality (IMF, 2012) found that, among countries with programs supported under upper credit tranche (UCT) Fund arrangements during 2002-11, the adjustment in fiscal and external current account balances achieved by small states was similar to that of comparator countries (see Appendix Figure 5).<sup>28</sup> Outcomes regarding growth and inflation were also in line with or better than those for larger countries. Medina-Cas and Ota (2008), looking at the experience of small states since the early 1990s, also found nine episodes of large-scale fiscal adjustment, though in most of these cases it appeared that the effort was not sustained.<sup>29</sup>

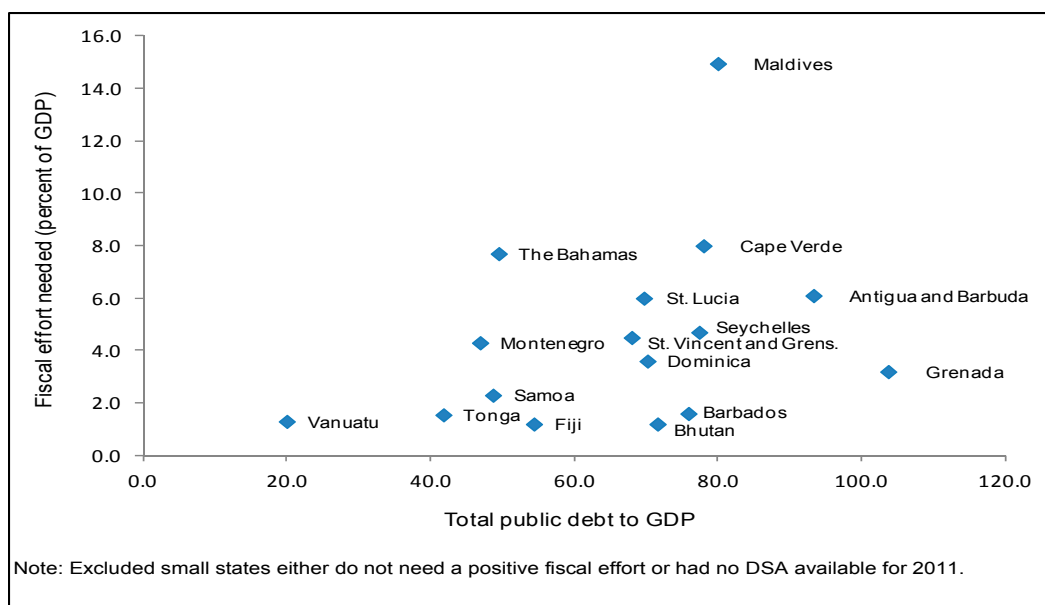
**Table 2. Large Debt Reductions since 1980<sup>1/</sup>**

	Number of Episodes	Restructuring	Others
All (EMs and AMs)	81	34	47
Initial debt > 120	20	12	8
Initial debt > 90	38	19	19
Source: Staff estimates.			
1/ Cumulative debt reduction of at least 20 percentage points of GDP.			

<sup>27</sup> The adjustment is given by the debt stabilizing primary balance minus the actual primary balance.

<sup>28</sup> As a caveat, it should be noted that these findings were based on a sample that included only 12 small states.

<sup>29</sup> This study focused on episodes where the average primary balance increased by at least 10 percentage points of GDP for a three-year period, relative to the preceding three-year period. In two-thirds of the episodes, growth increased (by an average 1.7 percent).

**Figure 13. Fiscal Effort Needed to Stabilize Debt Ratios at 2011 Levels****35. Cross-country experience can provide some lessons on how to sustain fiscal adjustment.**

Empirically, fiscal consolidation has been more successful when:

- *The initial adjustment was larger.* The likelihood of success of the fiscal consolidation depends on the size of the initial adjustment, as measured by the change in primary fiscal balance (Ardagna, 2004). Moreover, large initial deficits and high interest rates are associated with larger and longer fiscal adjustments (Guichard and others, 2011). Large fiscal adjustments may also enhance growth through improvements in private investment and consumption (Tsibouris and others, 2006).
- *Adjustment emphasized spending reductions—in particular, on current expenditures.* Daniel and others (2006) conclude that durable adjustments generally require reductions in current spending, especially transfers and subsidies. Price (2010) finds that spending cuts facilitate consolidation by signaling commitment, while also generating efficiency gains. Consolidations led by cuts in wages, subsidies, and transfers are more sustainable and are associated with expansions rather than recessions, and are thus more effective than capital expenditure cuts (Alesina and Perotti, 1997).
- *Fiscal rules were present.* Expenditure-focused rules are associated with larger and longer fiscal consolidations (Amo-Yartey and others, 2012).

**36. The substantial fiscal effort needed even to stabilize debt levels in some small states requires strong supporting policies.** As noted in the Caribbean background paper, small states have often been unable to sustain the quality of fiscal consolidation seen in historical episodes of large debt reductions. Many need to strengthen fiscal institutions, reduce tax expenditures, contain contingent liabilities, and actively manage debt. To boost their impact in reducing the debt burden, fiscal consolidation efforts should be accompanied by growth-enhancing strategies that promote competitiveness and private sector development. Especially important are reforms to the business

climate in areas where small states lag behind their comparators, such as registering property and getting credit (Appendix Table 5). These steps would also spur private sector job creation, absorbing labor released from the public sector.

### ***Additional options for debt reduction***

**37. Even under favorable conditions, some individual small states may find that achieving debt sustainability through consolidation and growth alone is infeasible.** The amounts of financing available and the ability to sustain adjustment may prove insufficient to deliver the needed debt reduction. In such cases, debt restructuring may need to be considered, in support of the country's fiscal consolidation and other policy efforts. Drawbacks associated with debt restructuring must also be weighed—in particular those related to longer-term growth (which may be dependent on future financial market access) and financial stability (where the composition of debt and links to the domestic financial sector can be critical); these considerations can make debt restructuring (or at least some approaches to it) much less attractive.

**38. Decisions to pursue sovereign debt restructuring rest with country authorities.** The Fund advises members to remain current on all debt obligations to the extent possible. When the authorities decide to pursue debt restructuring, the Fund leaves the details of the debt restructuring strategy to the debtor and its legal and financial advisors. In such cases involving debt restructuring, the Fund helps the member design an adjustment program to restore debt sustainability and external viability, and helps determine the financing envelope that serves as the framework for the debt restructuring operation. The Fund also plays a role in helping countries to avoid the accumulation of unsustainable debt in the context of Fund-supported programs, through conditionality on fiscal targets and debt limits and the assessment of debt dynamics in the Debt Sustainability Framework (DSF).

**39. Traditional internationally-agreed debt restructuring and relief mechanisms—HIPC and MDR initiatives and Paris Club rescheduling agreements—are unavailable to many small states.** Among the small states, only Comoros, Guyana, and Sao Tome and Principe are HIPC-eligible.<sup>30</sup> And because most non-HIPC small states owe substantial shares of their debt to non-Paris Club and domestic creditors, a Paris Club restructuring may be of less benefit, although it could still establish key debt restructuring parameters.

**40. Different modalities for sovereign debt restructuring have been implemented by different small states.** Box 1 describes recent cases. The main modalities are debt exchanges, debt buybacks, and debt swaps:

- **Debt exchanges** consist of offering new instruments to existing bondholders which reflect the restructuring terms (on principal, coupon, maturity, and other terms) in exchange for the old bonds. Debt exchanges can potentially raise problems with holdouts and ensuing litigation.

<sup>30</sup> Guyana received enhanced HIPC relief in the early 2000s and subsequently received relief under the MDRI; Comoros reached the HIPC Completion Point in 2012, and Sao Tome reached the Completion Point in 2007.

### Box. Recent Small State Debt Restructurings

**In the Seychelles, the authorities restructured about 91 percent of eligible debt in 2009.** At end-2008, the external debt stock stood at about US\$760 million (83 percent of GDP), 42 percent of it in arrears. Commercial (62 percent) and Paris Club (18 percent) creditors held most of this debt. In April 2009, the Government reached an exceptional Paris Club agreement on some US\$160 million in bilateral debt, providing for an overall nominal debt cancellation of 45 percent, with the remaining debt to be repaid over 18 years. The agreement extends the average life of the debt portfolio from 6 months to 13 years, and obliged Seychelles to seek comparable treatment from other bilateral and private creditors. The authorities then received an unprecedented US\$10 million AfDB guarantee in December 2009, partially covering interest obligations under a bond exchange offer on US\$320 million of private sector debt, on which they subsequently closed with full participation—the first modern sovereign bond restructuring with no residual holdout creditors. The debt restructuring included a collective action clause with a minimum threshold for participation. About half of the debt was canceled, providing substantial relief compared to other recent sovereign external debt exchanges.

**St. Kitts and Nevis concluded a domestic debt-land swap in 2012 with domestic banks and the Nevis Island Administration.** Two land management companies were established; these remain to be staffed and operational guidelines established to ensure transparency and accountability, including an appropriate governance structure and the plans for the sale of land in line with domestic legislation. The registry and valuation of additional 600 acres of land has been completed, and the transfer of land to the management companies was completed by September 2012. Once the management companies are operational, the existing public land sales and development agencies will be rationalized. The debt-land swap helped to extinguish domestic debt equivalent to 45 percent of GDP.

**Antigua and Barbuda agreed significant debt relief with creditors in 2005.** Italy agreed to clear US\$196 million (26 percent of GDP) in loans and arrears through cash payments of US\$14.2 million; domestic banks reduced interest rates on government obligations by 1–3 percentage points. By end-2010, Antigua and Barbuda had secured debt restructuring agreements with most other external and domestic creditors, including through a September 2010 Paris Club agreement to restructure US\$143 million in bilateral debt. Domestically, there has been extensive restructuring of debt to statutory bodies and domestic suppliers, with substantial haircuts on the face value of the debts. The Government also negotiated a voluntary restructuring of much of the domestic debt held by commercial banks, lengthening maturity to 20 years (from an average of 5 years) and cutting interest rates to 8 percent (from an average of 13 percent). Largely as a result of these restructuring measures, the debt-to-GDP ratio declined from 99 percent at end-2009 to 83 percent at end-2010.

**In light of a difficult financing outlook, Belize announced in August 2006 its intention to pursue debt restructuring based on a cooperative agreement with external commercial creditors.** The authorities also expressed willingness to recognize and work with a creditors' committee representing holders of at least 51 percent of the affected debt. A final agreement with creditors was completed in February 2007 and involved an exchange offer to replace existing debt held by private creditors by a new bond with longer maturity (a 14 year maturity extension), semi-annual payments beginning 10 years before maturity, and a step-up interest rate structure. The nearly full participation contributed to a 21 percent debt reduction in NPV terms and provided the Government significant liquidity relief. The 2006 Article IV consultation provided an important input into the formulation of an adjustment scenario that the authorities were preparing with their financial advisors. In response to the authorities' request, the Managing Director provided an assessment letter to the international financial community in December 2006.

- **Debt buybacks** involve the repurchase of debt by the debtor, typically at a discount. The main challenge with securing the benefits of a buyback is that prices typically rise in the run up to the operation, as news about it becomes public. Officially-financed debt buybacks can reduce the debt level most effectively when (i) there is a large amount of bonds in the market trading at distressed prices; (ii) the government can buy those bonds without significant price increases in the run-up to the operation; and (iii) the terms of new debt contracted to finance the debt buyback are favorable and do not outweigh any benefits from the operation itself.

- **Debt swaps** involve the exchange of debt at a discount for assets or a local currency non-debt obligation. These operations are easier in cases where debt is collateralized by an asset, as in the recent debt-land swap in St. Kitts and Nevis. Debt-swaps may be impeded by difficulties in asset valuation if market prices are not available. Legal or institutional issues may also arise.

**41. While circumstances vary, successful operations have been marked by some common features.** Regardless of the option chosen by country authorities, close creditor communication, transparency and cooperation along with strong commitment by the authorities to economic and structural reform, typically in the context of a Fund-supported program, are helpful in these operations. The provision of comprehensive and accurate debt and other relevant economic data was also an important part of the process.

**42. In sum, even where debt restructuring may be needed, sustained fiscal health is necessary for a lasting solution to small states' debt problems.** As highlighted by Figure 11 above, primary deficits and interest expense (which in turn is the consequence of past borrowing) have been key contributors to the rise of public debt in small states. Thus, even in cases where public debt is so large that restoring sustainability requires restructuring, sustained fiscal adjustment is required to avoid a repeated debt restructuring need. As discussed above, the factors that can help sustain adjustment include a large upfront adjustment, spending reductions, and fiscal rules.

## B. Monetary and Exchange Rate Policy

### Exchange rate regimes

**43. Small states tend to use fixed exchange rates regimes more frequently than their larger counterparts.** While flexible exchange rate arrangements are more common in larger countries, small states have mostly opted for intermediate regimes or soft pegs, as shallow currency and securities markets complicate monetary and exchange rate management (Table 3).

**Table 3. Exchange Rate Regimes**

	Hard Pegs		Soft Pegs		Floating	
	Count	In percent of total	Count	In percent of total	Count	In percent of total
<b>LML</b>	<b>8</b>	9	<b>42</b>	49	<b>36</b>	42
Small	5	31	11	69	0	0
Other	3	4	31	44	36	51
<b>UMC</b>	<b>15</b>	22	<b>33</b>	49	<b>20</b>	29
Small	9	53	6	35	2	12
Other	6	12	27	53	18	35
<b>Pacific islands</b>	<b>5</b>	45	<b>5</b>	45	<b>1</b>	9
<b>Caribbean islands</b>	<b>6</b>	40	<b>9</b>	60	<b>0</b>	0

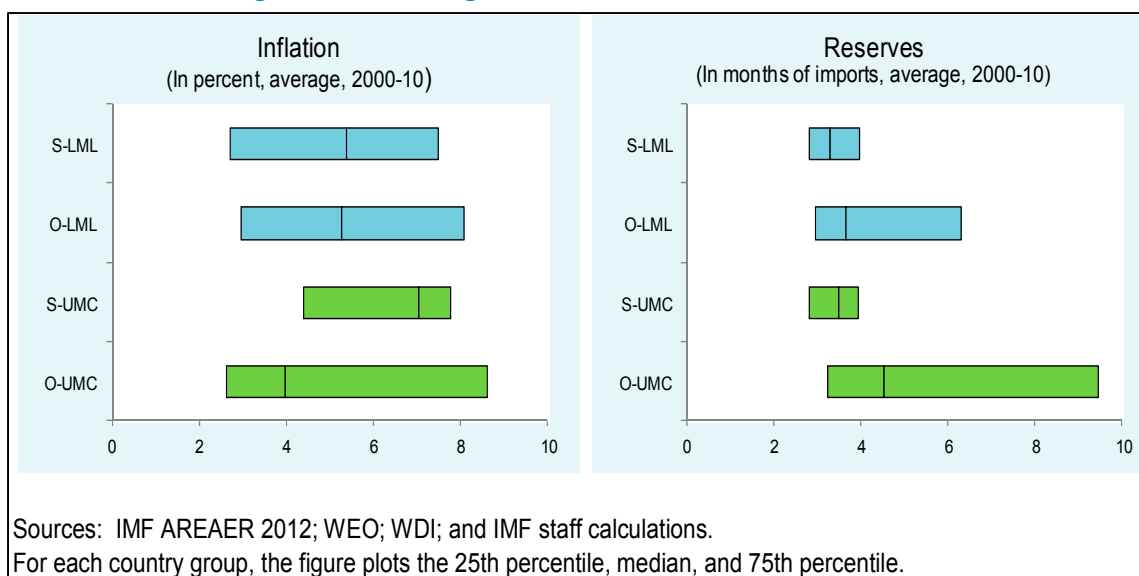
Sources: IMF Annual Report on Exchange Arrangements and Exchange Restrictions, 2012 and IMF staff calculations.

