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Stabilization, Debt, and Fiscal Policy in the Caribbean

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Abstract

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Although Caribbean countries have been largely successful in bringing annual inflation down to single digits in recent years—regardless of their exchange rate regime—their growth rates have been disappointing and their public debt has risen rapidly. By 2003, 14 of 15 Caribbean countries ranked in the top 30 of the world’s highly indebted emerging market countries. Most of the increase in their public debt is accounted for by a deterioration in primary fiscal balances that has been largely due to a sharp increase in expenditures rather than a fall in revenues. With the countries of the region now increasingly facing unsustainable debt positions, innovative ways need to be found to raise their economic growth rates and generate fiscal savings to reverse the debt buildup, and to maintain or raise their current living standards.

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I. INTRODUCTION

This paper examines the macroeconomic performance of the Caribbean countries since the 1990s, with a special emphasis on their public debt accumulation. The majority of the Caribbean countries are characterized by high public debt. The rapid buildup of public debt is, in large part, accounted for by a deterioration in fiscal balances owing principally to a rise in expenditures rather than a fall in revenues. The rise in expenditures reflects both policy slippages and exogenous shocks. The main policy message of this study is that there is a critical need for fiscal consolidation and a reinvigoration of growth in the Caribbean countries to bring their debt back down to more sustainable levels.

The countries of the Caribbean region rank high on the Human Development Index, relative to other developing and emerging market economies. Average illiteracy rates are very low, and life expectancy at birth is high at nearly 70 years. In contrast, average poverty levels (based on national surveys) are high, with nearly 30 percent of the population below the poverty line. Income inequality, while not as severe as in South America, is significant. Per capita incomes range from US\$460 in Haiti to nearly US\$16,700 in The Bahamas, as indicated in Table 1. Although virtually all Caribbean countries are endowed with natural beauty and a warm climate that attracts tourists, only two countries—Trinidad and Tobago, and Suriname—have abundant natural mineral resources—petroleum and bauxite, respectively.

The record of the Caribbean region on the political front is relatively favorable. Caribbean countries score well, for example, on a “voice and accountability” measure that gauges the strength of political rights and civil liberties, scoring nearly 70 on a scale of 0 to 100 (see Table 1). A “government effectiveness” measure that attempts to capture the quality of public service provision, the quality of bureaucracy, the competence of civil servants, the independence of civil service with respect to political pressures, and the credibility of the government’s commitment to policies receives a lower score of 58 (out of a maximum of 100).

Inflation stabilization has been achieved in the overwhelming majority of countries. The newly independent countries (most of which gained independence in the 1960s and 1970s) tended to peg their exchange rates to those of their former colonial powers as a means of ensuring confidence in the local currency. Over time, some of the countries introduced a greater degree of flexibility in their exchange rate regimes, while others chose to peg their currencies to the U.S. dollar. Whatever the exchange rate regime, inflation in most countries has been kept under control—where control over inflation has been lost, credible efforts have been made to rein it in.

Since the late 1990s, the Caribbean countries’ access to international capital markets increased at the same time that their domestic financial markets were being developed. To pursue their economic goals and finance their development processes, governments began to develop their financial markets and borrow at home and abroad. Given the relatively low and stable inflation, the relative political stability of democratic regimes, and the development of

local and regional financial markets, governments have had relatively easy access to financial resources.

Since the mid-1990s, the average national public debt in the region has virtually doubled, rising to exceptionally high levels in many countries. At the same time, fiscal performance has deteriorated sharply. With the notable exceptions of Antigua and Barbuda, Guyana, and Jamaica, public debt was not a major economic problem until the mid-1990s.

The outline of the paper is as follows. Section II provides an overview of macroeconomic developments in 15 Caribbean countries over time, relative to each other, and relative to other developing countries. Section III focuses on the very highly indebted countries in the region and accounts for the factors that contributed to public debt accumulation in those countries. Section IV documents the revenue and expenditure developments in these very highly indebted countries, explores the sources of the fiscal expansion, and draws implications of the high debt levels for the countries' medium-term prospects. Section V presents the conclusions and policy implications.

