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A Cross-Country Perspective on Growth in the Caribbean The Role of Tourism and Debt

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5. A Cross-Country Perspective on Growth in the Caribbean: The Role of Tourism and Debt

After earlier success, growth performance in most Caribbean countries has been disappointing since the early 1990s. Growth has slowed, in many cases to less than that of relevant comparator countries. Income, rather than converging toward advanced country levels, has fallen further behind. This chapter analyzes the growth experience of the Caribbean countries from an international perspective. Two findings stand out. First, tourism has been a significant contributor to growth and in many countries there remains scope for further expansion of this sector. Second, a major increase in debt has hampered growth considerably. The implications are that policies that facilitate further development of tourism can pay dividends at the level of the macroeconomy. Perhaps the most promising role of policies lies in fiscal consolidation to support long-term growth.

Growth Performance in the Last 40 Years

On average, growth has been low in the Caribbean countries over the last four decades: 2.2 percent based on PPP weights (3.4 percent based on a simple average). However, there is substantial heterogeneity across countries (Table 5.1 and Figure 5.1).[1] We divide the region into three broad analytical groups—the six Eastern Caribbean Currency Union countries (ECCU), which form a currency union and have a common central bank, three "commodity-exporting Caribbean countries" (CECC), and four "other Caribbean countries" (OCC).[2] The countries in each group share common features and have different comparator groups.

Following strong growth in the 1970s and 1980s, growth has subsequently slowed down considerably in the ECCU.[3] At an average growth of about 6 percent in the 1970s and 1980s, the ECCU outperformed emerging and developing

Table 5.1. On average, growth and volatility in the Caribbean has been lower than its comparators.

GDP Growth and Volatility
(Based on real GDP growth rates (PPP) 1971–2009)

Countries	Countries	Average Growth	Average Std. Dev.	Frequency of Growth Crashes [1]
Caribbean (simple average)	13	3.4	4.7	4.5
Caribbean	13	2.2	4.7	4.5
ECCU	6	4.3	4.2	3.0
Non-ECCU Caribbean	7	2.1	5.0	5.9
Commodity exporters	3	2.6	5.5	9.4
Other Caribbean	4	1.7	4.7	3.2
Tourism-intensive Caribean [2]	6	2.7	4.3	3.8
Non-Caribbean emerging and developing economies	136	5.1	6.8	6.2
Latin America	17	3.4	4.5	4.5
Non-Caribbean small islands	18	4.3	5.6	4.2
Countries with comparable income in 1970 [3]	31	3.7	5.0	5.0

Sources: *World Economic Outlook* ; and IMF staff calculations.
[1] Share of years (in percent) with growth lower than -5.1percent (which corresponds to the 5th percentile of all country/years growth).
[2] Antigua and Barbuda, Bahamas, Barbados, Grenada, St. Kitts and Nevis, St. Lucia.
[3] Countries that are within ± half of a standard deviation of the average real GDP per capita of the Caribbean countries in 1970. They include Albania, Algeria, Angola, Bolivia, Brazil, Bulgaria, Chile, China,P.R., Hong Kong SAR, Colombia, Costa Rica, Cyprus, Ecuador, El Salvador, Guatemala, Hungary, Iran, I.R. of, Malta, Mexico, Nicaragua, Panama, Peru, Poland, Portugal, Romania, Seychelles, Singapore, South Africa, Taiwan Province of China, Turkey, Uruguay, and Vanuatu.
Note: Figures for country groups are PPP-weighted averages.

Note: This chapter was prepared by Nita Thacker and Sebastian Acevedo with contributions from Roberto Perrelli, Joong Shik Kang, and Melesse Tashu.

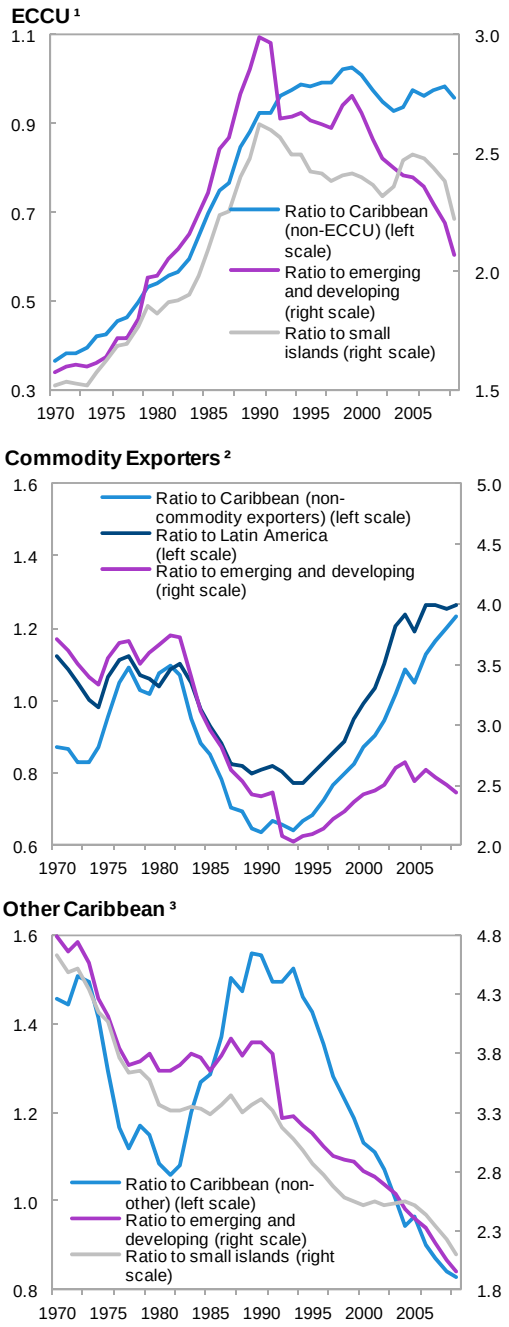
[1] The focus of this chapter is on the independent CARICOM countries, with the exception of Haiti, which is excluded because unlike the rest of CARICOM it has been characterized by significant political instability that has affected growth (see Box 5.1).

[2] The ECCU includes Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. The CECC includes Guyana, Suriname, and Trinidad and Tobago. OCC includes the Bahamas, Barbados, Belize, and Jamaica.

[3] The "convergence hypothesis" suggests that poor countries should grow faster than rich ones because poor countries have lower capital per capita and therefore there are increasing returns to capital. Among the three regions, the ECCU was the poorest in terms of per capita GDP in 1970.

Figure 5.1 Caribbean countries are losing ground to their peers and the fast-growing emerging and developing countries.

Caribbean: Per capita GDP (PPP) Relative to Relevant Comparators, 1970–2009



Source: IMF staff calculations.
[1] Includes Antigua & Barbuda, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines.
[2] Includes Guyana, Suriname, and Trinidad & Tobago.
[3] Includes the Bahamas, Barbados, Belize, and Jamaica.

countries and other small islands (SIs) alike (Figure 5.1).[4] This strong performance was driven by an expansion of agricultural exports (mainly bananas and sugar) under preferential trade arrangements with Europe, large aid inflows that followed independence from Britain, and an initial spurt from tourism. But growth halved in the next two decades as agricultural exports collapsed owing to the erosion of trade preferences, aid flows declined, and prices of commodity imports increased. Reflecting this overall growth, per capita GDP in the ECCU was rising faster than that of the rest of the world until the 1980s, but the trend has reversed since, and the ECCU has lost ground vis-à-vis other comparator countries, including the SIs.

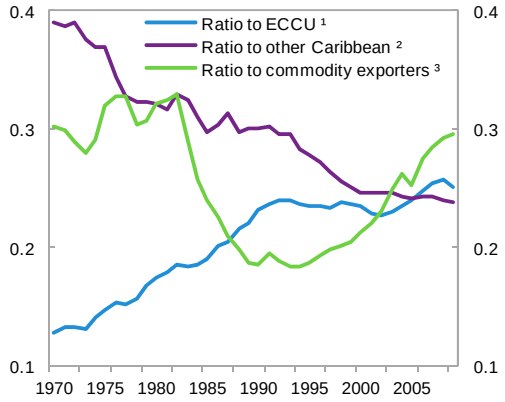
The OCC group, which includes some of the larger and more tourism-intensive economies in the region, has underperformed vis-à-vis competitors in practically all the four decades. This reflects a combination of factors—declining agricultural exports (mainly sugar), higher commodity import prices, and an increase in debt. As a result, the region has fallen behind relative to other countries in Latin America and the emerging and developing countries, and per capita GDP has diverged significantly from the United States (Figure 5.2).