Note: Based on Exchange Rate Arrangement Categories in AREAER according to the 2008 Classification System. "Hard Pegs" refers to exchange arrangement with no separate legal tender and a currency board arrangement. "Soft Pegs" include conventional pegged arrangements, stabilized arrangements, crawling pegs, crawl-like arrangements, and pegged exchange rates within horizontal bands. "Floating arrangements" include floating and free floating arrangements.

**44. Fixed exchange rate regimes may have helped to achieve and maintain price stability, but have also brought risks.** Headline inflation among soft pegs has been fairly low (Figure 14), as fixed exchange rate regimes have provided a nominal anchor. However, small states remain prone to periodic exchange rate adjustments or to sustained periods of overvaluation, compromising the external position and financial sectors. In addition, absent independent monetary policy instruments, strong fiscal management is required to avoid excessive debt and to preserve sufficient space for macroeconomic adjustment policies.

**45. Given small states' higher exposure to external shocks, buffers are key.** In a context of limited exchange rate flexibility, maintaining adequate reserves is of particular importance—all the more in small states, where access to international funding can be limited. Despite this, levels of international reserves in small states are not typically above those in other countries. In addition, even where reserve coverage was above three months of imports, it was not sufficient to avert GDP losses following terms-of-trade shocks, particularly for island economies (including small states) and countries with an exchange rate peg (Crispolti and others, 2013).

**Figure 14. Soft Pegs: Inflation and Reserves, 2000–10**



**46. The choice of fixed exchange rate regimes requires flexible domestic product and factor markets and strong fiscal policy management—all the more in highly open small states.** IMF (2007) emphasized the role of competitive, flexible markets: a larger trade account adjustment is achieved with a relatively smaller change in the terms of trade when product and labor markets are fully able to adjust employment and wages. Moreover, recent evidence suggesting that services trade is at least as responsive to exchange rate adjustments as merchandise trade implies that exchange rate adjustments in services-based small states may be more effective than previously thought (Eichengreen and Gupta, 2012).

## External adjustment: role of the exchange rate

**47. Typically, exchange rate adjustment will be a necessary part of the policy response when competitiveness is low or the external position has become unsustainable.** It has been suggested that exchange rate adjustments may be less effective in highly open small states, as the desired impact on relative prices is partly offset by a high pass-through to domestic production costs (on account of the high import-content of domestic output). Depreciation or devaluation may do little to improve external positions in this situation, even—depending on wage flexibility—in the medium-term (Worrell, 2012).<sup>31</sup> Some small countries have effectively implemented exchange rate adjustment. For example, Fiji was able to build reserves quickly by devaluing by 20 percent in 2009 under balance of payments (BoP) pressure (Yang and others, 2011). That said, a separate examination by Fund staff of large devaluation episodes (including 24 such events in smaller countries) suggests that exchange rate adjustments may be less effective in highly open small states (IMF, 2013). Regardless of country size, experience indicates that exchange rate adjustment is less effective once a country is under financial stress or with substantial reserve pressures—suggesting the importance of early action.

**48. Where fiscal adjustment is needed, exchange rate adjustment can help alleviate possible adverse growth impacts.** As discussed above, many small states require sustained fiscal adjustments to stabilize public debt ratios. In these cases, the withdrawal of aggregate demand can undermine growth and may involve difficult sectoral adjustments. Where fiscal adjustment is paralleled by exchange rate adjustment, the associated improvements in competitiveness may help mitigate adverse growth effects. Thus, in general, exchange rate and fiscal adjustments are more effective when pursued together, preferably alongside structural reforms. Ongoing analysis is examining the impact of fiscal adjustments on external balances and on output, and the impact of country size, if any, on these outcomes.<sup>32</sup> The October 2008 IMF *World Economic Outlook* (IMF, 2008) concluded that, in high-debt situations, fiscal tightening had positive effects for confidence, so that output effects were significantly mitigated; openness appeared to play a relatively minor role in the transmission channel. Thus, as with the role of size in the effectiveness of exchange rate adjustments, many other factors influence the efficacy of fiscal adjustments.

**49. Where small states prefer to avoid nominal exchange rate adjustment, the required macroeconomic and structural reform effort would likely be demanding.** To achieve an “internal” devaluation, small states would need to reduce domestic wages and prices relative to competitors through a combination of tight macroeconomic policies, adjustments to public sector wages, and steps to increase the flexibility of product and labor markets. In many cases, tight macroeconomic policies may include the fiscal adjustment needed to address high debt burdens. As noted above, macroeconomic tightening can have adverse implications for growth and jobs. Improvements in

<sup>31</sup> Worrell (2012) notes that “the responsiveness of wages tends to be the critical factor” in determining whether a depreciation has medium-term effects.

<sup>32</sup> Endegnanew and others (2012) conclude that fiscal policy in small states has little effect on the current account, beyond its direct impact on import demand. On a more positive note, Blake (2012) finds very low fiscal multipliers in the case of Jamaica and notes that other studies have reached similar conclusions in the case of high openness.

competitiveness may take time to achieve, especially where nominal reductions in prices and wages are needed. To limit the burden of internal devaluation, challenging structural reforms may be needed to facilitate the adjustment of wages and prices and to strengthen growth prospects, including through a better business climate.

### C. Challenges in the Financial Sector

**50. Small state financial sectors have not yet developed adequately to play their full role in managing volatility and fostering growth.** Financial access allows households to smooth consumption, tempering the impact of volatility, while increasing efficiency in the allocation of saving to investment and thus fostering growth directly. While some indicators point to small state financial sectors being larger, this is heavily driven by the presence of off-shore financial centers (OFCs) in more than half of small states, with domestic indicators of financial access often remaining low (Figure 15).<sup>33</sup>

**51. The low availability and high cost of credit reflects macroeconomic volatility, limited financial infrastructure and oversight, and concentrated market structures.** Real lending rates are higher than in non-small states and tend to be associated with higher levels of NPLs, volatile inflation rates, and higher cost-to-income ratios, reflecting both low banking sector efficiency and high structural costs.<sup>34</sup>

**52. At the macroeconomic level, output volatility and country risk keep interest rates high.** In the Pacific Island Countries, this may reflect susceptibility to shocks that affect both growth and inflation (PFTAC, 2010). High public debt, as in many Caribbean countries, can lead markets to assign high sovereign risk that can also hamper financial development. High policy interest rates and floors in deposit rates (sometimes used to defend overvalued exchange rates) contribute to high lending rates.

**53. Inadequate financial infrastructure hinders lenders' processes and keeps credit risk elevated.** In a number of small states, legal frameworks deliver little protection of creditor rights, while absent or ineffective collateral registries for real estate and other secured assets limit creditor ability to enforce claims, a key component of financial development (Yang and others, 2011).<sup>35</sup> Supervisory regulatory frameworks often fall short of international standards and, in most small states, the lack of credit report bureaus is an important source of credit risk.

**54. Limited oversight of banking activities in many small states has also contributed to high credit risk and low asset quality.** Small states frequently suffer shortages of qualified personnel and have understaffed supervisory agencies, which, at times, have overlapping mandates. Recent experience in the ECCU highlights the importance of consolidated supervision of conglomerates and

<sup>33</sup> Financial institutions in OFCs typically serve nonresidents.

<sup>34</sup> Steps to strengthen monetary transmission mechanisms could help in macroeconomic management. Deeper financial markets could strengthen monetary policy transmission through interest rate and credit channels and, in deeper and more sophisticated markets, through asset prices and balance sheet effects.

<sup>35</sup> See the Asia-Pacific background paper and the 2011 Article IV reports for the Bahamas, Belize, and Tonga.



the need to monitor cross-border activities effectively. Several FSAP assessments have evidenced significant supervisory forbearance and stressed the need for stronger surveillance, especially in small states with systemically-important OFCs.<sup>36</sup> However, effective supervision of a large, open, and heavily foreign-owned financial sector can be a particular burden. Supervisory complacency and politically-connected lending, perhaps rooted in small size, has led to low asset quality. While reported capital-adequacy ratios have remained within regulatory limits, weaknesses in loan classification and low provisioning standards can lead these ratios to be overstated.<sup>37</sup>

**55. Concentrated market structures in shallow banking systems have hindered competition and the deepening of financial services.** Despite very active foreign participation, small state banking sectors remain very concentrated, contributing to persistently high spreads between lending and deposit rates and hampering investment and financial development. Financial innovation and improvements in cost efficiency appear to have been constrained by oligopolistic markets.

**56. Increased financial connectedness presents new challenges.** Domestic credit cycles appear to have become more closely linked to international markets, particularly in small states with OFCs. Partly as a result, some Caribbean and Pacific countries experienced high credit growth in the run up to the global financial crisis. As small state financial sectors are mostly deposit funded, they were relatively insulated from the wholesale funding shock in 2008. However, the subsequent tightening of global credit standards was transmitted from parents to subsidiaries, and resulted in significant slowdown in credit growth locally, even where domestic monetary conditions were loosened. Deteriorating credit quality underscored the inadequacy of information sharing, practical difficulties in resolving insolvent foreign financial institutions, and other limitations in the home-host supervisory framework.

**57. Small states' commercial banks have often provided a captive market for government financing—linking financial sector soundness closely to fiscal sustainability.** In some highly-indebted Caribbean countries, for example, commercial banks and non-bank financial institutions hold two-thirds of domestic public debt. The high concentration of financial institutions' portfolios in domestic sovereign debt partly reflects low diversification in financial securities markets. This can be particularly worrisome in the context of large sovereign debt burdens and a deteriorating outlook for fiscal sustainability, which would increase the likelihood of a sovereign restructuring. Local regulatory frameworks that require greater portfolio diversification of all financial sector intermediaries, including through international securities, could help to avoid excessive exposure to the local sovereign and enhance systemic stability.

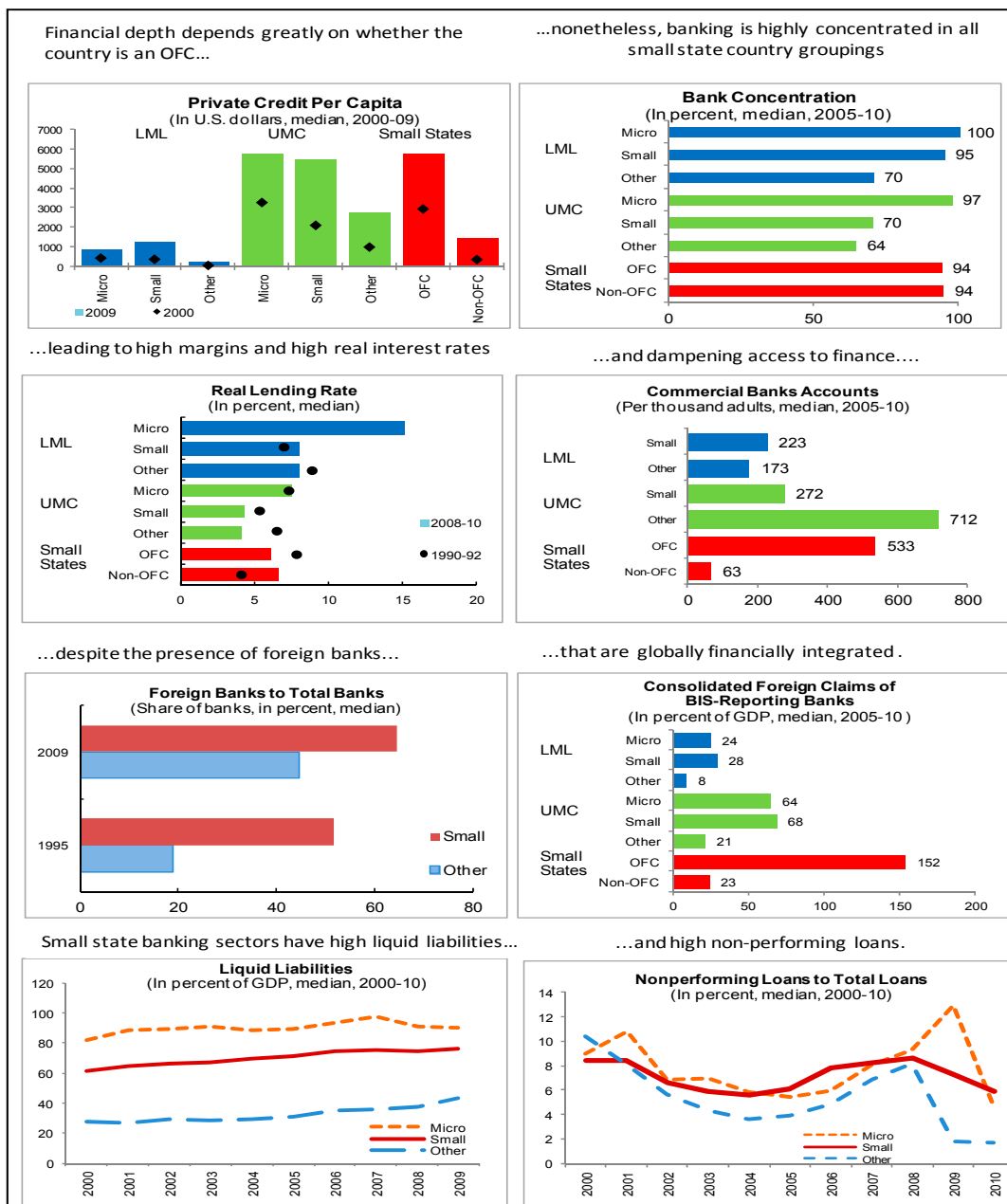
**58. Similarly, the dominance of public sector issues in securities markets offers little scope for private sector financing.** The heavy public sector presence in shallow securities markets crowds

<sup>36</sup> Examples are the [ECCU FSAP](#) (IMF Country Report No. 04/293), [Belize FSAP](#) (IMF Country Report No. 04/373), and [Barbados FSAP](#) (IMF Country Report No. 09/64).