II. MACROECONOMIC PERFORMANCE

GDP growth in the Caribbean region relative to other developing countries during 1980–2003 was low (Figure 1).² As shown in the first panel in Figure 1, the average Caribbean GDP grew at 2½ percent per annum during 1980–2003. Compared with other developing countries, this growth rate was only marginally higher than that of Latin America. Even the average rate of growth of all “small island states” in the world was higher than that of the Caribbean. At the other extreme, emerging Asian countries grew at nearly three times the pace observed in the Caribbean.³ The second panel in Figure 1 provides a similar comparison on a per capita basis. The performance of the Caribbean improves marginally, as it is now higher than the average of the small island states, in addition to Latin America, but lower than the other regional groupings.

While inflation rates are low and have fallen in recent years, public debt levels have risen to very high levels in most Caribbean countries (Table 2). The period since 1990 is divided into two subperiods: 1990–97 and 1998–2003, based on the *sharp increase in public debt levels*

² Countries included in each regional grouping in Figure 1 are listed in Annex I. The average numbers presented in Figure 1 are simple arithmetic means, so as to give equal weight to each country, irrespective of the population or size of the GDP.

³ Within the Caribbean, the countries in the Eastern Caribbean Currency Union (ECCU) grew at a much higher rate of 4 percent, comparable to the average of all developing countries. However, this relatively high number reflects the high growth rates in the 1980s; since the 1990s, growth has decelerated sharply.

observed in several countries in the second subperiod. Since 1998, average public debt to GDP ratio in the region grew rapidly, from 56 percent in 1997 to over 90 percent by 2003. While GDP growth rates in the two subperiods were similar at around 2½ percent per annum, the inflation performance improved significantly in the second subperiod: annual average inflation rates came down from over 16 percent in 1990–97 to 6½ percent in 1998–2003. In fact, if the Dominican Republic, Haiti, and Suriname are excluded, the average inflation in the region was only 2½ percent in the second subperiod.

Reflecting the debt buildup, fiscal accounts worsened sharply during 1998–2003 in the Caribbean region. *The average overall fiscal balance declined in every country* (apart from Haiti) during 1998–2003, compared to 1990–97 (Table 2). As public debt grew, interest costs also rose. Hence, part of the explanation for the deterioration in the overall fiscal balance is the rise in interest-related expenditures. However, looking at the overall balance *excluding* interest costs (defined as the primary fiscal balance), the performance is also worse in the second sub-period for *every* country (with the exception of Haiti, for which data are not available).

A. Does the Exchange Rate Regime Matter?

Until 2003, 11 of the 15 Caribbean countries maintained fixed exchange rate regimes (currency boards or a fixed peg to a major currency)—Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, the Dominican Republic (which floated its currency only in early 2003), Grenada, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Suriname. The remaining 4 countries—Guyana, Haiti, Jamaica, and Trinidad and Tobago—had more flexible regimes (managed or independent floating) for most of the period under study.⁴

Confirming the experience of other developing countries, inflation outcomes under fixed exchange rate regimes in the Caribbean countries were generally better than those under floating regimes⁵ (Table 3). In each of the subperiods, the average inflation rate was lower in countries with fixed exchange rate regimes than those with more flexible regimes. A common feature across the two sets of countries is that average rate of inflation declined in both groups in 1998–2003 as compared to 1990–97, reaching single-digit levels in the second subperiod. Under fixed exchange rate regimes, annual inflation declined from nearly 14 percent in 1990–97 to 6 percent in 1998–2003, while under the more flexible exchange rate regime, inflation fell from 23 percent in 1990–97 to less than 8 percent in 1998–2003. The rapid decline in inflation rates in countries with flexible exchange rates in the second subperiod is impressive.

⁴ Suriname has multiple exchange rates.

⁵ See Ghosh and others (2003) for similar evidence in other developing countries.