On the other hand, CECC countries have made a dramatic recovery since the late 1980s, reflecting increased production of minerals and fossil fuels as well as higher commodity export prices. This is particularly true for Trinidad and Tobago which is highly dependent on oil and gas production (this sector contributes about 40 percent to GDP). That said, despite the uptrend in the CECC per

[4] For the purpose of this paper, SI economies comprise 23 small islands other than those included in our study of the Caribbean. These are Bermuda, Cape Verde, Comoros, Cuba, Cyprus, Dominican Republic, Fiji, Haiti, Kiribati, Maldives, Malta, Marshall Islands, Mauritius, Federated States of Micronesia, Palau, Papua New Guinea, Samoa, São Tomé and Príncipe, Seychelles, Solomon Islands, Sri Lanka, Tonga, and Vanuatu.

Figure 5.2. Caribbean countries still have a lot of catching up to do.

Caribbean: Per capita GDP (PPP) Relative to the United States, 1970–2009



Source: IMF staff calculations.
[1] Includes Antigua & Barbuda, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines.
[2] Includes The Bahamas, Barbados, Belize, and Jamaica.
[3] Includes Guyana, Suriname, and Trinidad & Tobago.

capita GDP in the last twenty years, it is still well below U.S. per capita GDP (Figure 5.2).

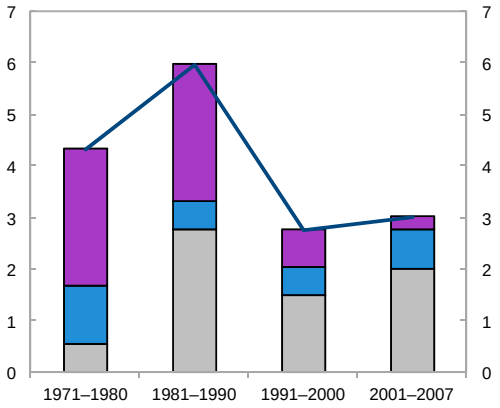
Perhaps surprisingly, despite the openness of their economies and exposure to natural disasters, the volatility of output growth in both the ECCU and OCC has been considerably smaller than for the comparator group of other small island nations and for emerging and developing countries (Table 5.1). The same picture holds whether volatility is measured as the standard deviation of GDP growth, or is based on the frequency of growth crashes (events of large drops in activity). On the contrary, output volatility is much higher for the CECC although this reflects the volatility of commodity prices in general rather than any country- or region-specific factors.

With these stylized facts in mind, we analyze in the rest of the chapter the role of productivity and factor accumulation in the growth performance of the region, whether tourism is an activity that has traction for growth, and the implications of high indebtedness for growth.

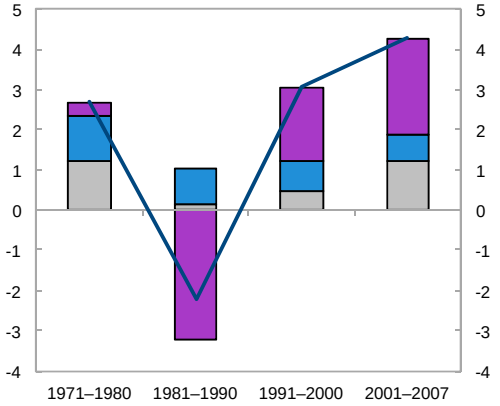
Figure 5.3. Growth is driven by changes in TFP for much of the Caribbean region.

Caribbean: Contributions to Growth, 1970–2009 [1]
(Percent)

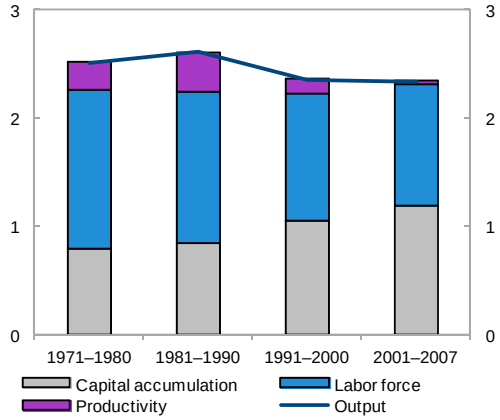
ECCU [2]



Commodity Exporters [3]



Other Caribbean [4]

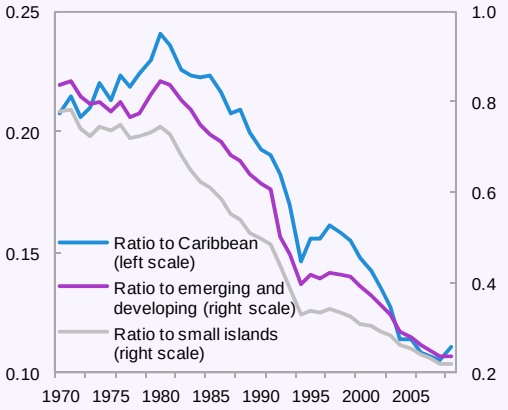


Sources: Heston, Summers, and Aten (2009); Emergency Disaster Database (EM-DAT), CRED (2010); and IMF staff calculations.
[1] Data adjusted for the effect of hurricanes on capital.
[2] Includes Antigua & Barbuda, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines.
[3] Includes Guyana, Suriname, and Trinidad & Tobago.
[4] Includes the Bahamas, Barbados, Belize, and Jamaica.

Box 5.1. Haiti's Growth Performance and Challenges

Haiti's growth performance has been persistently weak, with per capita GDP growth highly volatile and declining since the 1980s. Per capita GDP has diverged increasingly from the Caribbean countries, the Dominican Republic, and other small islands in the rest of the world. As a result, the poverty rate is now the highest in the Western Hemisphere, with 72 percent of Haitians living on less than US$2 a day compared, for example, with 16 percent for the Dominican Republic.

Haiti: Per capita GDP (PPP) Relative to Relevant Comparators, 1970–2009 [1]



Source: IMF staff calculations.
[1] Small islands and emerging and developing economies do not include Haiti in this case.

Aside from exogenous shocks, much of Haiti's growth divergence is explained by political instability and long-standing structural obstacles to growth. Haiti's growth was at its strongest in the 1970s, owing to dynamic investment and structural reforms aimed at enhancing trade openness, education, and credit to the private sector. Growth started to decline in the 1980s as a result of political turmoil and decelerated further during the 1990s. In addition, private sector development and investment have been limited by dilapidated infrastructures, difficulty in enforcing property rights, and a challenging business environment. Results from standard growth accounting analysis show that negative total factor productivity and low capital accumulation explain most of Haiti's weak growth performance.

Nonetheless, economic performance had started to improve before the earthquake in 2009. Following successful macroeconomic stabilization and the steady implementation of institutional and structural reforms in the context of successive IMF programs since 2004, real GDP growth picked up, averaging 2.3 percent a year between 2006 and 2009, compared with a decline of 0.5 percent per year during 2000–05. Recognizing the government's efforts and the needs of the country, donors agreed to cancel US$1.2 billion of eligible debt in June 2009 in the context of the Heavily Indebted Poor Countries/Multilateral Debt Relief Initiative.

Medium-term growth challenges are daunting, and hinge importantly on successful post-earthquake reconstruction efforts. The earthquake caused damages and losses amounting to 120 percent of GDP, and affected a third of the population, making it one of the most devastating natural disasters in recent history (aside from tropical storm Ivan, which destroyed 250 percent of Grenada's GDP and affected about 60 percent of its population). Total donor pledges amount to US$10.2 billion over 10 years, which could triple annual aid inflows to Haiti from about 5 percent of GDP in 2004–09 to about 15 percent in 2010–14. The authorities' plan aims at raising medium-term growth to about 6 percent, mainly through (i) the creation of regional growth poles focusing on tourism, agriculture and agribusiness, and textile manufacturing; and (ii) enhancements in the transport and communication infrastructure (roads, ports, airports, and energy supply). The success of this strategy will depend crucially on the timely delivery of the promised international assistance and on the capacity of the government to work in partnership with the private sector and attract foreign direct investment.

Note: This box was prepared by Aminata Touré.

A First Pass: Growth Accounting

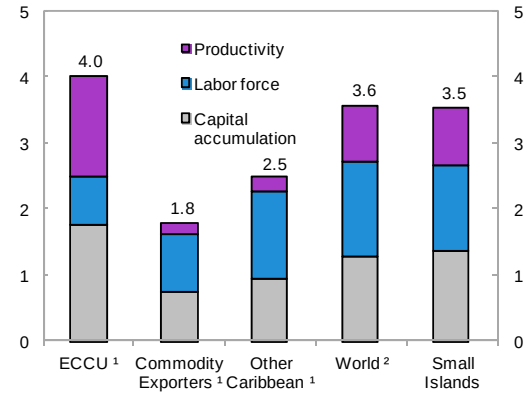
The standard growth accounting framework decomposes observed output growth into contributions of capital and labor and a residual that is associated with total factor productivity (TFP).[5]

TFP explains the bulk of the variation in economic growth in the ECCU and CECC (Figure 5.3). A pickup in investment in the 1980s in the ECCU countries, much of it driven by tourism development, was accompanied by strong productivity growth and a pickup in GDP growth.