<sup>37</sup> For example, the ECCU FSAP found that while banks report risk-weighted ratios well above the minimum requirement, asset values do not accurately reflect actual recovery rates.

out private sector financing. In addition, low liquidity in secondary markets for government securities scrambles the informational content of interest rates signals and impedes the effective use of government yield curves as benchmarks. Reducing fiscal deficits and overall debt burdens should be the priority in highly-indebted small states; in addition, where consistent with debt sustainability considerations, governments could shift more of their debt issuance to international markets and free up additional domestic resources for private sector lending, also enhancing the quality and transparency of interest rate signals in the economy.

**Figure 15. Small State Financial Sectors**



**59. Financial sector development poses several challenges.** Large, concentrated financial sectors may pose stability risks to the economies. Enhancing the legal and supervisory infrastructure and—in many cases—reducing domestic public debt are common needs across small states. Each of these would help to set the stage for supporting financial stability and promoting greater competition, encouraging new entry and the adoption of new technologies, leading to greater access to a wider variety of financial services at lower costs.

## D. Natural Disasters: Macroeconomic Impact and Policy Implications

**60. The macroeconomic impact of natural disasters can be felt through several channels.**<sup>38</sup> Loss of life, displacement, and damage to infrastructure and other physical assets often imply an immediate economic disruption, with contractions in output and exports. Disaster-related expenditures (for social needs and rebuilding) and abrupt declines in fiscal revenues lead to a deterioration in the fiscal position, and increased imports affect the balance of payments. While the macroeconomic policy response should be tailored to a country's specific circumstances, having ample buffers (including official reserves, low debt levels, and strong fiscal and external positions), effective insurance mechanisms, and reliable access to prompt financing on terms consistent with stability considerations will reduce the need for policy adjustments.

**61. Preparedness in several specific areas can help small states to reduce macroeconomic vulnerability by strengthening their disaster risk mitigation and responsiveness.**<sup>39</sup> In view of absent or low insurance penetration for natural disasters in developing countries, fostering resilience *ex ante* requires (i) identifying and integrating natural disaster (and other) risks into macro frameworks, to determine needs for self-insurance and outside insurance, as well as contingent spending needs; (ii) ensuring sufficient fiscal space and flexibility within fiscal frameworks to help redeploy spending rapidly; (iii) creating sufficient external space to help mitigate potential BoP shortfalls; and (iv) exploring how to promote insurance coverage. Response efficiency *ex post* requires (v) improving transparency to ensure effective use of disaster assistance and limit public contingent liabilities; (vi) strengthening coordination among multilateral institutions, donors, the authorities and civil society organizations, particularly where administrative capacity is limited; (vii) using reconstruction to pursue growth-enhancing structural reforms; and (viii) preventing a weakening of external competitiveness.

### External support

**62. The Fund assists members in addressing natural disaster and other macroeconomic shocks through emergency financing, policy support, and technical assistance (TA).** Several financing instruments are available, both concessional and nonconcessional.<sup>40</sup> The Fund also offers relevant policy advice as part of its regular bilateral surveillance or in a program context. In addition,

<sup>38</sup> See, for example, Melecky and Raddatz (2011).

<sup>39</sup> Recent staff work in this area includes IMF-World Bank (2011) and Laframboise and Loko (2012).

<sup>40</sup> Recent reforms seem to have increased small states' use of emergency financing facilities (Section V).

complementary TA can support capacity building to implement comprehensive macroeconomic policies.

**63. The use of market-based insurance instruments against natural disasters remains limited in developing countries, despite some positive developments** (IMF-World Bank, 2011). The most prominent capital market instruments currently available for weather- and disaster-related risks are catastrophe bonds, exchange-traded catastrophe options, catastrophe swaps, and weather derivatives. However, use by LMLs and UMCs is often limited by a lack of familiarity, high costs, low technical capacity, and shallow national insurance markets. Where they have been developed, regional insurance markets may help.

**64. Countries susceptible to natural disaster shocks are increasingly engaging in regional initiatives to spread risks, with support from the international community.** Such initiatives are most advanced in the Caribbean. The Eastern Caribbean Central Bank (ECCB) uses a fiscal reserve account of contingency funds to assist member countries facing economic difficulties, including those caused by natural disasters. The World Bank and the Caribbean Community (CARICOM) have established a Caribbean Catastrophe Risk Insurance Facility (CCRIF), a multi-country risk pool and insurance instrument to develop parametric policies backed by both traditional and capital markets. Finally, in 2009, CARICOM revamped its post-disaster support mechanisms for its member countries and created the Caribbean Disaster Emergency Response Agency (CDERA) to coordinate its inter-regional supportive network of independent emergency units.

## E. Aid to Small States

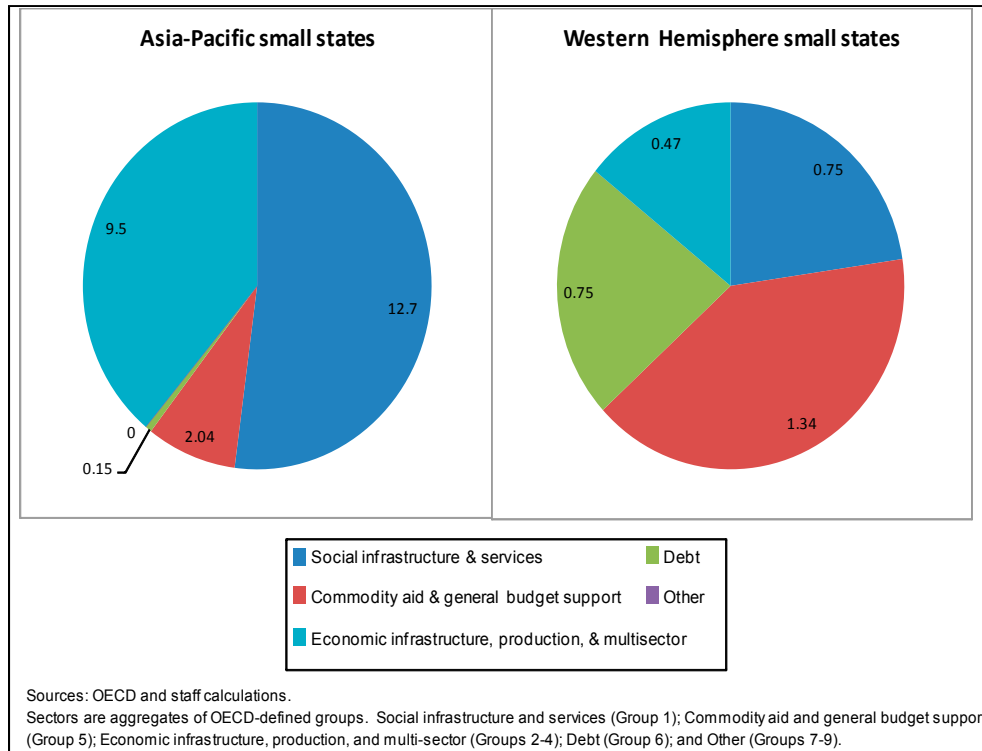
**65. In the right policy context, high levels of aid have the potential to lift growth in small states.**<sup>41</sup> Apart from those in Sub-Saharan Africa, small states receive more aid than their larger counterparts, whether measured against GDP or on a per capita basis (Appendix Table 6). Aid inflows are greatest among the Asia-Pacific micro states. Similar to the experience in larger states, as compared to the 1980s and 1990s small state aid inflows have declined significantly relative to GDP; they have, however, been broadly maintained or fallen more modestly on a per capita basis. These trends aside, the relatively high degree of volatility in aid to small states, noted earlier, has likely reduced its effectiveness. Different factors behind aid volatility (e.g., uneven project implementation in recipient countries, or budget conditions in donor countries) have different policy implications, and this topic warrants further study.

**66. Sectoral aid patterns across the full group of small states broadly mirror those for larger countries.** Reflecting to some extent the different situations in the Asia-Pacific and the Caribbean small states, and the involvement of different aid providers, the sectoral composition of aid in these regions varies considerably (Figure 16). In particular, Western Hemisphere small states have received

<sup>41</sup> Aid can promote sustained growth if used to support the right policies and provided effectively (Favaro and Peretz, 2008, and World Bank, 2006). Studies also point out, however, that in small states with limited government capacity the challenge of dealing with multiple aid agencies is even greater than in larger countries.

the bulk of aid as budget support and debt relief, while in the Asia-Pacific the composition is tilted much more toward project support.

**Figure 16. Aid Composition, by Region and Sector, 2006–10**  
Asia-Pacific and Western Hemisphere Small States; percent of GDP



## V. IMF ENGAGEMENT WITH SMALL STATES

*The average cost of Fund surveillance, program engagement, and TA and training is lower for small states than their larger peers. For surveillance, this reflects extended consultation cycles for many small states. Spending comparisons in all cases are much more favorable when weighted by economic size or population. Recent reforms seem to have contributed to small states' increased use of Fund facilities.*

**67. The Fund engages with small developing members in several broad areas.** This section draws on internal data to provide comparisons with the Fund's engagement with larger members—taking account, where appropriate, of income levels and program status.

## A. Surveillance and Staffing

**68. Country authorities have raised various questions in the broad area of surveillance and staffing.** These have included the adequacy of staffing and turnover rates on small state missions, the frequency of Fund missions, and the tailoring of key analytical tools to the needs and characteristics of small states.

**69. The analysis in the paper draws on three main sources.** The new Analytical Costing and Estimation System (ACES) provides estimates of the Fund’s operational spending on individual countries, which can be broken down into such components as surveillance, TA and training, and UFR, and is the most comprehensive data regularly available in this area.<sup>42</sup> A database coordinated by HRD and maintained by area departments provides information on desk staffing, including turnover, but because of gaps and inconsistencies is problematic to use for analysis.<sup>43</sup> An internal *Survey of Fund Small State Mission Chiefs* provides information on staffing, mission participation, and in-country representation, but its role in this area is limited somewhat by the absence of comparable information for larger countries.

**70. Excluding those with a Fund arrangement, about a quarter of small states are on a 24-month Article IV consultation cycle.**<sup>44</sup> This compares to about two percent of the larger countries. (The use of extended consultation cycles is especially common among the Pacific Islands; some two-thirds of Asia-Pacific small states are currently on extended cycles.) The figures on staffing compiled from the *Survey of Small State Mission Chiefs* confirm a somewhat less intensive level of surveillance engagement.

- Most non-program small state country teams include a single area department desk economist, which often (and particularly for micro states) is shared with another country team. About half of small states have mission chiefs at the A14 (“senior economist”) grade, with most others at the A15 grade.
- Economists from one or more functional departments participate in area department missions for about half of small states (typically those with programs). About half of small states are covered by Fund Resident Representatives (often shared with other countries).
- Overall, two-thirds of small state mission chiefs (and half of micro state mission chiefs) consider that work on their country is “similarly staffed” compared to other countries with a similar work

<sup>42</sup> *The Analytical Costing and Estimation System (ACES): Costing the Fund’s Outputs*, November, 2012.

<sup>43</sup> This database is currently being enhanced and made easier to use.

<sup>44</sup> Beginning with the *1997 Biennial Review of Surveillance*, the use of extended consultation cycles with some members has been motivated by a desire to free up the limited resources of both the Board and staff—including, more recently, to address the demand for cross-country work in support of bilateral surveillance (*Modernizing the Surveillance Mandate and Modalities*, March 2010, p. 19).

load. Others consider that they are more tightly staffed. Only about half consider Fund representation in-country or in-region to be adequate.

- The available data on mission chief and desk economist tenure maintained by area departments have important gaps and inconsistencies. Subject to this caveat, they do seem to suggest particularly rapid turnover on micro state desk assignments, though not necessarily for other (non-micro) small states.

**71. The ACES data give a similar picture.** Table 4 provides average annual operational spending over FY 2011 and FY 2012, by country grouping and by area of operations (surveillance and UFR; TA and training are discussed below). UFR-related spending varies considerably across the country groups, being much lower in small states (overall) and particularly in micro LMLs. Surveillance-related spending is lowest on micro UMCs and on micro and (other) small LMLs (probably reflecting the frequent use of 24-month cycles, sometimes because of program status). Table 5 provides average grade levels by country grouping and area of operations. It suggests that there is little difference in grade level of staffing for UFR cases, but more differences in surveillance-only countries—where missions to small and, especially, micro states have the most junior staff.<sup>45</sup>

**Table 4. IMF Annual Operational Spending, by Country Group, FY 2011–12**

	In thousands of U.S. dollars				
	Surveillance	UFR <sup>1/</sup>	Technical Assistance		Training
			Fund-provided	All	
O-UMC	757.6	870.9	138.4	268.2	23.5
S-UMC	526.0	433.6	183.5	306.7	5.5
M-UMC	218.1	469.7	60.1	188.0	0.1
O-LML	432.2	1,005.0	205.5	497.2	7.4
S-LML	292.2	548.3	93.3	211.2	2.4
M-LML	187.7	235.0	39.1	79.2	0.2

Source: IMF Analytical Costing and Estimation System (ACES).  
1/ Includes only countries with programs.

**Table 5. IMF Average Staff Grade, by Country Group and Operations Area, FY 2011–12**

	Surveillance	UFR	Fund-provided TA
Other	14.0	13.9	13.9
Small	13.4	13.7	13.4
Micro	13.2	13.7	13.8

Source: IMF Analytical Costing and Estimation System (ACES).

<sup>45</sup> Average grade levels for Table 6 were calculated on the basis of the cost shares of the different grades.

**72. Small state mission chiefs consider that the Fund’s analytical tools and frameworks are generally well tailored to the needs of small states.** Few identified a need to better tailor tools such as the safeguard assessments, ROSCs, statistical standards, methodologies for estimating potential or trend GDP, or for thinking about optimal monetary and exchange rate policy regimes. However, many did express interest in having additional flexibility to tailor exchange rate assessments and DSAs to the circumstances of small states; these views were strongest among micro state mission chiefs. Interest in tailoring exchange rate assessment tools may reflect small states’ current account variability, and the importance of remittances in many small states. Interest in tailoring DSAs may reflect a sense that complex DSA templates complicate discussions with small state authorities, who typically have broad responsibilities and are not specialized on debt issues.

## B. Program Design and Financial Support

**73. Beginning on the concessional side, several recent changes to the Fund’s financing instruments are of particular interest to small states, given their higher volatility.** For PRGT-eligible countries, prior to 2009 the Fund’s concessional financing toolkit had important gaps with respect to flexible short-term financing, a precautionary instrument, and flexible emergency financing.<sup>46</sup> Substantial reforms in 2009 addressed these gaps (along with other reforms) through the creation of the Standby Credit Facility (SCF), which can be used on a precautionary basis, and the Rapid Credit Facility (RCF), which provides rapid financing to meet urgent BoP needs, broadening the scope of emergency assistance. Support under the RCF is provided as an outright disbursement, without explicit program-based conditionality or reviews.