Countries under fixed exchange rate regimes grew faster in both the subperiods. However, the difference across the two subperiods for each group of countries is not high: the average GDP growth in countries with fixed exchange rate regimes rose from 2.6 percent per annum in 1990–97 to 2.8 in 1998–2003, while in countries with flexible exchange rate regimes, it fell from 1.9 percent per annum to 1.6 percent per annum.

Contrary to our expectations, average fiscal outcomes in countries with fixed exchange rate regimes were *worse* than those with flexible regimes. Fixed exchange rate regimes should instill greater macroeconomic discipline than flexible regimes since discretionary monetary policy is more constrained;⁶ however, this appears not to be the case in the region. The average overall fiscal deficit in the 11 countries with fixed exchange rate regimes was higher than in countries with flexible exchange rate regimes and has doubled in recent years—from 3 percent of GDP in 1990–97 to 6 percent of GDP in 1998–2003. In the four countries with more flexible regimes, the average overall deficit was somewhat lower at 2 percent and 5 percent of GDP, respectively, for the same sub-periods.

The most alarming development is in countries with fixed rate regimes—public debt has risen very rapidly—from just over 50 percent of GDP in the 1990–97 period to nearly 90 percent of GDP in the 1998–2003 period. Apart from the fact that these developments reflected a weaker fiscal performance in countries with fixed exchange rate regimes, they also indicate that countries with fixed regimes and a stable inflation environment were able to access the global financial markets more easily when global interest rates were falling. Average public debt levels have been much higher in the floating exchange rate regimes in both sub-periods, reflecting the predominance of the Jamaica-Guyana effects—the already high average level of public debt-to-GDP ratio (at over 120 percent of GDP) remained virtually unchanged between the two subperiods.

In sum, countries with fixed exchange rate regimes had lower inflation rates and marginally higher GDP growth rates; on the other hand, they had higher fiscal imbalances and built up public debt faster. In fact, the large historical buildup of debt and fiscal imbalances under fixed exchange rate regimes in Guyana and Jamaica during the 1980s and the consequent pressures on the exchange rate peg and foreign external reserves, led to their abandoning their fixed exchange rate regimes.

B. How Have the Caribbean Countries Performed Relative to Each Other?

The average performance of the Caribbean countries presented in Table 2 masks significant diversity of experience. To compare how each country performed relative to the other countries in the region, an index of macroeconomic performance, ranging from 0 to 100, with

⁶ Tornell and Velasco (2000) present the conventional wisdom that there is greater fiscal discipline under fixed exchange rate regimes than flexible regimes.

100 representing the best relative performance, was constructed.⁷ Figure 2 presents the relative ranking based on macroeconomic performance. At the outset, it should be pointed out that a low score on the macroeconomic performance index reflects both the effects of negative exogenous shocks as well as policy performance (for example, St. Kitts and Nevis, the country with the lowest score, most likely suffered the highest costs due to natural disasters during the period under consideration).⁸

Ranked relative to each other, Trinidad and Tobago and The Bahamas had the best macroeconomic performance, while St. Kitts and Nevis and Jamaica receive the lowest scores. The Dominican Republic ranks the third best because of its relatively good performance until the banking crisis in 2003. Both Trinidad and Tobago and Suriname (which is ranked fourth), countries with natural resources, are among the best performers. Of course, the existence of natural resources does not guarantee good macroeconomic performance—in fact, there is sufficient literature that provides arguments and evidence for a lower than average performance in resource-rich developing countries.⁹

Figure 3 refines the ranking in two ways—inflation performance is dropped and the primary fiscal balance (overall fiscal balance excluding interest payments) is added. This focuses on debt, fiscal, and growth performances. By this measure, The Bahamas is the best performer, while St. Kitts and Nevis continues to receive the lowest score. The striking change in rankings are in Belize which moves from the middle to the third lowest performer, while St. Lucia improves its ranking from ninth to fourth place.