However, in subsequent decades, productivity growth declined noticeably, perhaps reflecting inadequate infrastructure and absence of complementary skill factors to capital (a problem common in developing countries). This lower productivity growth has led to a marked decline in output growth despite investment remaining relatively robust, as suggested by the large contribution of capital accumulation. This also suggests that instead of the amount invested, the type (and productivity) of investment should be at the forefront. In the CECC, modest increases in investment have been accompanied by a jump in productivity, helping the region to generate higher growth. In the OCC, the contribution of TFP has been much more marginal, both on average and in explaining growth swings, although TFP growth has slowed. In this group of countries, the contribution of capital formation also seems modest, particularly when compared with world averages (Figure 5.4).

Figure 5.4. Productivity growth in the region has been historically low compared with peers.

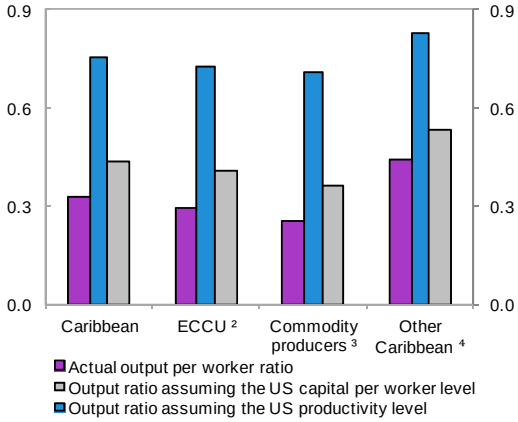
World: Average Contributions to Growth, 1970–2007
(Percent)



Sources: Emergency Disaster Database (EM-DAT), CRED (2010); Heston, Summers, and Aten (2009); and IMF staff calculations.
[1] Adjusted for the effect of hurricanes on capital.
[2] World includes data from188 countries from the PWT 6.3.

Figure 5.5. There is significant scope for boosting growth by raising productivity.

Caribbean: Output per Worker and Its Components, 2001–07 [1]
(Ratios to the United States)



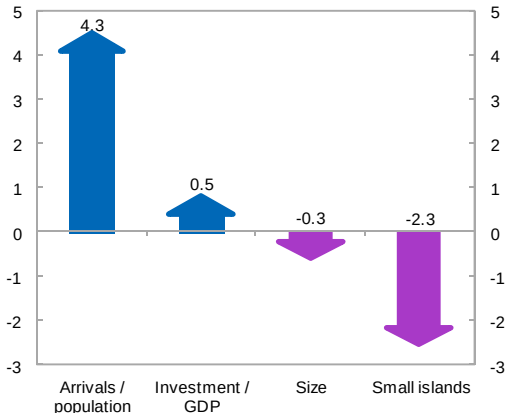
Sources: Emergency Disaster Database (EM-DAT), CRED (2010); and Heston, Summers, and Aten (2009); IMF staff calculations.
[1] Data adjusted for the effect of hurricanes on capital.
[2] Antigua & Barbuda, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines.
[3] Guyana, Suriname, and Trinidad & Tobago.
[4] The Bahamas, Barbados, Belize, and Jamaica.

To further illustrate the importance of productivity, we calculate what output per worker would be assuming the Caribbean region achieves U.S. productivity level (Figure 5.5) or its capital

[5] Growth accounting has some important limitations. First, it is based on two strong assumptions, complete markets and constant returns to scale. Second, the TFP component is measured as an unexplained residual and therefore picks up measurement errors in the data (for our sample of countries this could be quite significant). Also a failure to account for improvements in the quality and composition of the physical capital and the differences in human capital of the labor force will lead to an overestimation of TFP growth. Fourth, it does not provide any insight into why TFP changes from one period to another.

Figure 5.6. Tourism has a positive effect on growth that more than compensates for being a small island.

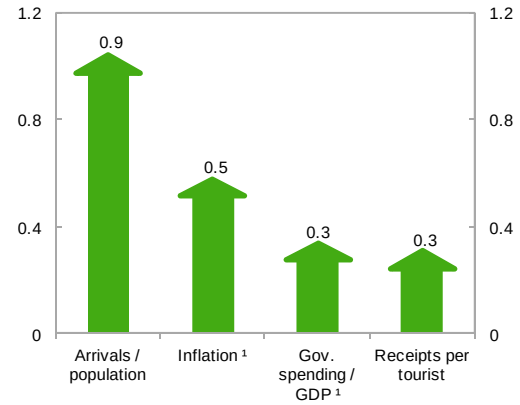
Caribbean: Factors Contributing to Growth vis-à-vis the World
(Percent)



Source: IMF staff calculations.

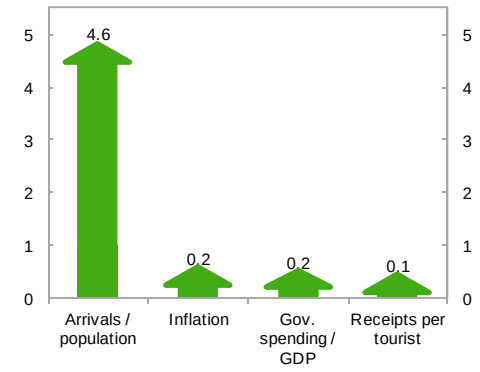
Figure 5.7. There is further scope to boost growth through tourism.

Caribbean: Effect on Growth of Having the 90th Percentile of the World Levels
(Percent)



Source: IMF staff calculations.
[1] Variables calculated at the 10th percentile of the world level.

Caribbean: Effect on Growth of Having the Bahamas Levels
(Percent)



Source: IMF staff calculations.

per worker level.[6] Output could be doubled if the region manages to raise productivity to U.S. levels, with the ECCU and the CECC benefiting somewhat more than the OCC. Output would also increase if capital per worker were to reach U.S. levels, although the gain would be far less spectacular. This suggests that although a further boost in investment could enhance output, the main effort should be focused toward raising productivity.

Does Tourism Help Growth?

Most Caribbean countries went through a transformation of their economies in the 1960s and 1970s, moving from dependence on agriculture to dependence on tourism. Today, tourism is by far the largest sector in several Caribbean countries and the largest private sector employer. However, the consequences of such strong specialization in tourism for long-term growth are not obvious. In theory, an expansion of the tourism sector, or more generally the service sector, could have either a positive or negative impact on long-term growth. On the positive side, the initial move to specialization according to this apparent comparative advantage could raise income levels initially, and thereafter the tourism sector could be a locus of ongoing growth, like any other.

On the negative side, specialization in services could mean lower productivity growth in the future—on the critical assumption that sectors such as manufacturing are special in terms of stimulating more productivity growth (see the May 2010 *Regional Economic Outlook* for a summary of such arguments).

In practice, the historical and cross-country evidence suggests that tourism so far has led to an

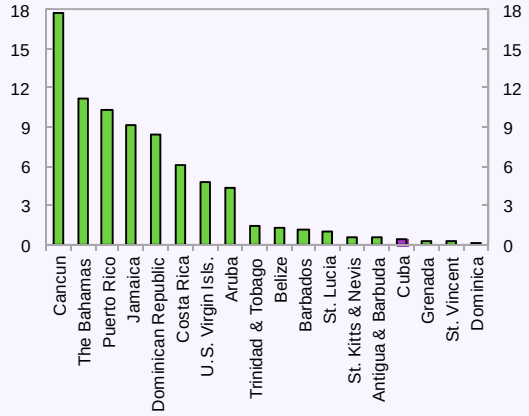
[6] To investigate this question, we use the level accounting methodology of Hall and Jones (1999) which decomposes the difference in output per worker between two countries as the difference between their capital-to-labor ratios and the TFP ratios (see Appendix Table 5.2).

Box 5.2. Outlook for Tourism in the Caribbean—Is Cuba a New Competitor?

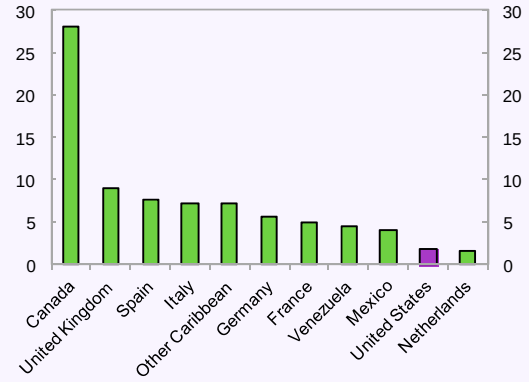
The Caribbean economies analyzed in this chapter are accustomed to competition from Cuba, as it already draws significant tourist arrivals, particularly from Canada and Europe. However, competition for the largest source of tourists to the Caribbean—the United States—is constrained by existing travel restrictions. Studies by Romeu (2008) and Romeu and Wolfe (2010) analyze how these restrictions have shaped, and helped, tourism to other Caribbean economies, likening these to the effects of preferential trade policies. Other things constant, U.S. restrictions on visits to Cuba have likely allowed higher prices for Caribbean tourism providers, and thus better terms of trade and higher real wages in Caribbean economies as a whole, than would otherwise have been the case.