**74. Nevertheless, an important gap remained for non-PRGT eligible members until 2011.** The Fund still lacked a well-tailored mechanism to provide emergency assistance under the GRA, leaving non-PRGT eligible members with urgent financing needs to seek support under an SBA—sometimes despite challenges in program implementation capacity. The creation of the Rapid Financing Instrument (RFI) in 2011 provides for rapid financing to address urgent BoP needs arising from a variety of circumstances, including natural disasters and shocks to terms of trade and export demand, with provisions similar to those for the RCF. It is suited to situations where the financing and adjustment needs are transitory and limited (due, for example, to a temporary shock), or where an upper credit tranche (UCT)-quality economic program is precluded by the member’s limited policy implementation capacity or by the urgency of the BoP need.

**75. Small states have begun to use Fund financing instruments more actively in recent years, with the increased use of emergency assistance especially prominent.** During 2000-08, small states used Fund financing instruments much less frequently than did larger countries. This was most evident with respect to the use of non-concessional (GRA) facilities, but small PRGT-eligible countries were also less likely to use PRGT financing instruments than were their larger peers (Table 6).

<sup>46</sup> See [Review of Facilities for Low-Income Countries](#) (July 2012). These gaps contributed to PRGT-eligible members turning to non concessional facilities.



There has, however, been a noticeable increase in small states' use of Fund financing since 2009. While the global financial crisis is a factor, the more dramatic increase in use by PRGT-eligible small states suggests that reforms to the Fund's concessional instruments and related policies may also have played a role (see below).

**76. Apart from the frequency of use, other aspects of program engagement for small states are broadly similar to those for larger Fund members.**<sup>47</sup> Median annual access per program year is broadly the same under the GRA, while PRGT-eligible small states had somewhat higher PRGT access.<sup>48</sup> Both under the GRA and under the PRGT, program objectives and program instruments for small states were broadly aligned with those for larger countries, although small state GRA-supported programs were less likely to use pro-growth program instruments (Appendix Figures 7 and 8). Areas of structural conditionality and numbers of structural conditions for small states also aligned closely with those for larger countries. Perhaps due to implementation capacity, however, under the PRGT small states do seem to have experienced more frequent program interruptions and more uneven implementation of structural conditions than did larger members.

**Table 6. IMF Lending Requests, by Country Group, 2000–11<sup>1/</sup>**  
(Share of country-years with a lending request, percent)

	GRA		All PRGT <sup>2/</sup>		UCT PRGT		Non-UCT PRGT <sup>3/</sup>	
	2000-08	2009-11	2000-08	2009-11	2000-08	2009-11	2000-08	2009-11
Small	3.4	6.8	10.5	26.3	5.8	12.3	4.7	14.0
Other	11.5	18.5	18.6	19.8	15.9	14.7	2.8	5.1

Sources: IMF FIN Statistics.  
 1/ Approved program requests. Blend-programs are counted both in GRA and PRGT.  
 2/ Using the definition of PRGT eligible countries as of January 2012. Graduates are classified as EM in earlier years.  
 3/ Includes ENDA, EPCA, ESF-RAC and RCF.

## C. Capacity Building

**77. The IMF contributes to capacity building in small states through its engagement in technical assistance (TA) and specialized training of country officials.** Most of the TA and training activities provided by IMF staff and Fund-contracted experts in member countries are directed at supporting members' management of macroeconomic and financial policies and enhancing their resilience to adverse shocks.

<sup>47</sup> This paragraph pertains to lending facilities only and excludes the PSI. The discussion of program objectives and conditionality excludes non-UCT facilities, such as emergency assistance, and follows the methodology in the [2011 Review of Conditionality](#). Figures refer to 2000-11.

<sup>48</sup> Specifically, the median small state using GRA facilities had annual access equivalent to 130 percent of Fund quota during 2000-11; this compares to 133 percent among larger countries. The median small state using PRGT (concessional) facilities had average access equivalent to 30 percent of quota, compared to 21 percent among larger countries. During this period, program duration for small states was nearly identical to that for larger countries.

**78. A comparison of the volume of TA provided to small states with that of larger countries depends heavily on the metric used.** On a “per country” basis, small LMLs receive considerably less TA than do larger LMLs; small UMCs, in contrast, receive similar amounts and (most recently) more TA than their larger comparators. When TA provision is measured relative to population, literacy ratios (a proxy for absorptive capacity), or income, small states receive levels of capacity building that are in line with or above those of their larger comparators—both with respect to TA and to country officials’ participation in Fund-administered training courses (Tables 7 and 8).<sup>49</sup>

**79. Some generalized trends in the areas of Fund provision of capacity building are also notable in small states.** An increase in TA on fiscal issues is particularly marked in small UMCs, as the TA resources spent after 2007 are about four times those in the preceding period (Appendix Figure 9). High domestic debt burdens in small countries and high fiscal deficits appear to be the main drivers of the increased demand in the area.

**Table 7. IMF TA Provision, by Country Group, 2001–11  
(annual average)**

	Technical assistance provided (person years) relative to:							
	Secondary students (millions) <sup>1/</sup>		Persons (millions)		GDP		No. of countries	
	2001-09	2008-10	2001-10	2009-11	2001-10	2009-11	2001-10	2009-11
O-UMC	0.3	0.4	0.0	0.0	5.8	4.1	0.4	0.4
S-UMC	19.4	63.7	2.0	4.2	275.0	580.9	0.4	0.9
O-LML	1.2	1.1	0.1	0.1	95.3	60.6	0.8	0.9
S-LML	13.2	7.3	0.8	0.6	649.0	362.7	0.5	0.3
Micro	25.9	96.5	3.2	8.5	589.4	1451.7	0.3	0.7

Source: ICD data and staff estimates.  
1/ Excludes Haiti, Kosovo, Nigeria, Panama, Turkmenistan, and Zimbabwe due to missing data.

<sup>49</sup> The patterns of TA provision measured in person-years are not directly comparable to the budgetary cost estimates from ACES, but the two perspectives provide a similar picture. The ACES data do help to illustrate the importance of donor-financed TA for the poorest countries (whether or not small) and the micro states.

**Table 8. IMF Training, by Country Group, 2008–12**  
(annual average)

	Participant weeks of IMF-provided training relative to:			
	Secondary students (millions) <sup>1/</sup>	Persons (millions)	GDP	No. of countries
	2008-10	2008-11	2008-11	2008-12
O-UMC	79.3	6.1	1.3	51.3
S-UMC	2148.0	198.4	26.2	18.1
O-LML	89.1	4.5	9.2	70.6
S-LML	553.7	35.0	23.9	15.4
Micro	3328.4	237.3	35.9	13.5

Source: IMF staff estimates.

<sup>1/</sup> Due to data unavailability the following countries were not considered for the literacy index: Haiti, Kosovo, Nigeria, Panama, Turkmenistan, and Zimbabwe.

**80. Fund engagement in FSAPs and ROSCs strongly reflects the member's size.** Full FSAPs were undertaken during 2000-10 with about a quarter of small states (and no micro states), compared to about three-quarters of other LML and UMC Fund members.<sup>50</sup> Small states are also much less likely to have participated in ROSCs. Fiscal ROSCs, for example, have been undertaken in over half of larger LML and UMC members, but only about 20 percent of small states.

## VI. ENHANCING FUND ENGAGEMENT IN SUPPORT OF SMALL STATES

**81. This section suggests a number of ways in which the Fund could enhance its engagement in support of small states.** Key areas could include: (i) analytical work, (ii) policy advice and surveillance, (iii) programs, (iv) capacity building, (v) outreach, and (vi) cooperation with other institutions. Recognizing that many of the conclusions of this paper may apply also to some countries above the 1.5 million population threshold, the ideas laid out here should not necessarily be limited to the sample of 33 countries identified as "small states" for purposes of this paper.

### *Analytical work*

**82. Despite advances in understanding the challenges small states face, a continuing analytical work program on small states will remain important.** This work should ideally involve

<sup>50</sup> The data exclude regional FSAPs with BCEAO/WAEMU in 2009, CEMAC in 2007, and the ECCU in 2004.

inter-departmental collaboration, perhaps through the internal Small Islands Club. The findings could be published as working papers or Staff Discussion Notes. Possible priorities for analysis include:

- *The factors behind the relative growth underperformance of small states since the late 1990s.* Small states did not share in the improved performance of larger peers. Does this reflect a failure by small states to adopt the macroeconomic and structural reforms that have contributed to stronger, more durable growth in larger peers? Or were small states' pro-growth reforms offset by a conjunction of regional developments that have had their largest impact, coincidentally, on clusters of small states? What are the implications for small states' growth strategies?
- *The effectiveness of exchange rate adjustments in highly open small states.* Are there major differences in the exchange rate transmission mechanism that should inform policy design for small states seeking to achieve external adjustment?
- *The impact of the global financial crisis and other spillovers on small states.* What are the major transmission channels, and how do these vary across small state regions? The existing strand of work by Fund staff on particular countries and country groups would provide a strong foundation for additional work in this area.
- *Understanding potential advantages of small size.* Much of the attention in this paper has been on overcoming the obstacles associated with small size. There may be important lessons in the development experience of the highly successful small states, including in how they have exploited particular advantages.
- *Financial sector benchmarking.* Benchmarking could help to identify how a country's financial system compares to those of its peers. Diagnostics could clarify which financial services are underprovided and which sub-segments or instruments are underdeveloped.
- *Designing fiscal rules for small states.* How might fiscal rules be best tailored to use in small states, given the variability they experience in revenues and expenditures?
- *Understanding and managing high aid volatility.* What is behind the higher aid volatility observed in small states? Is there a particular role for the Fund, World Bank, or other IFIs in donor coordination or in helping small state country authorities to manage aid volatility?

### ***Policy advice and surveillance***

**83. The growth challenges facing small states should be given particular emphasis in policy advice for small states.** This would be informed by the continuing analytical work suggested above. The enhanced focus on growth could include a sectoral focus. Given the limited diversification of small states' economies, Fund staff should seek to build greater familiarity with the growth challenges facing individual production sectors (e.g., tourism, resource extraction) than might be typical for larger, more diversified states.

**84. Financial sector development could be a focal point in the Fund’s engagement with small states.** The Fund and other partners can provide policy advice, specialized TA and general training with the aim of promoting greater competition, enhancing domestic supervision and strengthening the legal framework for financial services, tailored to the challenges of small markets and limited supervisory resources. It will be important to promote further competition in ways that foster rather than detract from stability, exploiting technological advances and legal structures (such as branching) and information-sharing frameworks that allow for a reduction of credit costs. The effective implementation of international standards for financial supervision and regulation, including cooperation with host authorities, licensing financial institutions and governance, and the protection of creditor rights are also required to ensure credit risk is reduced. Through its work with standard-setting bodies, the Fund can seek to ensure that the process takes account of the special features of small states. Where fiscal positions are especially important to financial development, in view of the sovereign’s dominant role in local markets, policy advice on fiscal and debt management should take this into account.

**85. The Fund could seek to ensure that its analytical toolkit is tailored to the needs of small states.** Economic personnel in small states typically have broader responsibilities and less scope for specialization than in larger states. Building on the Fund staff’s current work on exchange rate assessments in special cases, consideration could be given to developing streamlined tools for exchange rate analysis in small states. Simplified approaches to conducting LIC debt sustainability assessments could also be considered.

### *Programs*

**86. To help small states better weather economic volatility, there may be scope to strengthen Fund financial and other support for members’ adjustment programs.** The Fund now has a wide array of financing facilities to meet small states’ diverse needs, and some refinements under consideration in the forthcoming review of PRGT facilities, if adopted, could further enhance their attractiveness to shock-affected small states.

**87. Program design should also reflect the particular needs of small states.** Given the growth challenges facing many small states and their lack of diversity, sectoral and targeted business climate reforms may be more macro-critical than for larger economies. Accordingly, in Fund-supported programs, growth-related conditionality may need to be more front-and-center for small states.

### *Capacity building*

**88. To help countries build further macroeconomic resilience, the Fund should continue to make available to small states its expertise in designing macro policies that help mitigate the impact of economic volatility.** This includes providing support for debt management and identifying solutions for high debt, and emphasizing shifting revenue sources away from (more variable) trade taxes. For countries prone to natural disaster, the strategy for deciding the relative roles of saving in

advance, borrowing, or buying insurance is important yet complex. The Fund can cooperate with the World Bank and others to best serve the country authorities.<sup>51</sup>

**89. Together with the international community, the Fund can help small states to strengthen their risk management frameworks.** This begins by assessing a country's principal fiscal and quasi-fiscal risks, and making use of existing tools such as the World Bank's Natural Disaster Risk Financing Framework and frameworks for commodity hedging strategies. The World Bank has also been instrumental in developing regional risk-pooling initiatives, such as the Caribbean Catastrophic Risk Insurance Fund (CCRIF). Together with the World Bank, the Fund should continue to provide operational and practical advice on managing asset and liability portfolios, normally through existing TA channels. More broadly, the Fund and other IFIs can draw on ideas from the recent IMF-World Bank 2011 paper on *Managing Volatility in Low-Income Countries: the Role and Potential for Contingent Financial Instruments*, many of which are particularly relevant for small states.

**90. Fund engagement should also recognize the more limited administrative capacity of many small states.** This could be addressed through sustained engagement in a number of ways:

- *Staff exchanges.* Staff expertise in small states and associated regional organizations could be fostered through staffing exchanges. The options for economists from small states to join the Fund for a limited period as special appointees could be expanded. Similarly, options could be explored for Fund staff to take secondments to work with regional small states institutions.
- *Fund coordination.* There may be scope for Fund staff to play a more active role in coordinating the involvement of other development partners in the macroeconomic sphere, perhaps through resident representative offices. This should be consistent, however, with the Fund's macroeconomic focus, and should not crowd out core activities.

### **Outreach**

**91. The analytical work agenda could help guide the Fund's engagement with small states. Findings should be discussed and validated through periodic outreach with small states authorities and other partners, possibly during seminars at the time of the Spring or Annual Meetings.** In this context, the Fund could step up its role in the Small States Forum (which it now co-sponsors, along with the World Bank). These and other outreach activities could be led mainly by IMF area departments, regional representatives, or regional TA centers. Consideration could then be given to how best to meet small states' capacity development needs, including by better targeting and integrating TA and training areas and re-assessing modes of delivery.

<sup>51</sup> See the World Bank's recent book (joint with the UN) on [Natural Hazards, Unnatural Disasters: the Economics of Effective Prevention](#) (UN-World Bank, 2010).

**Cooperation with other institutions**

**92. Support for small states will need to involve other international institutions and development partners.** The Fund will often need to work alongside financial and non-financial assistance programs managed by other development partners. In these cases, inter-agency cooperation should reflect the Fund's comparative advantage and the relative expertise of our counterparts. The World Bank and regional MDBs, for example, would tend to take the lead on sectoral themes and cross-cutting areas as climate change effects and climate-related financing. Even where others take the lead, stepped-up collaboration can help enrich the Fund's policy advice and program design. To this end, a good case can be made for joint missions, or involving World Bank or MDB staffing in Fund missions where external expertise would complement the work of the Fund.