III. FISCAL PERFORMANCE AND DEBT ACCUMULATION

We now focus on two main economic concerns, highlighted in the previous section, afflicting the region—the rise in public debt and fiscal expansion. Table 4 presents information on

⁷ The ranking was based on total public debt to GDP ratio in 2003, the absolute change in public debt ratio from 1990–97 to 1998–2003, overall fiscal balance (as a share of GDP) in 2003, absolute change in overall fiscal balance (as a share of GDP) from 1990–97 to 1998–2003, CPI inflation in 2003, absolute change in CPI inflation from 1990–97 to 1998–2003, real GDP growth in 2003, and absolute change in real GDP growth from 1990–97 to 1998–2003. Countries are ranked from 1 to 15 in each category, with the best performer receiving the highest score. The scores are then aggregated for each country, with the same weight given to each indicator of macroeconomic performance. Finally, the aggregate scores are normalized so that the scores for all countries range from 1 to 100.

⁸ Haiti is excluded from this comparison because data on public debt in the initial sub-period is not available.

⁹ See Sachs and Warner (1995).

public debt and primary fiscal balances in the Caribbean countries. The reason we focus on the primary fiscal balance, rather than the overall fiscal balance (recall that the latter includes interest payments, while the former does not) is that the primary balance corresponds more closely to the government's efforts in generating surpluses—and is therefore an indicator of the government's policy stance. Unless circumstances are dire, governments do not choose the level of interest payments—these depend on the level of debt accumulated from previous years.¹⁰

The Caribbean countries are among the most indebted emerging market countries in the world. As shown in Figure 4, 14 Caribbean countries are in the top 30 most indebted countries, while 7 are among the top 10.¹¹ Table 4a lists the countries according to their primary fiscal balance and public debt-to-GDP ratio in 2003. In general, public debt-to-GDP ratios over 50 to 60 percent are considered high. By that measure, only three countries have low debt—The Bahamas, Suriname and the Dominican Republic.¹² Four countries—Barbados, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago have debt in the range of 50 to 90 percent. The remaining seven countries—Antigua and Barbuda, Belize, Dominica, Grenada, Guyana, Jamaica, and St. Kitts and Nevis—have debt beyond 90 percent.¹³

Table 4a indicates that countries are generating much lower primary fiscal surpluses than is needed to bring debt down—in fact, 9 (of the 15) countries have primary fiscal deficits. Assessing the fiscal effort in these countries from Table 4a, only Jamaica generated primary surpluses of more than 5 percent of GDP in 2003. Four other countries—The Bahamas, Trinidad and Tobago, Dominica, and Grenada—had primary surpluses that were positive but less than 5 percent of GDP. The remaining nine countries registered primary deficits. Deficits on the primary balance are sufficient evidence to infer that debt levels will rise in those countries. In fact, when debt levels are high, large primary surpluses must be run to prevent a further increase in the debt stock. The magnitude of the primary surpluses needed increases with interest rates and the size of the debt stock, but is reduced by real exchange rate

¹⁰ However, through active debt management, debt service, or interest costs could be reduced—for example, by lengthening the maturity and contracting new debt at lower interest rates.

¹¹ Strictly speaking, we should exclude Guyana and Haiti from this list because these two countries do not have access to private capital and would not be considered emerging market countries.

¹² The Dominican Republic's painful experience in 2003 indicates that ensuring low public debt alone is not sufficient to avoid crises—weaknesses in the banking sector need to be independently addressed.

¹³ Since data on primary balances in Haiti are not available, it is excluded from Table 4.

appreciation and real GDP growth. Thus, for example, even though Jamaica has generated primary surpluses in the range of 8–13 percent of GDP for many years, public debt has continued to rise because of high interest costs and low growth.

Table 4b confirms that the average performance on primary fiscal balance and public debt during 2001–2003 is similar to that reported in Table 4a in 2003. The pattern and cell entries in both tables are identical, with the exceptions of Suriname, Dominica, and the Dominican Republic.¹⁴ In Suriname, fiscal performance worsened in 2003, while in Dominica, which has a Fund-supported stabilization and growth program, the primary balance registered a sharp improvement in 2003. Public debt in the Dominican Republic increased sharply following the banking crisis in 2003.