Current U.S. policy does allow some travel to Cuba, and the extent of restrictions on such visits has changed over the years. A tightening of restrictions for travel to Cuba by (mainly) its expatriates under U.S. jurisdiction was imposed in 2004 and reversed in 2009. Romeu and Wolfe (2010) analyze the effects of these changes and find a significant impact of easing restrictions on travel to Cuba, suggesting that existing restrictions are significantly constraining broader U.S. travel to Cuba.

U.S. Travel to the Caribbean
(Average 2004–07, share)



Arrivals in Cuba by Source
(Average 2004–07, share)



Sources: WTO; country authorities; and IMF staff estimates.

More generally, under a hypothetical liberalization of current restrictions, the tourism market would need to find a new equilibrium as the cost for U.S. households' travel to Cuba fell precipitously. The two best predictors of tourism flows are the bilateral distance and economic size of trading partners. Holding other factors constant, large countries trade more with each other, as do countries that are geographically close. The United States is by far the largest consumer of tourism services in the region; under liberalization, U.S. demand for the first time in fifty years would meet with Cuba, the region's largest potential provider of tourism services—located closer to the United States than any other Caribbean destination except the Bahamas. As the rest of the Caribbean adjusts to losing the implicit trade subsidy provided by current travel restrictions, new tourism consumption patterns would emerge across all destination and visitor source countries.

Such a hypothetical liberalization, however, would not immediately have a negative effect on tourism in other Caribbean countries—and for a time the effects would likely be positive. Amid capacity constraints in Cuba, particularly in terms of adequate hotel supply, a surge in demand from U.S. residents would likely "crowd out" visitors from other countries, likely sending many, for example, Canadians, to other islands. Long-term competition from Cuba would depend in part on whether Cuban policies fostered expansion of the tourism industry, including reducing the high travel costs now associated with tourism in Cuba.

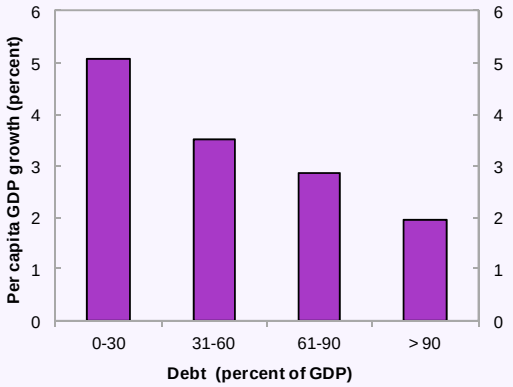
Note: This box was prepared by Rafael Romeu.

Box 5.3. Debt and Growth

Most studies that have looked at the relation between debt and growth conclude that high levels of public debt undermine economic performance by crowding out private investment and acting as a tax on future investment projects that also reduce investment.

Rising debt levels also cause uncertainty and loss of confidence in the government's ability to manage macroeconomic balance, deterring investment and hence growth. Results from the *Fiscal Monitor* (IMF, 2010b) suggest that on average a 10 percent increase in initial debt reduces real per capita GDP growth by 0.2 percent per year. In a recent study on 44 advanced and emerging economies covering a period of almost 200 years, Reinhart and Rogoff (2010) find that above a threshold of debt-to-GDP ratio of 90 percent, median growth rates fall 1 percent while average growth falls even more. They also find that emerging markets have a lower threshold of external debt (60 percent) above which growth rates decrease by 2 percent or more.

World: Debt and Real per Capita GDP Growth, 2000–07
(Percent)



Sources: Heston, Summers, and Aten (2009); and IMF staff calculations.

increase in GDP in the Caribbean. The results from a panel regression using the standard growth model, augmented to include tourism, show a significant positive association between tourism and growth (Appendix Table 5.3).[7] A 10 percent increase in tourist arrivals per capita raises economic growth by about 0.2 percent. In addition, not only the volume of tourism but also the quality and value added of tourism (as proxied by receipts per tourist) matter for growth. Furthermore, there appear to be no negative implications from attracting too many tourists, suggesting that a further expansion of this sector is likely to be beneficial for growth.[8]

Interestingly, the positive contribution from specializing in tourism has helped to more than offset the negative impacts of geography and "being small." In Figure 5.6, the blue arrows represent effects of variables that contributed positively to long-term growth and the purple arrows indicate effects of variables that have negatively affected long-term growth in the Caribbean. Tourist arrivals to the Caribbean countries have been higher than the world average; it has added 4.3 percentage points to growth in the region. At the same time, growth has been lower by 2.3 and 0.3 percentage points less per year on average given the island geographical nature of the Caribbean and the

[7] The panel uses cross-country data for 154 countries and covers a period of 29 years.

[8] When the quadratic term of "arrivals/population" is included in the regression, it has a positive and significant relation to growth, implying that there are no diminishing returns to more tourist arrivals. However, this abstracts from the limitations that could arise from lack of infrastructure (roads, airports, sanitation) that some of the islands may witness if tourist arrivals were to increase.

(continued)

(related) small absolute size of their economies, respectively. This suggests that specialization in tourism has been advantageous and indeed has offset some of the limitations that come from being a small island economy (for example, remoteness, higher transportation costs, diseconomies of scale).

There is scope for further growth by enhancing the role of the tourism sector (Figure 5.7), through both the number of arrivals and how much each tourist spends. Assuming that tourist arrivals were to equal the 90th percentile of the world level, this would increase GDP growth in the region by about 1 percentage point, with some countries losing out given that tourist arrivals are now above that 90th percentile level in some countries. However, growth jumps by 4 percentage points if tourist arrivals per capita in all the Caribbean countries (as included in this study) were to match the level of tourist arrivals in the Bahamas.

In terms of the average receipts per tourist, there is also some scope for additional growth, although this room is modest when the Bahamas is considered as the benchmark. Nonetheless, developing a niche and providing services that will attract high-end tourists could prove beneficial.

Dependency on tourism has not increased the volatility of growth. Using the standard deviation of growth as the dependent variable in our panel regression suggests that tourism not only raises per capita GDP growth but also helps to *reduce* its volatility.[9] This is in line with the finding that volatility in the Caribbean has not been unusually high relative to other regions, as noted earlier.

One important caveat with the policy implications of all this analysis is the challenge that the Caribbean countries face from new competition if, as is speculated, the United States were to eliminate all restrictions on travel to Cuba (see Box 5.2).

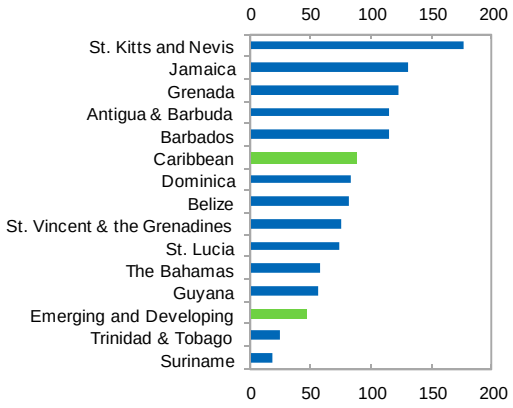
The Drag from Debt

The Caribbean countries are among the most highly indebted countries in the world (Figure 5.8). Five of the thirteen Caribbean countries have public debt-to-GDP ratios of more than 100 percent, and an additional four have debt levels above 70 percent.

Most of the public debt accumulation has occurred since the mid-1990s. In the ECCU, this reflects a worsening of the primary balance and increased off-budget spending and, to a lesser extent, the rise in interest costs relative to GDP growth. Although some ECCU countries have access to concessional resources from international financial institutions (IFIs), reliance on domestic debt is high in some countries, with commercial banks significant providers of debt. In these instances, interest costs have also been high. In the non-ECCU countries, many of which have access to international markets, the main reason for debt accumulation has been the rise in the interest bill relative to GDP growth, while

Figure 5.8. Caribbean countries are among the most highly indebted countries in the world.

Caribbean: Public Debt-to-GDP, 2009
(Percent)

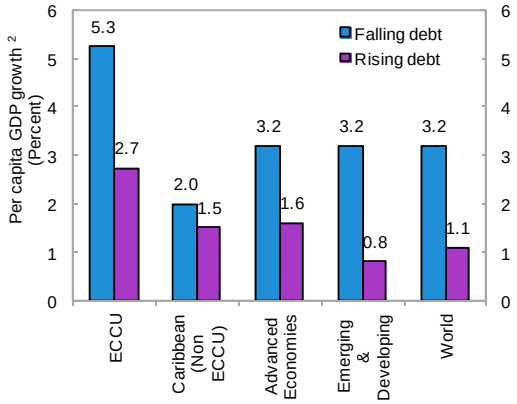


Source: IMF staff calculations.