**93. Close collaboration with other institutions would be particularly useful in identifying common solutions to shared regional challenges.** Global and regional economic integration, common regional institutions, and shared infrastructure can help small states to reduce high trade costs and other size-related disadvantages. Behind-the-border integration should be encouraged in areas such as customs cooperation, product standards, and sanitary and phytosanitary regulations. The WTO accession process and membership provide a very useful framework in these and other areas. The international community can also encourage the development of regional infrastructure, including through ongoing Aid for Trade initiatives. In many of these areas, staff could draw on experience in supporting regional institutions and regional integration among non-small states, such as with the East African Community (EAC).

**94. The Fund and other partners could also seek regional approaches to promoting financial sector development in small states.** In the Caribbean, the development of the ECCU Regional Government Securities Market (RGSM) has sought to promote cross-border issuance and secondary markets trading by integrating the existing government securities markets into a single regional market, and may provide helpful lessons as to the scope for regional solutions elsewhere and how best to design them.<sup>52</sup>

**Next steps**

**95. This paper is for Board discussion, and the next steps depend on the direction provided by the Board.** Following Board discussion, staff plans to discuss this paper and its recommendations with small states and associated development partners. Based on the combined reactions, staff could come back to the Board with draft guidelines for Fund engagement with small states. These guidelines could frame and inform the work program on small states discussed above.

<sup>52</sup> [Eastern Caribbean Currency Union](#)—*Staff Report for the 2011 Discussion on Common Policies of Member Countries*.

## Appendix. The Adverse Impact of Macroeconomic Volatility

1. A negative relationship between output volatility and growth found by Ramey and Ramey (1995) has been examined further in other studies. Hnatkovska and Loayza (2005), for example, find that a one standard deviation rise in output volatility leads to a 1.3 percentage point drop in the growth rate. Weaker growth has been associated with exchange rate volatility (under low financial development; Aghion and others, 2006), policy volatility (Fatás and Mihov, 2006) and aid volatility (Prati and Tressel, 2006). Others associate macroeconomic volatility and inequality through human capital investment (Gavin and Hausman, 1998). This literature suggests the main influences of volatility to be exogenous shocks, volatile policies, structural rigidities, and weak institutions.
2. Developing countries may face greater volatility because of larger exogenous shocks, more policy variability, and weaker policy buffers (Loayza and others, 2007). Aizenman and Pinto (2005) identify channels through which volatility has permanent effects:
  - *Weak institutions and investment channel.* Countries with weak institutions seem to be more affected by shocks of similar size. Property rights, creditor protection, contract enforcement, and financial supervision influence capital market development; incomplete or thin capital markets force firms to finance investment internally or from local banks, causing greater contraction of investment during downturns, when these sources are themselves strained.
  - *Volatility and income inequality.* Income inequality increases with the uncertainty that accompanies volatility, raising the share of households that face binding constraints on their ability to finance investment in human capital, undermining long-term growth.
  - *Procyclical fiscal policy.* Countries with weak fiscal capacity are less able to maintain broad-based tax systems, and may rely on inefficient or sensitive revenue instruments, including trade taxes. Together with expenditure rigidities, this encourages pro-cyclical fiscal policy.
3. To temper volatility and blunt its impact on growth requires strong institutions and adequate shock absorbers. The latter include deep, well-supervised financial markets, the ability to use countercyclical policies, and adequate reserve coverage. Crispolti and Tsibouris (2012) find that, even when reserve coverage is at levels normally considered adequate, island states may suffer persistent macroeconomic costs in the aftermath of an external shock.



**Appendix Table 1. Regression Results: Determinants of Growth, 1980–2010 and 1990–2010**

Variables	1980-2010				1990-2010			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Small states</i>	-0.0054 (0.0045)	-0.0059 (0.0044)			-0.0126*** (0.0043)	-0.0124*** (0.0044)		
<i>Micro states</i>			-0.0032 (0.0072)				-0.0131** (0.0067)	
<i>Remote states</i>				0.0062 (0.0088)				0.002 (0.0081)
Oil exporters	-0.0054 (0.0048)	-0.0052 (0.0048)	-0.0052 (0.0048)	-0.0049 (0.0048)	-0.015*** (0.0046)	-0.0151*** (0.0046)	-0.0154*** (0.0047)	-0.015*** (0.0048)
Oecd	-0.0087** (0.0043)	-0.0088** (0.0042)	-0.0082* (0.0042)	-0.0077* (0.0042)	-0.0094** (0.0041)	-0.0094** (0.0041)	-0.0084** (0.0041)	-0.007* (0.0041)
Initial per-capita GDP	-0.0008 (0.0006)	-0.0008 (0.0006)	-0.0008 (0.0006)	-0.0008 (0.0006)	-0.0017*** (0.0006)	-0.0018*** (0.0006)	-0.0018*** (0.0006)	-0.0017** (0.0006)
GDP volatility	-0.3539*** (0.0638)	-0.3571*** (0.0638)	-0.3566*** (0.0638)	-0.356*** (0.0638)	-0.4184*** (0.0622)	-0.4238*** (0.0621)	-0.424*** (0.0622)	-0.4243*** (0.0622)
Trade openness	0.0145*** (0.003)	0.0145*** (0.0029)	0.0139*** (0.0029)	0.0136*** (0.0029)	0.0084*** (0.0027)	0.0085*** (0.0028)	0.0076*** (0.0028)	0.0071** (0.0028)
Education	0.0169*** (0.0055)	0.0174*** (0.0054)	0.017*** (0.0055)	0.016*** (0.0054)	0.0064 (0.006)	0.0068 (0.006)	0.0059 (0.0062)	0.0027 (0.0061)
Government consumption to GDP	-0.1497*** (0.0208)	-0.1498*** (0.0207)	-0.1549*** (0.0204)	-0.1554*** (0.0204)	-0.0914*** (0.0249)	-0.0953*** (0.025)	-0.1055*** (0.0251)	-0.1084*** (0.0253)
Debt to GDP	-0.0086*** (0.0019)	0.0075 (0.0069)	0.0072 (0.0069)	0.0073 (0.0069)	-0.0089*** (0.0021)	0.0081 (0.0078)	0.0091 (0.0078)	0.0087 (0.0078)
Debt to GDP > 0.45		-0.0144** (0.0059)	-0.0141** (0.0059)	-0.0142** (0.0059)		-0.0152** (0.0067)	-0.016** (0.0067)	-0.0158** (0.0067)
Constant	0.0437*** (0.0086)	0.0404*** (0.0087)	0.042*** (0.0086)	0.0425*** (0.0086)	0.0566*** (0.0086)	0.0543*** (0.0087)	0.0572*** (0.0088)	0.0596*** (0.0088)
Observations	2711	2711	2711	2711	1741	1741	1741	1741
Standard errors in parentheses								
*** p<0.01, ** p<0.05, * p<0.1								
All regressions include a full set of regional dummies.								



**Appendix Table 3. Regression Results: Determinants of Growth Volatility, 1980–2010**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	SS&MIC	SS	MICRO	SS ISLD	SIC	PIC	CIC	SS EXP
Fuel exporters	0.708 (0.528)	0.708 (0.528)	0.761 (0.528)	0.739 (0.526)	0.738 (0.526)	0.755 (0.525)	0.736 (0.526)	0.827 (0.604)
OECD	-1.226*** (0.339)	-1.226*** (0.339)	-1.153*** (0.340)	-1.187*** (0.339)	-1.184*** (0.340)	-1.147*** (0.341)	-1.186*** (0.341)	-1.174*** (0.338)
Small States	-0.348 (0.331)	-0.348 (0.331)	0.226 (0.433)	-0.136 (0.347)	-0.108 (0.357)	0.369 (0.574)	-0.229 (0.423)	-0.101 (0.456)
Volatility ToT (goods only, weighted)	0.145*** (0.0405)	0.145*** (0.0405)	0.143*** (0.0406)	0.144*** (0.0405)	0.144*** (0.0405)	0.143*** (0.0405)	0.145*** (0.0407)	0.144*** (0.0406)
Volatility external demand	0.469** (0.160)	0.469** (0.160)	0.480** (0.160)	0.474** (0.160)	0.476** (0.160)	0.481** (0.160)	0.474** (0.160)	0.479** (0.160)
Volatility of aid-to-GNI	0.250** (0.0759)	0.250** (0.0759)	0.244** (0.0751)	0.247** (0.0762)	0.247** (0.0766)	0.244** (0.0750)	0.246*** (0.0745)	0.246** (0.0766)
Cost of climatic shocks (% GDP, cumulative)	-0.216 (0.337)	-0.216 (0.337)	-0.201 (0.337)	-0.204 (0.337)	-0.202 (0.337)	-0.206 (0.336)	-0.197 (0.336)	-0.210 (0.338)
Fiscal policy procyclicality	-0.435** (0.195)	-0.435** (0.195)	-0.422** (0.195)	-0.431** (0.196)	-0.430** (0.196)	-0.422** (0.195)	-0.427** (0.195)	-0.424** (0.196)
Constant	2.402*** (0.515)	2.402*** (0.515)	2.366*** (0.516)	2.376*** (0.516)	2.373*** (0.517)	2.369*** (0.516)	2.374*** (0.516)	2.387*** (0.522)
N	868	868	868	868	868	868	868	868
Standard errors in parentheses								
* p<0.10								
Source: Staff estimates.								
Regressions include regional dummies and are estimated with random effects. Column titles refer to the coverage of the small states dummy variable used in the regression: all small states (1); non-micro small states (2); micro states (3); island small states (4); Small Islands Club (5); Pacific Islands 6); Caribbean Islands (7); and commodity exporters (8). The fiscal policy procyclicality variable is defined as sample average of the 5 year rolling correlation between the growth rate of real GDP and the growth rate of government consumption as share of GDP.								

**Appendix Table 4. Cost and Historical Probability of Natural Disasters, 1987–2011**

	No. of countries	Cost-to-GDP <sup>1/</sup>			Freq. of extremes <sup>2/</sup>		
		Mean	Std. Dev.	Max.	Mean	Std. Dev.	Max.
All EMDC	146	0.8	2.0	14.1	10.5	12.4	76
Non-Small	114	0.5	1.1	7.8	11.1	13.3	76
Small	32	1.9	3.4	14.1	8.4	8.4	32
Micro	14	3.5	4.7	14.1	8.6	7.5	20
Island EMDC	32	2.0	3.5	14.1	12.4	10.0	32
Non-Island EMDC	114	0.4	1.0	7.8	10.0	13.0	76
Sub-Saharan Africa							
Non-Small	37	0.1	0.2	0.6	3.3	5.7	24
Small	6	0.1	0.2	0.4	4.7	6.4	16
Micro	2	0.1	0.1	0.2	2.0	2.8	4
Asia-Pacific							
Non-Small	15	1.1	1.3	5.6	28.4	20.8	76
Small	12	1.6	4.0	14.1	8.0	10.2	32
Micro	6	2.6	5.7	14.1	6.7	9.0	20
Western Hemisphere							
Non-Small	20	0.9	1.4	5.7	15.8	9.9	32
Small	12	3.3	3.6	11.1	11.7	6.9	20
Micro	6	5.5	3.9	11.1	12.7	4.7	20

Source: WHO CRED (International Disaster Database) and staff estimates.

1/ Ratio of estimated annual damage to annual GDP, averaged over the period.

2/ Share of years (in percent) with a cost-to-GDP ratio in the top decile of the sample.

**Appendix Table 5. Doing Business Indicators, by Country Group**

2012 Median Rank										
	Ease of Doing Business	Starting a Business	Getting Electricity	Registering Property	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Resolving Insolvency
O-UHC	71	85	83	68	70	82	91	91	82	84
S-UHC	74.5	67	43.5	143.5	104	32	73	73	121	78
M-UHC	74	65	30	125	104	32	74	77	119	104
O-LML	137.5	119.5	130	117.5	104	117	138.5	139.5	132.5	123.5
S-LML	119.5	122.5	105	121.5	129	133.5	75	88.5	95	144
M-LML	117	100	72	161	129	158	85	88	81	164
All EMDC	110	103	108	105	104	100	108	110	109	110
Non-Small	116	108	116	97	83	100	122	122	107	108
Small	95.5	87	70.5	132.5	116.5	82	73	85	114	129
Micro	85.5	67	57	133.5	129	40.5	81	82.5	109	143
Island EMDC	93.5	78.5	72.5	123.5	104	70	85	81.5	110	130
Non-Island EMDC	118	109	116	97	83	100	114	123	107	107
Sub-Saharan Africa	152	127.5	137	131.5	129	128	140.5	145	136	133
Non-Small	154.5	129.5	139.5	135	129	128	146	150	136	133
Small	122.5	123	105	73	129	133.5	80	76	121	119
Micro	117	108.5	108	113.5	173.5	114	82	61	132	114.5
Asia-Pacific	101	104	103	94	83	82	85	88	109	123
Non-Small	104	105	105	88	70	49	114	74	133	121
Small	98	99	78.5	126	129	99.5	66	94	77.5	131.5
Micro	106	76	63	106.5	129	137.5	81	82.5	77	143
Western Hemisphere	98	87	63.5	118	83	91	122	90.5	110.5	107.5
Non-Small	111.5	129.5	97	103	76.5	100	139.5	97.5	100.5	107.5
Small	82.5	70.5	41	148	104	32	79.5	79.5	144	119.5
Micro	71.5	64.5	20	135	104	32	79.5	81.5	142	144.5