A. What Accounts for the Rise in Public Debt in the Average Caribbean Country?

To shed light on this question we focus our analysis on the very highly indebted six countries—those with public debt to GDP ratios that exceeded 90 percent at end-2003. These countries are Antigua and Barbuda, Belize, Dominica, Grenada, Jamaica, and St. Kitts and Nevis—henceforth called the “Caribbean-6.”¹⁵ A debt accounting exercise is employed to decompose the sources of the public debt build up in these countries.¹⁶

Equation (2) in Annex II can be used to analyze the public debt accumulation process of the Caribbean-6.¹⁷ The analysis is divided into two sub periods, 1991–97 and 1998–2003 to mark the timing when debt began to rise sharply in most countries. Table 5 presents the results obtained from estimating Equation (2) for the average debt accumulation in the six countries.

During the 1991–97 period, average public debt to GDP ratio in the Caribbean-6 did not grow, while during 1998–2003 it rose rapidly—by 8.5 percent of GDP *per year*. Of this 8.5 percent, more than half—4.5 percent of GDP is accounted by the deterioration of fiscal primary balances (excluding grants) and 3.3 percent of GDP by the net effect of interest

¹⁴ Dominica, the Dominican Republic, and Suriname are italicized in Tables 4a and 4b to indicate that their relative positions have changed over time.

¹⁵ Even though the public debt-to-GDP ratio is very high in Guyana, it is a special case as it is receiving debt relief under the HIPC initiative. Barbados, although not included, has a high debt level of 84 percent of GDP.

¹⁶ A more extensive discussion of the economic issues in the ECCU countries—Antigua and Barbuda, Dominica, Grenada, and St. Kitts and Nevis—is available in IMF (2004).

¹⁷ See Helbling, Mody and Sahay (2004) for a detailed discussion on the debt accounting exercise.

payments and output growth. The price effect (due both to inflation and appreciation of the real exchange rates) and grants together helped reduce the debt ratio by 3 percent of GDP. “Events” (such as the assumption of government guaranteed debt of the private sector) and measurement error explain 3½ percent of GDP per year. Given that the measurement errors are positive, it indicates that the fiscal accounts consistently understated the accumulation of debt.

There are three notable changes from the 1991–97 subperiod to the 1998–2003 subperiod: (a) the significant worsening of the primary balance and its relative contribution to debt accumulation; (b) the rise in interest costs relative to GDP growth; and (c) measurement error, indicating a possible underestimation in recording the magnitude of the fiscal deficits in the second subperiod or the realization of government guaranteed debt in the first subperiod.

B. What Do the Individual Country Data Tell Us?

St. Kitts and Nevis had the highest public debt to GDP ratio at 160 percent at end-2003, but this ratio rose most rapidly in Grenada between 1997 and 2003 (growing by 13.2 percent of GDP per year). Table 6 compares the performance across the six countries analyzed in this section. Jamaica stands out as the only country that generated primary fiscal surpluses in both sub-periods, averaging nearly 8½ percent of GDP per year during the entire 1991–2003 period. Virtually all other countries registered primary fiscal deficits in both sub periods.

In the case of Jamaica, the sharp increase in the interest payments component was the most important factor for the rapid public debt accumulation between 1997 and 2003. In fact, interest payments rose by 8.8 percent per year between the two sub periods, nearly equaling the rise in debt to GDP ratio per year.¹⁸ This rise in interest payments occurred during a period when global interest rates were falling, indicating the importance of country-specific factors in affecting interest costs. In all other countries except Antigua and Barbuda, interest payments also increased, contributing positively to the debt accumulation.¹⁹

¹⁸ The increase in the interest payments component has to do both with an increase in interest rates and with a higher public debt to GDP ratio. The latter is partly related to a major bail-out of domestic financial institutions in 1996–97, which generated substantial fiscal costs in subsequent years. It is worth mentioning that the low value of the interest payments component observed in the first subperiod is the result of the substantial decline in the U.S. dollar value of domestic currency debt observed in 1991 as a consequence of the large depreciation of the Jamaican currency that occurred that year.