[9] Detailed results are available in the forthcoming IMF Working Paper: Growth in the Caribbean in Cross Country Perspective: The Role of Tourism and Debt.

Figure 5.9. Reducing debt from high levels helps growth.

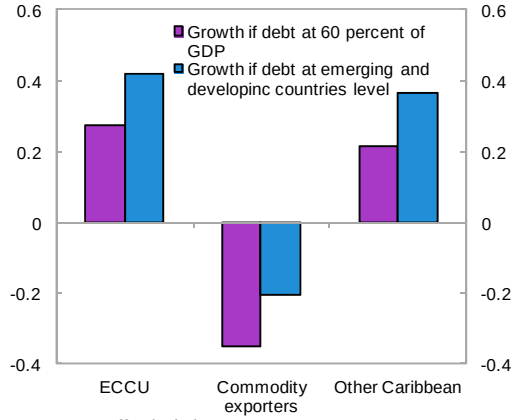
World: Real per Capita GDP Growth During Periods of Rising and Falling Debt, 1970–2007[1]



Sources: Heston, Summers, and Aten (2009); and IMF staff calculations. Based on the *Fiscal Monitor* (IMF 2010b), p. 63.
[1] Initial debt > 60 percent of GDP. ECCU includes Antigua & Barbuda, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines.
Non-ECCU Caribbean includes the Bahamas, Barbados, Belize, Guyana, Jamaica, Suriname, and Trinidad & Tobago.
[2] Average for subsequent 5 years.

Figure 5.10. Reducing debt has a positive impact on growth, and the inverse is also true.

Caribbean: Effect of Debt on Growth[1]
(Percent)



Source: IMF staff calculations.
[1] Based on regression (6) in Appendix Table 5.3, assuming 2009 debt-to-GDP levels drop (or increase) to 60 percent or 44.9 percent of GDP.

primary deficits have remained modest. In these countries, the realization of various types of contingent liabilities has also added to public sector debt.

Debt has negatively and significantly affected growth in the Caribbean, if one considers the cross-country experience as a guide (Box 5.3).[10] The evidence shows that for debt-to-GDP ratios above 30 percent, debt reduces growth. The negative impact of debt increases when the debt-to-GDP ratio crosses the 60 percent threshold.[11] Moreover, once debt is considered, investment no longer appears to have a positive impact on growth, suggesting that government spending is crowding out private investment (Appendix Table 5.3).

Although tightening fiscal policy might slow growth in the short term, it appears that lowering the debt-to-GDP ratio, when it is above 60 percent, tends to improve the economic performance of a country over the medium term (Figure 5.9).[12] A reduction in public debt encourages private investment through its effect on long-term interest rates. It also reduces the fear of tax hikes in the future. Thus, declining debt levels are associated with higher growth. For example, in the ECCU growth halved in periods of rising debt levels, relative to periods in which debt was falling, although the impact for the other two groups is more modest.

[10] To investigate this, we consider the panel regressions using the standard growth equation, augmented by tourism (as in the last section) and including debt. More detailed discussion of the results will be available in the forthcoming IMF Working Paper: Growth in the Caribbean in Cross Country Perspective: The Role of Tourism and Debt.
[11] Following Kumar and Woo (2010) and Patillo, Poirson, and Ricci (2002), the approach explores the nonlinearities of the growth-debt relationship by introducing interactions terms between debt and dummies for three ranges of debt-to-GDP: 0 to 30 percent, 30 to 60 percent, and 60 percent and above, and by including a quadratic specification for the debt variable.
[12] See also Chapter 3 of the October 2010 *World Economic Outlook*.

To illustrate further the inverse relationship between debt levels and GDP growth (Figure 5.10), we calculate by how much growth would increase if the region were to reduce the debt-to-GDP ratio to 60 percent (for the CECC countries this actually implies raising debt levels). Not surprisingly, the biggest positive impact would be for the ECCU countries, where three of the six countries have debt levels well above 100 percent of GDP. Thus, a reduction in debt in the ECCU to 60 percent would add about a quarter percentage point to growth. If the ECCU were to further reduce debt to the average level for emerging and developing countries (about 45 percent), growth could increase by about half a percentage point. On the other hand, CECC countries should continue to keep their debt levels low because an increase in debt would lower growth.

Conclusions

Although the Caribbean countries' per capita GDP increased significantly in the 1970s, in the last twenty years they have lost ground to their small island peer countries and the fast-growing emerging and developing countries. That said, growth performance has been quite heterogeneous, with the ECCU countries recording the best performance overall, and the CECC making up the ground they lost in the 1980s. However, all three groups need to do a great deal of catching up before they can reach the U.S. per capita GDP level.

Improvement of TFP has been the single most important driver of growth for much of the region. The decline in TFP growth despite high levels of capital accumulation accounts for the relatively poor performance of the ECCU countries in recent years. On the other hand, improvements in TFP combined with increased investment as a result of higher commodity prices since the late 1980s has helped the region's commodity-exporting countries (CECC) to gain lost ground. Although it is difficult to pinpoint the factors behind the large decline in TFP given that it could represent anything from lack of complementary factors and lack of innovation to simple measurement errors, efforts to improve TFP, through stronger institutions and adoption of new technology, are bound to help boost growth in the region.

Tourism has been an important contributor to growth, and there is significant scope in many countries to boost growth by enhancing the performance of this sector. However, to improve growth prospects a key issue that needs to be addressed is the rising debt level in the region. To the extent that governments are proactive in reducing debt, growth will improve not just by reducing budgetary interest costs and creating fiscal space but, more importantly, through their effect on reducing long-term interest rates and building confidence and increasing private sector investment.

The future of the Caribbean lies in its efforts to improve productivity and competitiveness in the tourism industry and the willingness of governments to reduce the high levels of debt that would create the necessary fiscal space to address future shocks to their economies.

Appendix

Table 5.2. Caribbean: Output Growth and Its Components; Ratio to United States Values, 1990–2007

(Percent, adjusted for the effect of hurricanes on capital)

Country	Year	Output per worker	Capital per worker	Productivity
Antigua and Barbuda	1990			
	2000	0.41	0.32	0.62
	2007	0.47	0.40	0.66
The Bahamas	1990	0.85	0.70	0.96
	2000	0.70	0.83	0.75
	2007	0.64	0.92	0.66
Barbados	1990	0.73	1.25	0.67
	2000	0.59	0.92	0.61
	2007	0.59	0.77	0.65
Belize	1990	0.30	0.38	0.42
	2000	0.28	0.29	0.43
	2007	0.29	0.25	0.47
Dominica	1990	0.17	0.18	0.31
	2000	0.14	0.15	0.28
	2007	0.12	0.15	0.24
Grenada	1990	0.41	0.77	0.45
	2000	0.46	1.02	0.45
	2007	0.40	0.90	0.42
Guyana	1990	0.06	0.29	0.09
	2000	0.07	0.22	0.12
	2007	0.06	0.17	0.12
Jamaica	1990	0.31	0.47	0.40
	2000	0.24	0.41	0.33
	2007	0.23	0.35	0.33
St. Kitts & Nevis	1990	0.26	0.35	0.38
	2000	0.30	0.28	0.47
	2007	0.38	0.49	0.48
St. Lucia	1990	0.38	0.27	0.59
	2000	0.32	0.38	0.44
	2007	0.32	0.35	0.46
St. Vincent & the Grenadines	1990	0.14	0.15	0.28
	2000	0.13	0.17	0.24
	2007	0.16	0.18	0.29
Suriname	1990	0.35	0.41	0.48
	2000	0.22	0.38	0.30
	2007	0.26	0.52	0.33
Trinidad & Tobago	1990	0.36	0.80	0.39
	2000	0.41	0.54	0.51
	2007	0.60	0.48	0.78

Sources: Emergency Disaster Database (EM-DAT), CRED (2010); and Heston, Summers, and Aten (2009); IMF staff calculations.
Note: More detailed data (since 1970) available in the forthcoming Working Paper: Growth in the Caribbean in Cross Country Perspective: The Role of Tourism and Debt.