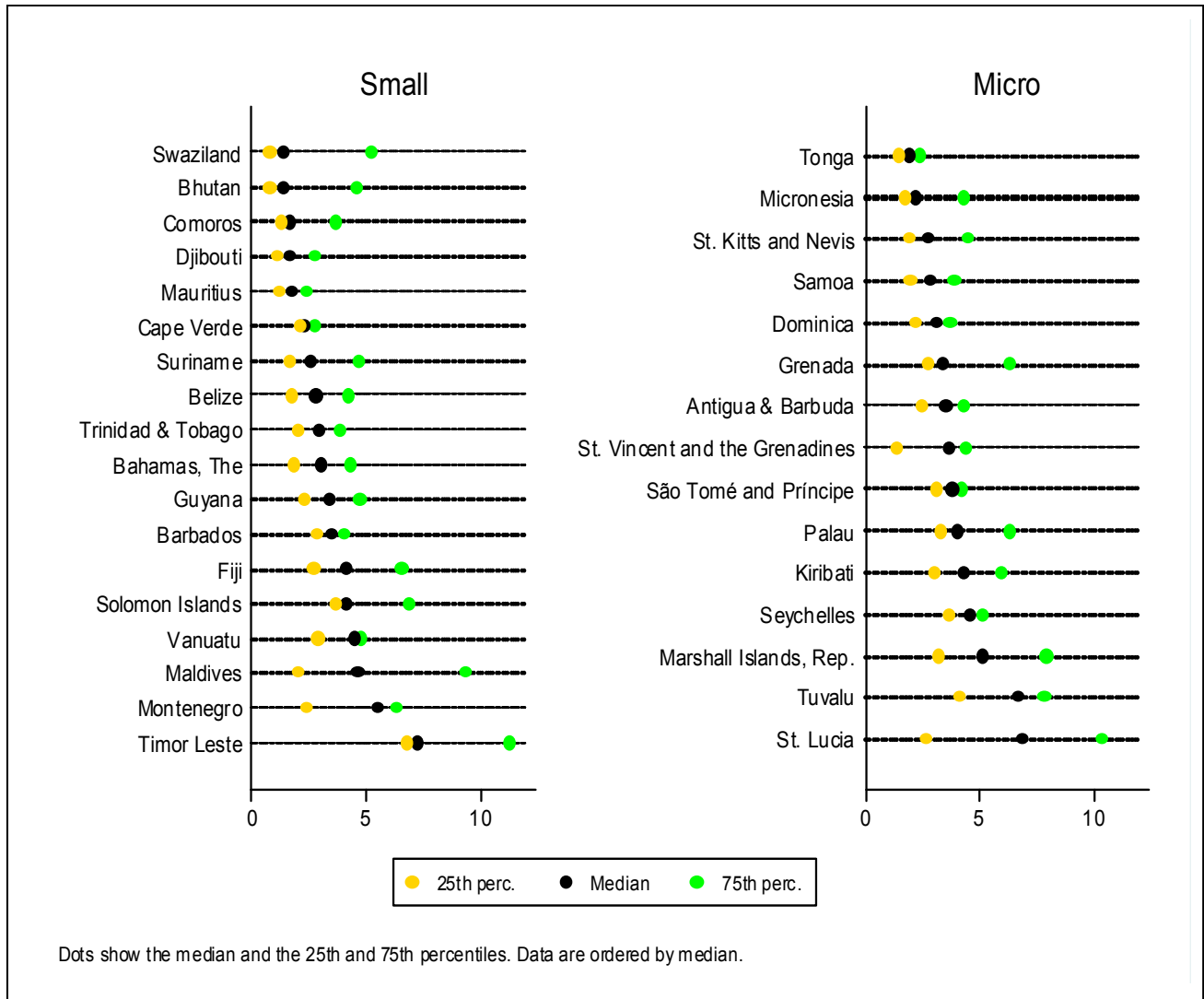
 Source: World Bank *Doing Business 2013: Smarter Regulations for Small and Medium-Size Enterprises* and staff calculations.

**Appendix Table 6. Aid Levels and Aid Volatility, by Country Group, 1980–2010**

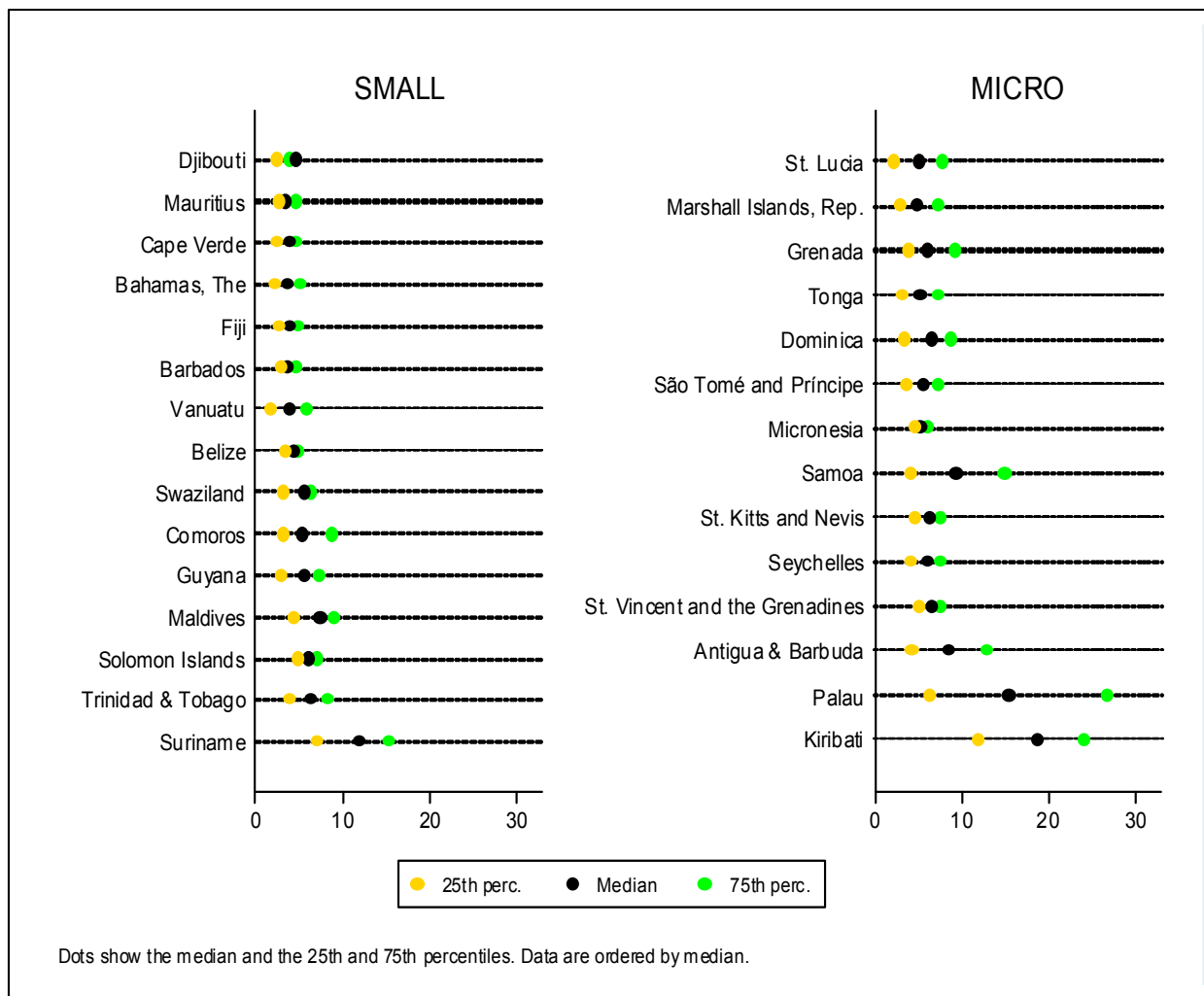
	Aid to GDP ratio (percent)			Per capita aid (constant USD)					
				Level			Std. dev.		
	1980- 2010	2000-06	2007-10	1980- 2010	2000-06	2007-10	1980- 2010	2000-10	
All EMDC	4.5	3.8	3.4	53	43	55	132	107	
Non-Small	3.6	3.5	2.6	39	31	40	85	61	
Small	7.8	7.4	6.5	188	146	187	180	160	
Micro	9.3	8.1	7.5	279	224	258	182	170	
Island EMDC	6.4	4.8	5.1	164	112	200	169	169	
Caribbean	2.9	1.3	2.0	119	151	112	154	160	
Pacific	17.3	15.1	16.7	283	215	278	164	159	
Sub-Saharan Africa									
Non-Small	10.2	9.4	9.9	61	48	59	54	47	
Small	7.5	6.6	6.9	193	114	114	218	161	
Micro	7.9	13.7	10.7	336	251	253	225	125	
Asia-Pacific									
Non-Small	1.8	2.3	1.7	18	12	11	38	32	
Small	17.8	15.1	16.7	248	235	271	157	143	
Micro	26.9	24.3	22.5	360	301	290	118	124	
Western Hemisphere									
Non-Small	0.7	0.4	0.4	22	14	16	51	50	
Small	3.2	1.6	2.4	154	114	195	161	169	
Micro	4.6	1.8	3.4	216	132	238	165	194	

Source: OECD DAC and staff calculations.

Appendix Figure 1. Volatility of per capita GDP Growth, Individual Small States, 1980–2010