¹⁹ Antigua and Barbuda’s debt was, in part, restructured and reduced while arrears have been incurred on most public sector debt.

In summary, *the single most important factor contributing to the rise in the public debt to GDP ratio in all cases, except Jamaica, is the deterioration in the primary balance* (including and excluding grants). In the case of Jamaica, the sharp rise in interest costs has equaled the increase in public debt to GDP ratio. In virtually all countries, output growth helped reduce the debt in both sub periods. However, there was substantial variation across countries in the quantitative contribution of GDP growth in reducing debt to GDP ratios.

IV. FISCAL EXPANSION: POLICY SLIPPAGES VERSUS EXOGENOUS SHOCKS

The rapid buildup of public debt in the very highly indebted countries—the “Caribbean-6”—since 1997 is in large part accounted for by a deterioration in fiscal balances. This section explores whether the deterioration stemmed from revenue declines or expenditure increases. Also, to what extent did the fiscal deterioration occur due to unanticipated shocks versus fiscal policy slippages?

A. Did Government Revenues Fall, or Did Expenditures Rise?

In the 1998–2003 sub-period, the overall fiscal balance deteriorated in each of the Caribbean-6 cases, mostly on account of a rise in expenditures. Figure 5 and Table 7 summarizes developments in overall fiscal balances, central government revenues and expenditures in the six countries. Except in Belize and Antigua and Barbuda, where revenues as a share of GDP declined in the second sub-period, in all other countries they rose or stayed the same. On the other hand, there is clear evidence that expenditures rose quite sharply in virtually all countries. Total current expenditures increased in all cases except Grenada, while capital expenditures also rose in all countries, except Jamaica. Within current expenditures, interest expenditures rose in all six countries, while the noninterest component rose in four countries (exceptions were Belize and Grenada).

B. Did Exogenous Shocks Contribute to Expansionary Fiscal Policy?

Quantifying the full effects of exogenous shocks on fiscal planning is difficult. There are many sources of shocks and many of them are not easily observable (such as productivity shocks). Moreover, the authorities do not categorize expenditures separately for the shocks. Finally, second-round indirect effects of shocks that can be observed cannot be easily accounted for. Hence, the attempt in this sub-section is simply to provide a qualitative analysis to the extent possible, given the information at hand.

Many types of unanticipated shocks can affect fiscal management in Caribbean countries. First, *global interest rates* can increase, raising interest payments unexpectedly. Second, *oil price hikes* are a major supply shock that can slow down economic growth and reduce government revenues when increases in international oil prices are not fully passed through to domestic prices. Third, *a slow down in global economic growth* can adversely affect small open economies that depend heavily on external demand for their products, such as tourism. Fourth, *terms of trade shocks* such as secular declines in the price of banana, sugar, and

cotton can also decrease the growth potential and a permanent source of revenues. Finally, *natural disasters*, and many Caribbean countries are prone to them, can have devastating effects on economies. We look at each of these factors in turn by asking whether there was a *perceptible change* in the nature or frequency of the shocks during 1998–2003 as compared to 1991–97 that caused fiscal imbalances to rise in the second sub-period?

Figure 8a shows developments in the average Caribbean growth rates (for all 15 countries)—and world rates as measured by the 6-month LIBOR (London inter-bank offer rate). Figure 8b focuses on the Caribbean-6 from 1990, and also shows developments in interest-related current expenditures. There was an increase in interest payments during the 1998–2003 sub-period in the Caribbean-6 countries, even though global interest rates were *declining* during that period. Interest payments rose in the 1998–2003 period, primarily because the Caribbean countries were able to place greater volumes of debt in international markets as global investors appear to have been rebalancing their portfolios in the aftermath of the financial crises in 1997 in Asia, 1998 in Russia, and Argentina in 2001. Domestic borrowings also increased as local financial markets deepened. Counter-intuitively, there appears to be a *positive* relationship between the Caribbean growth rates (both the Caribbean-15 and Caribbean-6) and world interest rates. This can happen if growth is influenced by policy—public sector expansion, or structural reforms that benefit private sector investments.