Table 5.3. Tourism, Debt, and Growth

	GDP Growth							
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Convergence	-2.055***	-3.582***	-3.692***	-4.019***	-3.888***	-2.343***	-2.424***	-2.421***
	(0.324)	(0.406)	(0.407)	(0.426)	(0.421)	(0.613)	(0.620)	(0.621)
Government / GDP	-1.000**	-0.926*	-0.773	-0.551	-0.722	-1.014	-1.036	-1.016
	(0.455)	(0.476)	(0.470)	(0.486)	(0.477)	(0.657)	(0.661)	(0.662)
Primary education	1.985***	1.270*	1.201	0.805	1.510**	0.404	0.245	0.220
	(0.730)	(0.743)	(0.737)	(0.766)	(0.760)	(1.352)	(1.353)	(1.367)
Openness	1.354***	0.182	0.251	0.036	0.160	0.693	0.621	0.619
	(0.377)	(0.414)	(0.407)	(0.420)	(0.415)	(0.592)	(0.594)	(0.594)
Inflation	-0.522***	-0.534***	-0.518***	-0.497***	-0.506***	-0.468**	-0.498***	-0.498***
	(0.134)	(0.126)	(0.126)	(0.129)	(0.126)	(0.184)	(0.186)	(0.186)
Terms of trade	0.043**	0.081***	0.080***	0.086***	0.082***	0.111***	0.110***	0.110***
	(0.020)	(0.019)	(0.019)	(0.019)	(0.019)	(0.030)	(0.030)	(0.030)
Life expectancy	7.272***	5.097**	5.083**	3.874*	5.476**	-3.337	-3.542	-3.499
	(2.390)	(2.272)	(2.267)	(2.243)	(2.283)	(3.806)	(3.784)	(3.808)
Investment / GDP	2.824***	1.221***	1.311***	0.897**	1.364***	1.005	0.933	0.967
	(0.473)	(0.455)	(0.456)	(0.451)	(0.457)	(0.761)	(0.767)	(0.766)
Size	0.000*	0.000***	0.000***	0.000***	0.000***	0.000**	0.000**	0.000**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Arrivals / population		1.795***	1.915***	2.159***	2.516***	1.763***	1.833***	1.830***
		(0.265)	(0.271)	(0.271)	(0.440)	(0.405)	(0.404)	(0.404)
Small islands			-2.991***	-3.099***	-3.339***	-2.595**	-2.575**	-2.608**
			(0.906)	(0.971)	(0.949)	(1.263)	(1.278)	(1.275)
Receipts per tourist				0.426**				
				(0.212)				
(Arrivals / population)^2					0.096*			
					(0.057)			
Debt / GDP						-0.509**		
						(0.230)		
(Debt / GDP)*Dummy 0–30							-0.270	-0.269
							(0.335)	(0.330)
(Debt / GDP)*Dummy 30–60							-0.418	
							(0.268)	
(Debt / GDP)*Dummy >60							-0.444*	
							(0.241)	
(Debt / GDP)*Dummy 30–90								-0.422*
								(0.256)
(Debt / GDP)*Dummy >90								-0.453*
								(0.240)
(Debt / GDP)^2							0.026	
							(0.047)	
Constant	-29.730***	9.310	10.390	25.345**	9.665	38.936**	38.183**	41.364**
	(8.740)	(9.917)	(9.919)	(10.648)	(9.943)	(16.455)	(16.585)	(16.272)
Observations	791	760	760	749	760	467	467	467
Number of countries	154	152	152	151	152	136	136	136

Note: *** p-value <0.01; ** p-value <0.05; * p-value <0.1. Standard errors in parentheses.

The estimation used data from 154 countries covering a period of 29 years from 1979 to 2007, which we divide into five 5-year intervals and one 4-year interval. The dependent variable is the average real per capita GDP growth rate. The variable convergence is the log of per capita GDP at the beginning of the period, while the rest of independent variables are 5-year averages and are expressed as logarithms (except for Size). The procedure used in the estimation was the Hausman-Taylor estimator, which allows the use of a random effects model (to include time-invariant variables such as size and small islands) while correcting for the correlation of investment / GDP and the tourism variables with the individual effects u_i of each country.

Western Hemisphere

Main Economic Indicators [1]

	Output Growth (Percent)							Inflation (End-of-period, percent) [2]							External Current Account Balance (Percent of GDP)						
	1996-2005 Avg.	2006	2007	2008	2009	2010 Proj.	2011 Proj.	1996-2005 Avg.	2006	2007	2008	2009	2010 Proj.	2011 Proj.	1996-2005 Avg.	2006	2007	2008	2009	2010 Proj.	2011 Proj.
North America																					
Canada	3.3	2.8	2.2	0.5	-2.5	3.1	2.7	2.1	1.4	2.5	1.9	0.8	2.1	2.0	1.0	1.4	0.8	0.4	-2.8	-2.8	-2.7
Mexico	3.7	4.9	3.3	1.5	-6.5	5.0	3.9	10.6	4.0	3.7	6.5	3.5	4.5	3.0	-1.9	-0.5	-0.8	-1.5	-0.6	-1.2	-1.4
United States	3.4	2.7	1.9	0.0	-2.6	2.6	2.3	2.6	2.2	4.1	0.7	1.9	0.5	1.2	-3.7	-6.0	-5.1	-4.7	-2.7	-3.2	-2.6