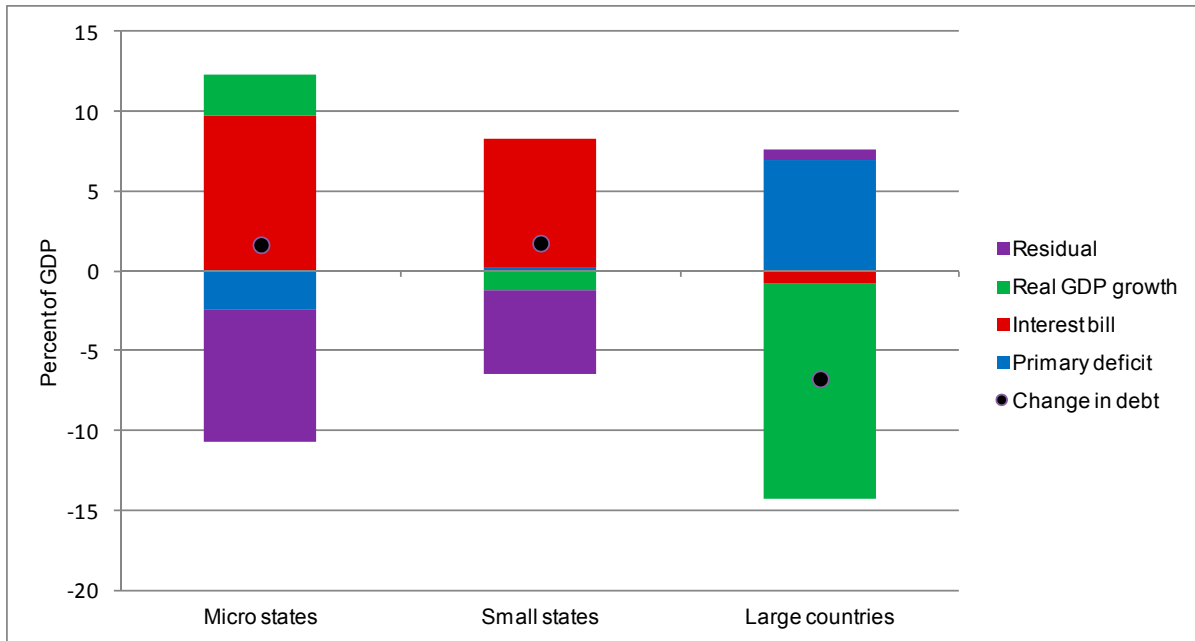


**Appendix Figure 2. Volatility of CA-to-GDP Ratio, Individual Small States, 1980–2010**

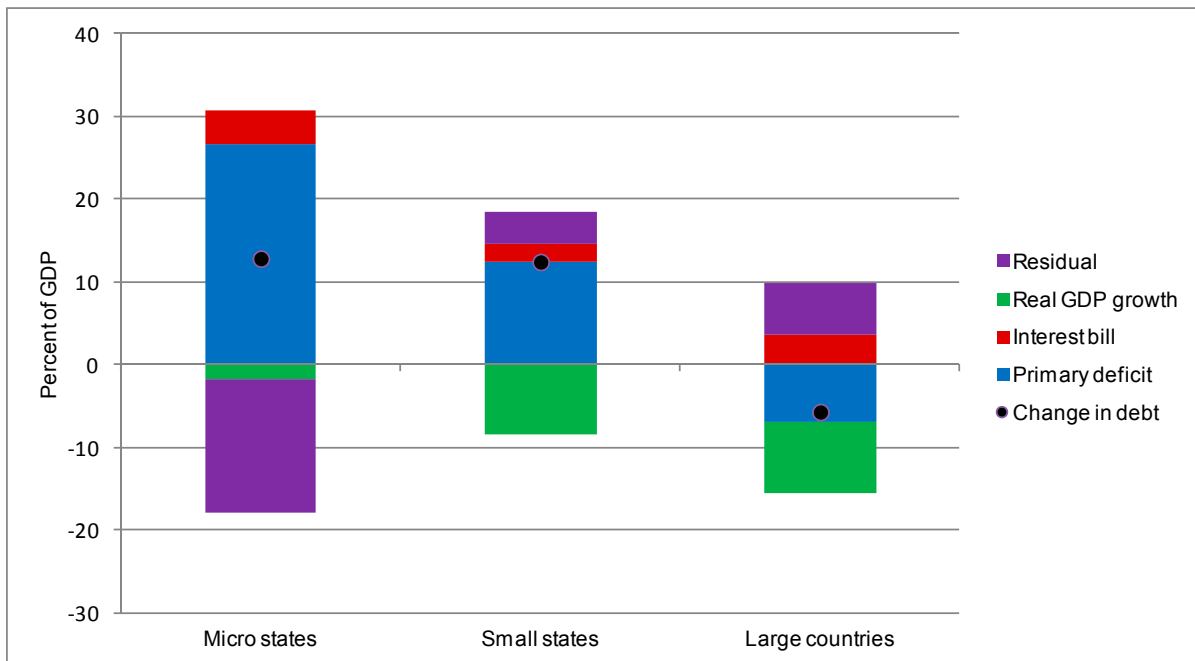




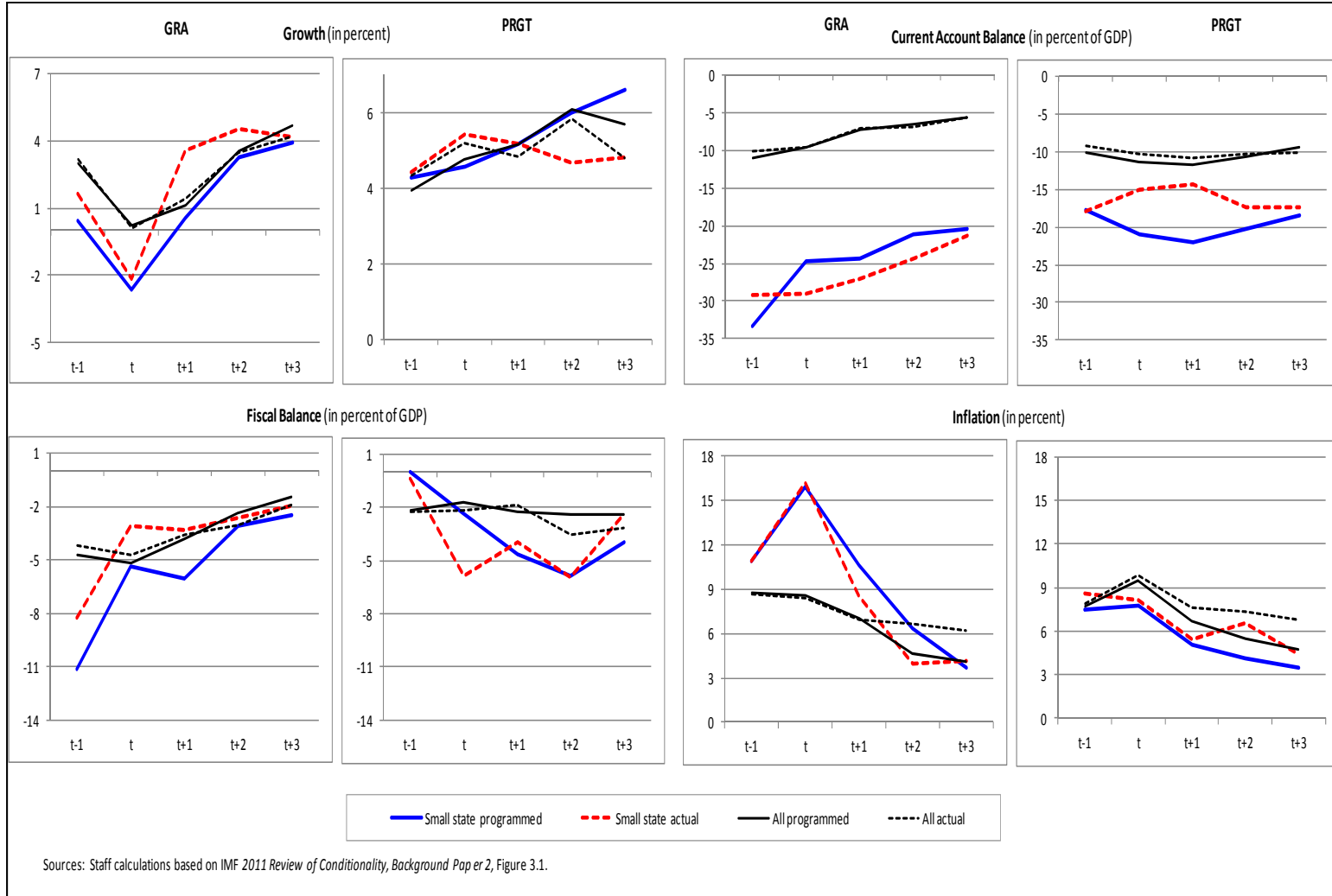
**Appendix Figure 3. Sources of Debt Accumulation, Western Hemisphere Countries, 2007–11**



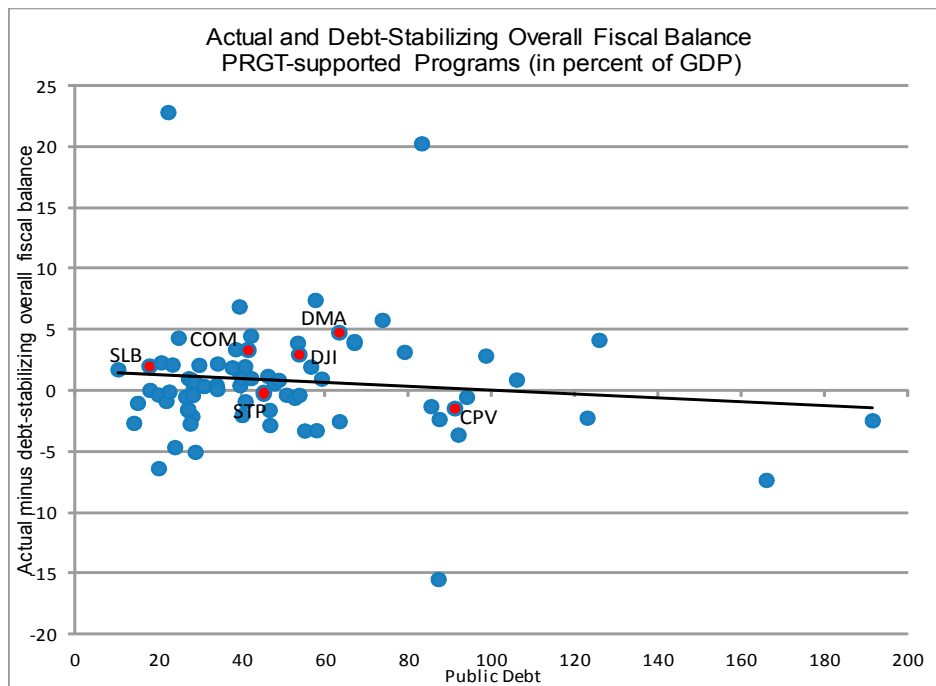
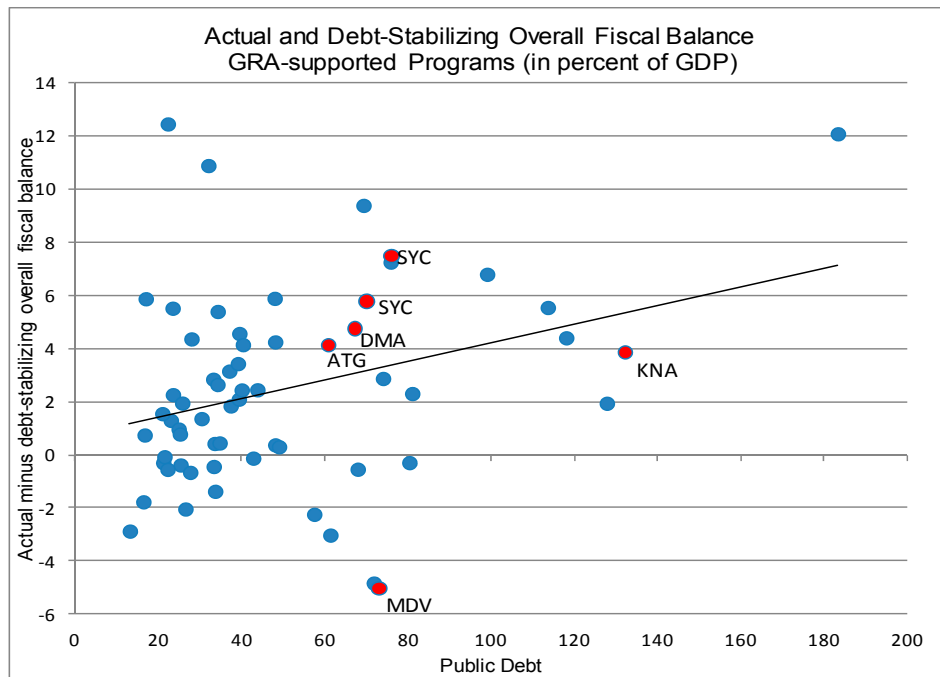
**Appendix Figure 4. Sources of Debt Accumulation, Asia-Pacific Countries, 2007–11**



**Appendix Figure 5. Macroeconomic Adjustment in Fund-Supported Programs: Small States and other Fund Members, 2002–11**

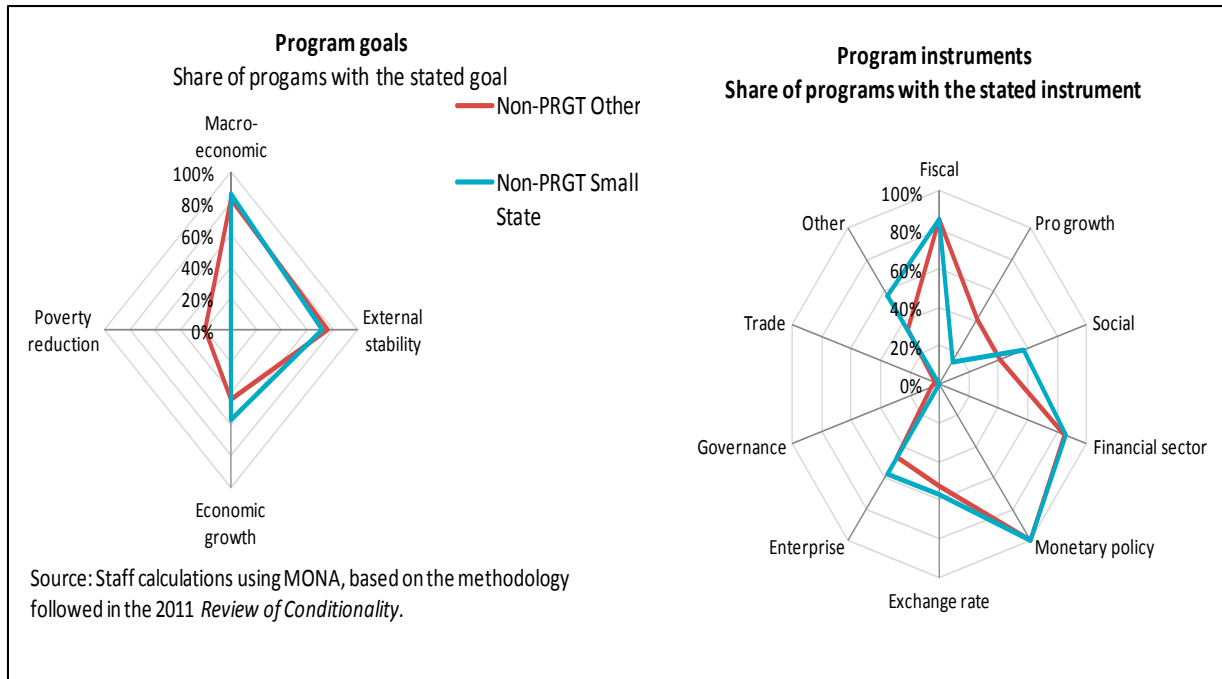


**Appendix Figure 6. Debt Dynamics in Fund-Supported Programs: Small States and other Fund Members, 2002–11**

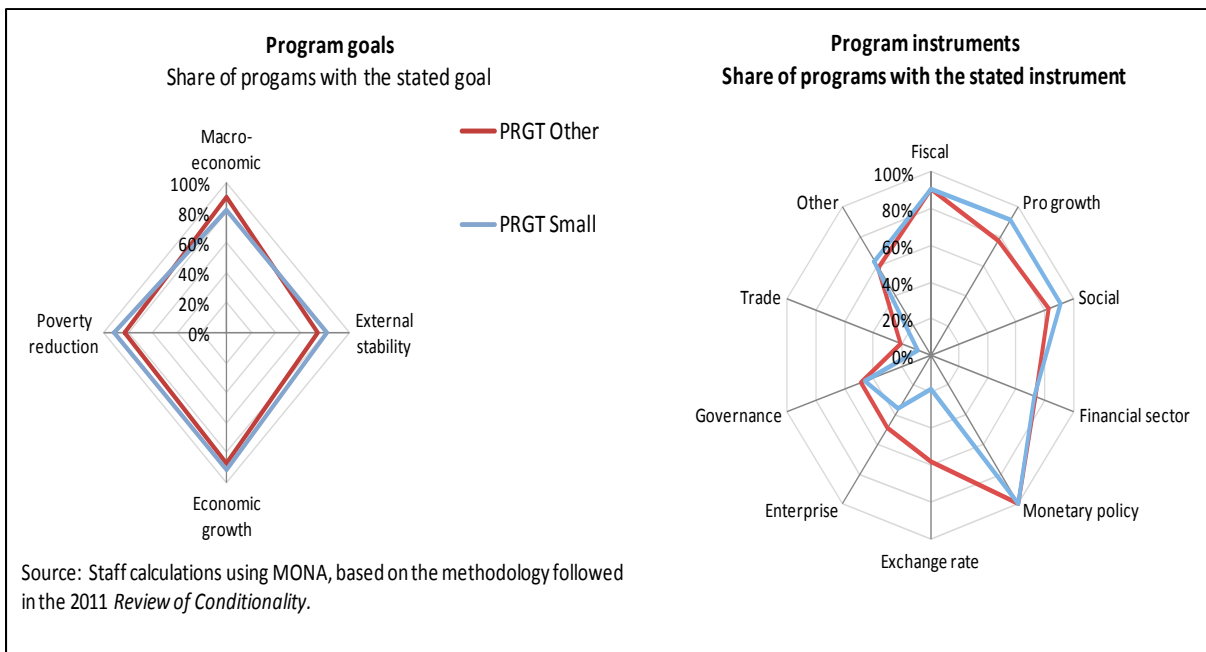


Source: IMF, 2011 Review of Conditionality Background Paper 3, Figures 5 and 12. Red denotes small states. See source for methodology.

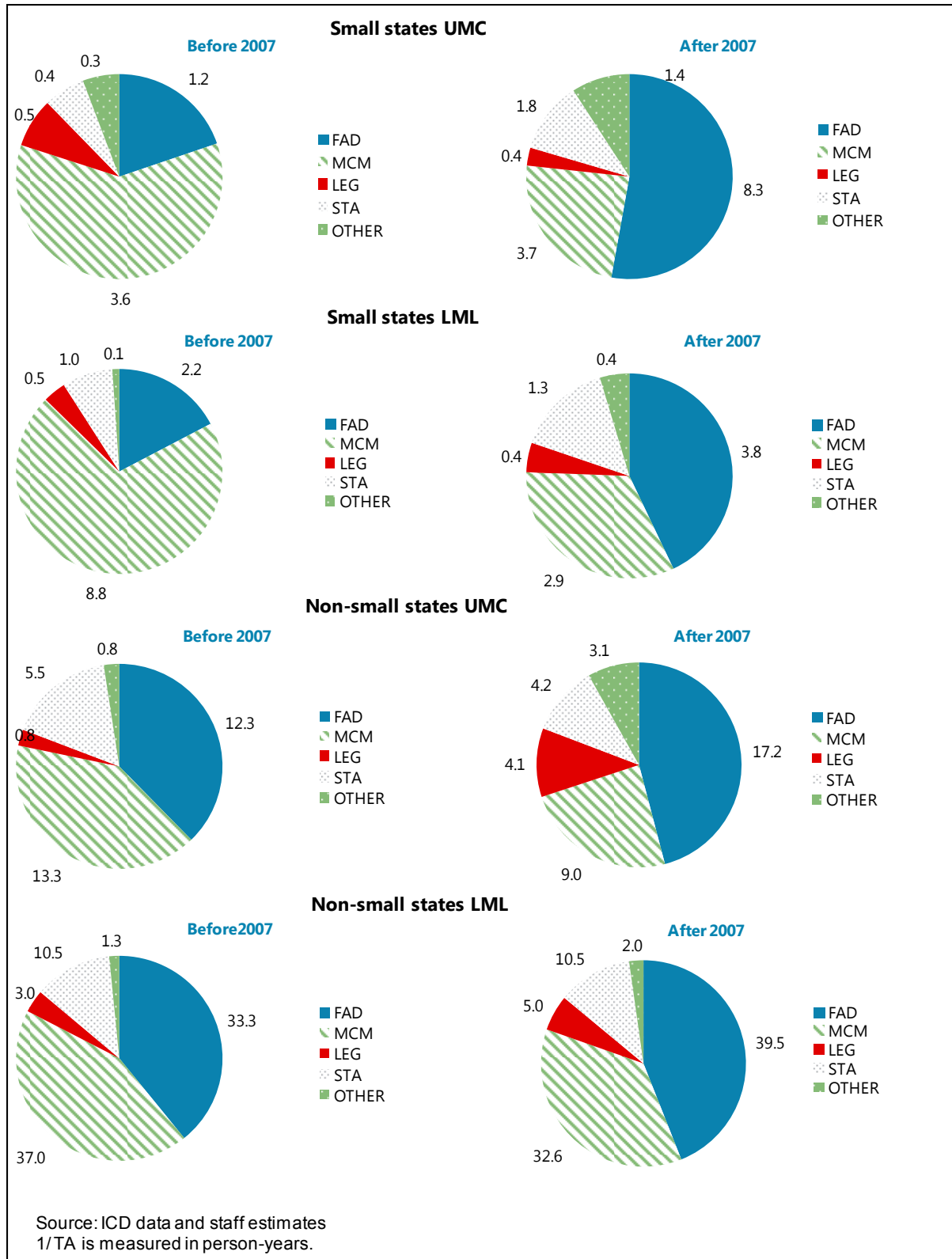
**Appendix Figure 7. Program Goals and Instruments:  
GRA-Supported Programs, 2006–11**