South America																					
Argentina [3]	2.5	8.5	8.7	6.8	0.9	7.5	4.0	6.0	9.8	8.5	7.2	7.7	11.0	11.0	-0.1	3.2	2.3	1.5	2.0	1.7	1.2
Bolivia	3.3	4.8	4.6	6.1	3.4	4.0	4.5	4.2	4.9	11.7	11.8	0.3	3.5	3.5	-2.7	11.3	12.0	12.1	4.6	6.5	5.2
Brazil	2.4	4.0	6.1	5.1	-0.2	7.5	4.1	7.4	3.1	4.5	5.9	4.3	5.2	4.8	-2.0	1.2	0.1	-1.7	-1.5	-2.6	-3.0
Chile	4.3	4.6	4.6	3.7	-1.5	5.0	6.0	3.7	2.6	7.8	7.1	-1.4	3.7	3.0	-1.5	4.9	4.5	-1.5	2.6	-0.7	-2.0
Colombia	2.3	7.1	6.3	2.7	0.8	4.7	4.6	10.5	4.5	5.7	7.7	2.0	3.2	3.3	-1.8	-1.9	-2.8	-2.9	-2.2	-2.7	-2.8
Ecuador	3.3	4.8	2.0	6.5	0.4	2.9	2.3	29.4	2.9	3.3	8.8	4.3	3.7	3.2	-1.2	3.9	3.6	2.2	-0.7	-0.8	-1.6
Guyana	1.6	5.1	7.0	2.0	3.0	2.9	3.1	5.4	4.2	14.0	6.4	3.7	4.5	4.0	-7.6	-13.1	-11.1	-13.2	-8.6	-11.3	-10.2
Paraguay	1.2	4.3	6.8	5.8	-3.8	9.0	5.0	8.8	12.5	5.9	7.5	1.9	5.5	5.5	-1.6	1.4	1.8	-2.5	-1.0	-1.2	-1.6
Peru	3.4	7.7	8.9	9.8	0.9	8.3	6.0	4.0	1.1	3.9	6.7	0.2	2.8	2.0	-2.8	3.1	1.3	-3.7	0.2	-1.3	-2.2
Suriname	3.4	3.8	5.2	6.0	2.5	4.0	4.7	30.3	4.7	8.4	9.3	1.3	12.4	4.9	-14.6	7.5	7.5	4.0	-2.4	0.1	-2.3
Uruguay	1.3	4.3	7.5	8.5	2.9	8.5	5.0	11.0	6.4	8.5	9.2	5.9	7.0	6.0	-0.9	-2.0	-0.9	-4.8	0.7	-0.1	-0.7
Venezuela	2.0	9.9	8.2	4.8	-3.3	-1.3	0.5	30.8	17.0	22.5	30.9	25.1	33.3	31.0	8.0	14.8	8.8	12.0	2.6	7.8	8.2
Central America																					
Belize	5.8	4.7	1.2	3.8	0.0	2.0	2.3	1.9	2.9	4.1	4.4	-0.4	5.9	2.5	-12.7	-2.1	-4.1	-9.8	-6.8	-5.7	-6.7
Costa Rica	4.5	8.8	7.9	2.8	-1.1	3.8	4.2	11.6	9.4	10.8	13.9	4.0	5.5	4.5	-4.1	-4.5	-6.3	-9.2	-1.8	-4.2	-4.8
El Salvador	2.7	4.2	4.3	2.4	-3.5	1.0	2.5	3.3	4.9	4.9	5.5	0.0	1.5	2.8	-2.5	-4.2	-6.0	-7.6	-1.8	-2.8	-3.1
Guatemala	3.3	5.4	6.3	3.3	0.5	2.4	2.6	7.8	5.8	8.7	9.4	-0.3	5.5	5.0	-5.2	-5.0	-5.2	-4.5	-0.6	-2.9	-3.5
Honduras	3.9	6.6	6.2	4.0	-1.9	2.4	3.5	11.5	5.3	8.9	10.8	3.0	5.7	5.8	-4.7	-3.7	-9.0	-12.9	-3.2	-6.3	-6.9
Nicaragua	4.1	4.2	3.1	2.8	-1.5	3.0	3.0	8.3	9.4	16.9	13.8	0.9	7.0	6.7	-19.7	-13.6	-17.7	-24.1	-13.7	-16.4	-16.0
Panama	5.0	8.5	12.1	10.1	3.0	6.2	6.7	1.2	2.2	6.4	6.8	1.9	4.1	2.7	-5.2	-3.1	-7.2	-11.6	0.0	-7.9	-7.9
The Caribbean																					
Antigua and Barbuda	4.3	12.9	6.5	1.8	-8.9	-4.1	3.1	1.9	0.0	5.2	0.7	2.4	-1.1	4.4	-11.2	-31.4	-32.9	-29.4	-25.4	-14.8	-16.7
The Bahamas	3.8	3.5	1.9	-1.7	-4.3	0.5	1.5	1.7	2.3	2.9	4.5	1.3	1.7	1.2	-9.7	-19.6	-17.8	-15.9	-12.6	-13.9	-13.7
Barbados	2.4	3.6	3.8	-0.2	-5.5	-0.5	3.0	2.8	5.7	4.8	7.2	4.3	5.0	2.2	-5.2	-6.9	-4.5	-9.6	-5.8	-4.2	-4.2
Dominica	0.8	4.8	2.5	3.2	-0.3	1.4	2.5	1.5	1.8	6.0	2.1	3.2	1.5	1.5	-19.0	-15.7	-25.0	-31.8	-28.1	-25.4	-23.3
Dominican Republic	5.2	10.7	8.5	5.3	3.5	5.5	5.5	12.8	5.0	8.9	4.5	5.8	6.3	5.0	-0.8	-3.6	-5.3	-9.9	-4.6	-6.9	-6.3
Grenada	4.7	-2.3	4.9	2.2	-7.7	0.8	2.0	2.0	1.7	7.4	5.2	-2.4	4.7	2.0	-19.7	-33.2	-43.2	-38.7	-25.7	-25.0	-26.0
Haiti [4]	1.0	2.2	3.3	0.8	2.9	-8.5	9.8	16.5	12.4	7.9	19.8	-4.7	8.5	8.6	-0.7	-1.4	-0.3	-4.5	-3.2	-2.1	-3.7
Jamaica	0.7	3.0	1.4	-0.9	-3.0	-0.1	1.8	10.2	5.7	16.8	16.8	10.2	10.2	5.3	-5.9	-10.0	-16.5	-18.3	-10.5	-7.7	-7.3
St. Kitts and Nevis	3.7	2.6	4.2	4.6	-5.5	-1.5	0.5	3.6	7.9	2.1	7.6	1.0	2.2	2.5	-25.6	-20.4	-24.0	-34.2	-26.4	-24.7	-22.8
St. Lucia	1.7	4.8	1.5	0.7	-5.2	1.1	2.3	2.4	0.7	6.8	3.8	1.0	1.9	2.1	-13.6	-30.2	-31.3	-30.7	-20.0	-21.2	-22.1
St. Vincent and Grenadines	3.1	7.6	8.0	-0.6	-1.0	0.5	2.0	1.8	4.8	8.3	8.7	-1.6	1.9	2.9	-18.4	-23.7	-34.6	-35.2	-34.7	-48.3	-33.0
Trinidad and Tobago	7.9	13.2	4.8	2.4	-3.5	1.2	2.5	4.6	9.1	7.6	14.5	1.3	10.4	6.0	3.7	39.6	24.8	31.3	9.0	17.8	16.7
Memorandum:																					
Latin America and the Caribbean	3.0	5.6	5.7	4.3	-1.7	5.7	4.0	9.8	5.1	6.3	8.2	5.0	6.8	6.0	-1.5	1.6	0.4	-0.7	-0.6	-1.2	-1.6
(Simple average)	3.2	5.7	5.4	3.6	-1.4	2.7	3.6	8.4	5.5	7.9	8.9	2.8	5.9	5.0	-6.6	-5.0	-7.5	-9.6	-6.9	-7.1	-7.0
LA-7 [5]	2.9	5.5	5.7	4.2	-2.0	6.0	4.1	2.9	5.5	5.7	4.2	-2.0	6.0	4.1	87.7	105.5	111.6	116.3	114.0	120.8	125.7
East Caribbean Currency Union [6]	3.0	6.6	5.6	1.9	-6.7	-1.0	2.1	1.5	2.8	5.8	4.2	0.7	1.5	2.7	-17.5	-30.9	-35.4	-36.9	-26.7	-25.4	-22.5

Source: IMF staff calculations.
[1] Regional aggregates calculated as PPP GDP-weighted averages, unless otherwise noted.
[2] End-of-period (December) rates, These will generally differ from period average inflation rates reported in the IMF, *World Economic Outlook*, although both are based on identical underlying projections.
[3] Private analysts estimate that consumer price index inflation has been considerably higher. The authorities have created a board of academic advisors to assess these issues. Private analysts are also of the view that real GDP growth has been lower than the official reports since the last quarter of 2008.
[4] Fiscal year data.
[5] Includes Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela. These comprise the seven largest economies in Latin American and the Caribbean.
[6] Includes Anguilla, Antigua and Barbuda, Dominica, Grenada, Monseratt, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines.

Latin America and the Caribbean

Main Fiscal Indicators [1]

	Public Sector Revenue (Percent of GDP)					Public Sector Primary Expenditure (Percent of GDP)					Public Sector Overall Balance (Percent of GDP)					Public Sector Primary Balance (Percent of GDP)					Public Sector Gross Debt (Percent of GDP)				
	2007	2008	2009	2010 Proj.	2011 Proj.	2007	2008	2009	2010 Proj.	2011 Proj.	2007	2008	2009	2010 Proj.	2011 Proj.	2007	2008	2009	2010 Proj.	2011 Proj.	2007	2008	2009	2010 Proj.	2011 Proj.
North America																									
Canada [2]	40.7	39.8	38.3	37.8	38.0	35.0	35.7	40.0	39.1	37.4	1.6	0.1	-5.5	-4.9	-2.9	2.2	0.1	-4.6	-4.5	-2.8	65.1	69.8	81.6	81.7	80.5
Mexico	21.4	22.9	22.2	22.0	21.9	20.1	21.5	24.5	23.7	23.0	-1.3	-1.4	-4.9	-3.6	-3.1	1.4	1.3	-2.3	-1.7	-1.1	38.2	43.3	44.9	45.2	45.7
United States [2]	33.9	32.4	30.4	30.3	31.5	33.6	36.3	40.7	39.0	38.5	-2.7	-6.7	-12.9	-11.1	-9.7	-0.6	-4.7	-11.2	-9.5	-8.0	62.1	71.1	84.3	92.7	99.3
South America																									
Argentina [3]	31.5	33.4	33.9	34.6	34.6	29.1	30.6	33.8	34.7	34.7	-2.1	-0.3	-3.7	-3.5	-3.8	2.4	2.7	0.2	-0.1	-0.1	67.9	59.6	59.0	52.2	48.1
Bolivia	34.4	38.9	36.0	34.3	34.6	29.3	32.6	33.8	33.5	33.6	2.6	4.3	0.6	-0.8	-0.4	5.1	6.3	2.2	0.7	1.1	40.9	37.5	40.5	37.8	36.2
Brazil	35.7	36.6	36.1	36.3	36.5	32.2	32.5	33.9	33.0	33.3	-2.6	-1.3	-3.2	-1.7	-1.2	3.4	4.1	2.1	3.3	3.2	65.2	64.1	68.9	66.8	66.6
Chile	28.8	27.2	21.7	24.0	24.6	19.8	22.3	25.5	25.2	24.9	8.4	4.3	-4.3	-1.6	-0.6	9.0	4.8	-3.8	-1.2	-0.3	4.1	5.2	6.2	7.6	6.9
Colombia	27.2	26.6	26.7	24.8	25.3	24.2	23.0	26.0	25.0	25.9	-1.0	0.1	-2.5	-3.5	-3.9	3.0	3.6	0.7	-0.2	-0.6	32.5	32.3	35.2	35.7	36.3
Ecuador	29.0	33.7	28.1	30.4	30.7	24.9	33.1	31.7	31.9	30.2	2.2	-0.8	-4.2	-2.2	-1.1	4.1	0.5	-3.6	-1.4	0.5	26.7	21.1	14.7	13.7	13.5
Guyana [4]	28.3	27.7	28.9	28.9	29.9	30.8	29.6	30.7	30.8	31.9	-4.3	-3.6	-3.5	-3.7	-3.6	-2.5	-1.9	-1.9	-1.9	-2.0	60.0	61.6	60.5	63.9	67.7
Paraguay	21.2	20.9	23.2	23.2	23.2	18.8	17.3	22.1	22.3	22.7	1.5	3.0	0.5	0.5	-0.1	2.4	3.6	1.2	1.0	0.5	21.9	19.1	18.0	17.1	16.4
Peru	20.9	21.0	18.9	19.9	20.1	16.0	17.3	19.8	19.6	19.1	3.2	2.2	-2.1	-0.8	-0.1	5.0	3.7	-0.8	0.3	1.0	30.9	25.7	27.4	25.4	23.6
Suriname	30.5	27.5	33.0	28.4	26.9	26.9	24.9	33.0	31.2	27.9	2.2	2.0	-1.6	-4.1	-2.5	3.7	2.6	-0.1	-2.9	-1.1	21.1	18.1	20.3	22.9	24.7
Uruguay [5]	30.7	28.9	30.4	31.8	31.7	27.3	27.6	29.3	29.3	29.4	0.0	-1.5	-1.7	-0.6	-0.9	3.4	1.4	1.1	2.5	2.3	63.0	61.6	60.7	55.9	52.1
Venezuela	33.3	31.6	24.9	35.2	36.2	34.5	32.8	31.5	37.2	38.4	-2.9	-2.7	-8.2	-3.8	-3.5	-1.2	-1.2	-6.7	-2.0	-2.2	30.9	24.6	36.4	34.8	38.9
Central America																									
Belize [6]	28.2	28.7	26.4	27.4	27.5	24.4	24.4	24.5	26.0	26.0	-0.7	0.4	-1.6	-2.5	-2.8	3.8	4.2	1.9	1.4	1.5	84.8	78.2	80.2	78.1	77.2
Costa Rica [4]	23.3	23.4	22.3	22.9	23.5	18.0	20.0	23.1	24.9	25.4	1.9	0.7	-3.2	-4.7	-4.4	5.3	3.4	-0.8	-2.0	-1.9	29.6	26.0	28.0	29.5	31.6
El Salvador [4]	16.5	16.0	15.4	16.5	17.5	15.9	16.3	18.5	19.1	19.0	-1.9	-2.6	-5.6	-4.9	-4.4	0.6	-0.3	-3.1	-2.6	-1.5	38.8	39.7	48.5	50.0	51.0
Guatemala [6]	12.8	12.0	11.1	11.3	11.7	12.8	12.3	12.8	13.2	13.1	-1.4	-1.6	-3.1	-3.4	-3.1	0.0	-0.3	-1.7	-1.8	-1.4	21.3	19.9	23.0	24.5	26.1
Honduras	24.4	26.3	24.8	24.5	24.5	25.2	27.3	28.7	27.2	26.2	-1.6	-1.7	-4.6	-3.7	-3.1	-0.8	-1.0	-3.9	-2.7	-1.8	19.7	20.2	23.7	26.1	27.2
Nicaragua [5]	30.3	29.3	28.8	31.0	31.1	26.7	28.1	29.5	29.6	29.9	2.1	0.0	-2.1	-0.1	-0.5	3.7	1.2	-0.7	1.4	1.1	83.0	76.2	81.3	67.2	67.8
Panama [8]	27.8	25.9	24.6	25.1	25.8	20.9	22.4	22.8	23.0	24.3	3.4	0.4	-1.0	-0.7	-1.0	6.9	3.5	1.8	2.2	1.5	48.5	41.2	39.9	40.0	36.5
The Caribbean																									
Antigua and Barbuda [6]	24.1	23.8	20.1	25.5	25.5	26.9	26.8	31.9	22.2	21.9	-6.4	-6.1	-19.6	-1.0	-0.6	-2.9	-3.0	-11.8	3.3	3.6	93.3	92.8	118.3	104.0	99.3
The Bahamas [6]	18.6	19.4	18.0	17.5	17.6	19.4	19.5	20.9	20.4	19.8	-2.5	-2.1	-4.9	-5.3	-4.8	-0.8	-0.1	-2.8	-2.9	-2.2	34.9	36.8	41.4	46.9	50.1
Barbados [9]	38.3	40.4	38.8	37.7	40.3	40.9	43.4	41.7	40.0	39.3	-6.2	-6.9	-7.2	-6.8	-3.6	-2.5	-3.0	-2.9	-2.3	1.0	86.2	95.7	104.9	111.6	113.3
Dominica [6]	44.6	46.2	46.8	43.9	42.7	40.0	43.0	43.9	42.7	41.7	2.2	0.9	0.8	-1.2	-0.6	4.6	3.1	3.0	1.2	1.0	90.9	84.9	83.8	83.1	81.2
Dominican Republic [9]	17.3	15.8	13.7	14.0	15.1	15.3	17.7	15.2	14.2	14.5	0.3	-3.5	-3.5	-2.3	-1.6	1.9	-1.8	-1.6	-0.2	0.6	20.3	25.3	28.4	29.0	22.0
Grenada [7]	27.1	29.4	28.5	28.2	28.3	32.9	32.4	32.3	27.9	26.3	-7.9	-5.1	-6.6	-2.9	-1.2	-5.8	-3.0	-3.8	0.3	2.0	111.0	102.2	122.3	119.1	116.3
Haiti [6]	15.8	15.1	17.9	24.3	28.5	14.5	17.5	21.5	26.6	31.8	0.2	-3.1	-4.4	-2.9	-3.9	1.3	-2.4	-3.6	-2.3	-3.3	34.9	37.7	24.8	25.9	27.7
Jamaica [7]	26.4	26.3	26.5	25.6	25.7	18.9	20.9	20.8	20.6	19.4	-3.9	-6.4	-9.9	-7.1	-3.2	7.5	5.4	5.7	5.1	6.3	111.5	120.0	134.0	135.7	131.6
St. Kitts and Nevis [7]	39.4	37.2	40.4	31.5	32.8	35.7	33.9	35.4	38.3	36.5	-4.8	-5.0	-3.1	-15.5	-13.1	3.6	3.3	5.0	-6.8	-3.8	181.3	170.0	184.7	196.3	204.9
St. Lucia [7]	28.3	29.9	29.7	31.7	31.1	25.5	27.6	32.2	34.8	32.6	-0.8	-1.1	-6.1	-7.2	-5.7	2.7	2.2	-2.5	-3.1	-1.5	66.5	66.2	74.7	79.1	80.7
St. Vincent and Grenadines [7]	31.0	34.5	34.9	35.0	33.0	31.9	33.1	35.4	44.4	34.1	-4.0	-1.7	-3.6	-13.4	-4.6	-1.0	1.4	-0.5	-9.5	-1.1	66.9	69.4	75.0	91.7	97.7
Trinidad and Tobago	33.3	40.1	32.5	34.8	31.9	27.5	29.5	37.2	36.0	35.7	3.7	8.8	-7.2	-4.2	-6.7	5.8	10.6	-4.6	-1.3	-3.8	28.9	25.3	32.4	39.2	42.5
ECCU [10]	30.6	31.5	31.2	31.4	31.1	31.1	31.7	34.8	33.6	30.9	-4.0	-3.6	-8.4	-6.6	-4.1	-0.4	-0.2	-3.6	-2.2	0.3	91.1	89.2	103.8	105.3	105.8
Latin America and the Caribbean																									
PPP GDP–weighted average	**28.7**	**29.5**	**28.4**	**29.2**	**29.4**	**26.0**	**26.9**	**29.0**	**28.8**	**28.7**	**-1.1**	**-0.8**	**-4.0**	**-2.7**	**-2.3**	**2.7**	**2.6**	**-0.5**	**0.5**	**0.7**	**47.3**	**46.8**	**50.1**	**48.8**	**48.5**
Simple average	**27.5**	**27.8**	**26.9**	**27.5**	**27.7**	**25.2**	**26.3**	**28.2**	**28.3**	**27.9**	**-0.7**	**-1.2**	**-4.4**	**-3.8**	**-3.0**	**2.2**	**1.5**	**-1.3**	**-0.9**	**-0.1**	**54.9**	**53.2**	**57.6**	**58.0**	**58.2**

Source: IMF staff calculations.

[1] Figures for overall public sector, including general government and public enterprises. Definitions of public sector accounts vary by country, depending on country-specific institutional differences, including on what constitutes the appropriate coverage from a fiscal policy perspective, as defined by IMF staff. All indicators reported on fiscal year basis. Regional aggregates are PPP GDP-weighted averages unless otherwise noted.

[2] Primary balance also excludes interest received.

[3] Federal government and provinces. Includes interest payments on accrual basis.

[4] Includes central government and national insurance scheme. Gross debt is for the nonfinancial public sector.

[5] General government only.

[6] Central government only. Gross debt for Belize includes both public and publicly-guaranteed debt.

[7] Central government for revenue, expenditure and balance accounts; public sector for gross debt.

[8] Fiscal data cover the nonfinancial public sector excluding the Panama Canal Authority.

[9] Overall and primary balances include off-budget and public-private partnership activities for Barbados and the nonfinancial public sector and quasi-fiscal balances for the Dominican Republic. Revenue and expenditure components of these items are not available and not included in the revenue and primary expenditure estimates.

[10] Eastern Caribbean Currency Union includes Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. Central government for revenue, expenditure and balance accounts; public sector for gross debt.

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