**Appendix Figure 8. Program Goals and Instruments:  
PRGT-Supported Programs, 2006–11**



Appendix Figure 9. Technical Assistance, by Department, 2000–07 and 2008–12



## References

- Aghion, P., P. Bacchetta, R. Ranciere, and K. Rogoff, 2006, "Exchange Rate Volatility and Productivity Growth: The Role of Financial Development," CEPR Discussion Paper No. 5629 (London: Centre for Economic Policy Research).
- Aizenman, J. and B. Pinto, 2005, *Managing Economic Volatility and Crises: A Practitioner's Guide* (Cambridge University Press).
- Alesina, A., E. Spolaore, and R. Wacziarg, 2005, "Trade, Growth, and the Size of Countries," in *Handbook of Economic Growth*, ed. by P. Aghion and S. Durlauf (Stanford: Stanford University).
- Alesina, A. and R. Perotti, 1997, "Fiscal Adjustments in OECD: Composition and Macroeconomic Effects," *Staff Papers*, International Monetary Fund, Vol. 44 (June).
- Alesina, A., and R. Wacziarg, 1998, "Openness, Country Size, and the Government," *Journal of Public Economics*, Vol. 69, No. 3, pp. 305–321.
- Alexandraki, K. and H. Lankes, 2004, "The Impact of Preference Erosion on Middle-Income Developing Countries," IMF Working Paper 04/169 (Washington: International Monetary Fund).
- Amo-Yartey, C., M. Narita, G. Nicholls, J. Okwuokei, A. Peter, and T. Turner-Jones, 2012, "The Challenges of Fiscal Consolidation and Debt Reduction in the Caribbean," IMF Working Paper 12/276 (Washington: International Monetary Fund).
- Ardagna, S., 2004, "Fiscal Stabilizations: When do They Work and Why?" *European Economic Review*, Vol. 48, No. 5, pp. 1047–1074.
- Batista, C., A. Lacuesta, and P. Vicente, 2012, "Testing the 'Brain Gain' Hypothesis: Micro Evidence from Cape Verde," *Journal of Development Economics*, Vol. 97.
- Becker, C., 2012, "Small Island States in the Pacific: the Tyranny of Distance?" IMF Working Paper 12/223 (Washington: International Monetary Fund).
- Blake, T., 2012, "Measuring the Impact of the Jamaican Government on the Economy via Fiscal Multipliers," Bank of Jamaica Fiscal and Economic Programme, Monitoring Department Working Paper.
- Briguglio, L., G. Cordina, N. Farrugia, and S. Vella, 2009, "Economic Vulnerability and Resilience: Concepts and Measurements," *Oxford Development Studies*, Vol. 37, No. 3, pp. 229–47.
- Cordina, G. and S. Vella, 2012, "Small States and International Development Policy," draft paper prepared for the *Second Global Biennial Conference on Small States*.
- Crispolti, V., E. Dabla-Norris, J. Kim, K. Shirono, and G. Tsibouris, 2013, "Assessing Reserve Adequacy in Low-Income Countries," IMF Occasional Paper 276 (forthcoming; Washington: International Monetary Fund).

- Crispolti, V. and G. Tsibouris, 2012, "International Reserves in Low Income Countries: Have They Served as Buffers?" IMF Working Paper 12/7 (Washington: International Monetary Fund).
- Daniel, J., J. Davis, M. Fouad, and C. Van Rijckeghem, 2006, *Fiscal Adjustment for Stability and Growth*, IMF Pamphlet Series 55 (Washington: International Monetary Fund).
- Dodhia, D., 2005, "The Emerging Debt Problems of Small States," in Commonwealth Secretariat, *A Preliminary Paper to the Commonwealth Finance Ministers' Meeting*, (London: Commonwealth Secretariat).
- Easterly, W. and A. Kraay, 2000, "Small States, Small Problems? Income, Growth and Volatility in Small States," *World Development*, Vol. 28, No. 11.
- Eichengreen, B. and P. Gupta, 2012, "The Real Exchange Rate and Export Growth: Are Services Different?" National Institute of Public Finance and Policy Working Paper no. 112 (New Delhi: National Institute of Public Finance and Policy).
- Endegnanew, Y., C. Amo-Yartey, and T. Turner-Jones, 2012, "Fiscal Policy and the Current Account: Are Micro-States Different?" IMF Working Paper 12/51 (Washington: International Monetary Fund).
- Fatás, A., and I. Mihov, 2006, "Policy Volatility, Institutions and Economic Growth." Available at: [faculty.insead.edu/fatas/volgrowth.pdf](http://faculty.insead.edu/fatas/volgrowth.pdf)
- Favaro, E., 2008, *Small States, Smart Solutions: Improving Connectivity and Increasing the Effectiveness of Public Services* (Washington: World Bank).
- Favaro, E. and D. Peretz, 2008, "Overview of Studies of Economic Growth," in *Small States, Smart Solutions: Improving Connectivity and Increasing the Effectiveness of Public Services*, ed. by E. Favaro (Washington: World Bank).
- Frankel, J., 2012, "What Small Countries can Teach the World," *Business Economics*, Vol. 47, No. 2.
- Gavin, M. and R. Haussmann, 1998, "Macroeconomic Volatility and Economic Development" in *The Political Dimension of Economic Growth*, eds. by S. Borner and M. Paldam (Houndsmill, U.K.: Macmillan, for the International Economic Association).
- Gibson, J. and D. McKenzie, 2011, "The Microeconomic Determinants of Emigration and Return Migration of the Best and Brightest: Evidence from the Pacific," *Journal of Development Economics*, Vol. 95.
- Gibson, J. and K. Nero, 2008, "Why Don't Pacific Island Countries' Economies Grow Faster?" in *Pacific Interactions: Pasifika in New Zealand—New Zealand in Pasifika*, ed. by A. Bisley (Wellington: Victoria University Institute of Policy Studies).
- Gounder, R. and S. Saha, 2007, "Economic Volatility, Economic Vulnerability and Foreign Aid: Empirical Results for the South Pacific Island Nations," Massey University Department of Applied and International Economics, Discussion Paper No. 07.02.
- Guichard, S., M. Kennedy, and A. Pescatori, 2011, "Expansionary Austerity: New International Evidence," IMF Working Paper 11/158 (Washington: International Monetary Fund).

- Hnatkovska, V. and N. Loayza, 2005, "Volatility and Growth," in *Volatility and Growth*, ed. by J. Aizenmann and B. Pinto (U.K.: Cambridge University Press).
- Hnatkovska, V. and L. Norman, 2004, "Volatility and Growth," in *Managing Economic Volatility and Crises: A Practitioner's Guide*, ed. by J. Aizenman and B. Pinto (U.K.: Cambridge University Press).
- Hodler, R. and D. Knight, 2011, "Ethnic Fractionalisation and Aid Effectiveness," *Journal of African Economies*, Vol. 21, No. 1.
- Inter-American Development Bank, 1995, "Overcoming Volatility in Latin America," in *Report on Economic and Social Development in Latin America* (Washington: Inter-American Development Bank).
- International Monetary Fund, 2004a, *Belize: Assessment of the Supervision and Regulation of the Financial Sector—Review of Financial Sector Regulation and Supervision*, IMF Staff Country Report No. 04/373 (Washington: International Monetary Fund).
- International Monetary Fund, 2004b, *Eastern Caribbean Currency Union: Financial System Stability Assessment, including Report on the Observance of Standards and Codes on Banking Supervision*, IMF Staff Country Report No. 04/293 (Washington: International Monetary Fund).
- International Monetary Fund, 2007, "Exchange Rates and the Adjustment of External Imbalances," *World Economic Outlook*, April, Chapter 3.
- International Monetary Fund, 2008, "Fiscal Policy as a Countercyclical Tool," *World Economic Outlook*, October, Chapter 5.
- International Monetary Fund, 2009, *Barbados: Financial System Stability Assessment—Update, including Reports on the Observance of Standards and Codes on the following topics: Banking Supervision and Securities Regulation*, IMF Staff Country Report No. 09/64 (Washington: International Monetary Fund).
- International Monetary Fund, 2013, "The ECCU: In Search of Lost Competitiveness," in *Eastern Caribbean Currency Union: Selected Issues*.
- International Monetary Fund and World Bank, 2011, *Managing Volatility in Low-Income Countries: The Role and Potential for Contingent Financial Instrument*.
- Laframboise, N. and B. Loko, 2012, "Natural Disasters: Mitigating Impact, Managing Risk," IMF Working Paper 12/245 (Washington: International Monetary Fund).
- Loayza N. V., R. Rancière, L. Servén, and J. Ventura, 2007, "Macroeconomic Volatility and Welfare in Developing Countries: An Introduction," *World Bank Economic Review*, Vol. 21, No. 3.
- Low, P., R. Piermartini, and J. Richter, 2005, "Multilateral Solutions to the Erosion of Non-Reciprocal Preferences in NAMA," WTO Working Paper No ERSD-2005-05 (Geneva: WTO).



- Low, P., R. Piermartini, and J. Richter, 2006, "Non-Reciprocal Preference Erosion Arising from MFN Liberalization in Agriculture: What are the Risks?" WTO Working Paper No. ERSD-2006-02 (Geneva: WTO).
- Malik, A. and J. Temple, 2008, "The Geography of Output Volatility," *Journal of Economic Development*, Vol. 90, No. 2, pp. 163–178.
- Medina-Cas, S. and R. Ota, 2008, "Big Government, High Debt, and Fiscal Adjustment in Small States," IMF Working Paper 08/39 (Washington: International Monetary Fund).
- Meilak C., 2008, "Measuring Export Concentration: The Implications for Small States," *Bank of Valletta Review*, No. 37.
- Melecky, M. and C. Raddatz, 2011, "How do Governments Respond after Catastrophes? Natural-Disaster Shocks and the Fiscal Stance," World Bank Policy Research Paper No. 5039.
- Mlachila, M. and P. Cashin, 2007, "The Macroeconomic Impact of Trade Preference Erosion on the Windward Islands," in *Eastern Caribbean Currency Union: Selected Issues*, IMF Staff Country Report No. 07/97.
- Mlachila, M., P. Cashin, and C. Haines, 2010, "Caribbean Bananas: The Macroeconomic Impact of Trade Preference Erosion," IMF Working Paper 10/59 (Washington: International Monetary Fund).
- Nickel, C., P. Rother, and L. Zimmermann, 2010, "Major Debt Reductions: Lessons from the Past, Lessons for the Future," European Central Bank Working Paper No. 1241.
- Obstfeld, M., and K. Rogoff, 2000, "The Six Major Puzzles in International Macroeconomics: Is there a Common Cause?" in *NBER Macroeconomics Annual 2000*, ed. by S. Bernanke and K. Rogoff (MIT Press).
- PFTAC, 2010, "Interest Rates and Bank Profitability in the South Pacific," paper prepared for the Pacific Forum Economic Ministers' Meeting, Niue, October.
- Prati, A. and T. Tresselt, 2006, "Aid Volatility and Dutch Disease: Is There a Role for Macroeconomic Policies?" IMF Working Paper 06/145 (Washington: International Monetary Fund).
- Ramey, G. and V. A. Ramey, 1995, "Cross-Country Evidence on the Link between Volatility and Growth," *American Economic Review*, Vol. 85, No. 5, pp. 1138–51.
- Ravallion, M., 2012, "Troubling Tradeoffs in the Human Development Index," *Journal of Development Economics*, Vol. 99.
- Schiff, M. and Y. Wang, 2012, "North-South Trade-Related Technology Diffusion and Productivity Growth: Are Small States Different?" *International Economic Journal*, Vol. 26.
- Strobl, E., 2012, "The Economic Growth Impact of Natural Disasters in Developing Countries: Evidence from Hurricane Strikes in the Central American and Caribbean Regions," *Journal of Development Economics*, Vol. 97.

- Thacker, N., S. Acevedo, and R. Perrelli, 2012, "Caribbean Growth in an International Perspective: The Role of Tourism and Size," IMF Working Paper 12/235 (Washington: International Monetary Fund).
- Tsibouris, G., M. Horton, M. Flanagan, and W. Maliszewski, 2006, *Experience with Large Fiscal Adjustments*, IMF Occasional Paper No. 246 (Washington: International Monetary Fund).
- United Nations Development Program, 2011, "Human Development Report 2011," (New York: UNDP).
- United Nations and World Bank, 2010, *Natural Hazards, Unnatural Disasters: the Economics of Effective Prevention* (Washington: The World Bank).
- Winters, A., and P. Martins, 2004, "When Comparative Advantage is not Enough: Business Costs in Small Remote Economies," *World Trade Review*, Vol. 3, No. 3.
- World Bank Independent Evaluation Group, 2006, *Small States: Making the Most of Development Assistance: A Synthesis of World Bank Evaluation Findings* (Washington: World Bank).
- Worrell, D., 2012, "Policies for Stabilization and Growth in Small Very Open Economies," (Washington: Group of Thirty). Available at: [www.group30.org/images/PDF/ReportPDFs/OP85.pdf](http://www.group30.org/images/PDF/ReportPDFs/OP85.pdf)
- Worrell, D., 2013, "The Economic Prospects for the English-speaking Caribbean," manuscript (Bridgetown: Central Bank of Barbados).
- Yang, Y., M. Davies, S. Wang, J. Dunn, and Y. Wu, 2011, "Monetary Policy Transmission and Macroeconomic Policy Coordination in Pacific Island Countries," IMF Working Paper 11/96 (Washington: International Monetary Fund).
- Yusuf, S. and K. Nabeshima, 2012, *Some Small Countries do it Better: Rapid Growth and its Causes in Singapore, Finland, and Ireland* (Washington: World Bank).