Figure 9a shows developments in oil prices since 1980 and GDP growth in the 15 Caribbean countries, while Figure 9b focuses on the Caribbean-6 since 1990. While there is a negative relationship between oil prices and GDP growth rates in the wider Caribbean, this relationship is weaker for the Caribbean-6, reflecting in part that increases in international oil prices were not fully passed through to domestic prices in the highly indebted countries.

The co-movement between industrial countries' GDP growth rates and both the wider Caribbean's and the Caribbean-6's is striking (Figure 10). In most countries, the key source of growth is the tourism sector. Figure 11 shows how the various tourism indicators evolved in the Caribbean-6 countries. Antigua and Barbuda, Belize, and St. Kitts and Nevis seem to have lost competitiveness in attracting tourists.

Of the Caribbean-6 highly indebted countries, Dominica (bananas), Belize and St. Kitts and Nevis (sugar) have been affected by the dismantling of preferential trade agreements through the 1990s.²⁰ Figure 12 illustrates price movements for bananas and sugar—in the case of sugar, the key concern is the decrease in the volumes that can be exported in the protected (higher price) markets in Europe. While these shocks are permanent in nature, they have been anticipated for some time and prices have been declining slowly. They have affected both the production and profits of the agricultural sector as well as government revenues from this sector. The impact on the economies is hard to assess, but limited evidence indicates that

²⁰ Grenada is also a banana producer, although over time it has successfully diversified away from this activity.

they have generated significant fiscal losses. In St. Kitts and Nevis, for example, the state-owned sugar industry has suffered losses of 3 to 4 percent of GDP per year in the last several years.

Finally, natural disasters have frequently affected the Caribbean countries, triggering disaster management and reconstruction expenditures. Figure 13 provides evidence that the frequency of natural disasters was higher in the second half of the 1990s than in the first half, with the exception of Jamaica. However, sufficient information do not exist to infer whether the severity of the natural disasters and the associated fiscal costs were higher in the second subperiod.

Table 8 provides a summary picture of exogenous shocks in the Caribbean-6. The two shocks that did affect the fiscal balances more negatively in the second subperiod are natural disasters and the decline in preferential agreements. On the other hand, higher oil prices in the second subperiod do not appear to have caused the slow down in growth or an increase in current expenditures in that period. The rise in interest expenditures during the second subperiod was also not caused by a rise in global interest rates (since interest rates actually declined during that subperiod), but by the increase in the stock of debt. Given the high correlation between growth in the Caribbean and the industrial countries, the Caribbean should have grown faster as GDP growth in industrial countries was somewhat higher in the second subperiod. However, the September 11th shock to tourism economies directly reduced growth in 2001–2002.

The conclusion is that the rapid increase in fiscal expansion in recent years appears to be related to policy slippages, insufficient fiscal planning for *anticipated* adverse shocks, and, to some extent, unanticipated shocks. The decline in preferential access was an anticipated adverse shock. In fact, some countries began to adjust their production structures in anticipation of this shock in the 1980s. Given the high frequency of natural disasters, countries should have saved in good times to be able to cover, at least in part, expenditures related to natural disasters. In contrast, the September 11th attack on the U.S. was an unanticipated shock that slowed down growth significantly for 18 months or so in the tourism-dominated economies.

C. Debt Sustainability in the Very Highly Indebted Countries

Going forward, the implications for sustaining public debt at such high levels in the Caribbean-6 are grave. Table 9 presents an analysis of public debt sustainability in the Caribbean-6 countries, based around three questions: (i) what is the primary fiscal surplus needed to reduce public debt to GDP ratio to 60 percent in five years;²¹ (ii) what is the

²¹ While the target debt ratio could be higher or lower than 60 percent of GDP and acceptable levels do depend on the specific circumstances of each country—see Reinhart et. al. (2003), the Eastern Caribbean Currency Union countries set this goal in 1998 for themselves, as did the European Union countries in the context of setting their convergence criteria.

primary surplus needed to prevent debt from rising and simply stabilize it at the current (very high) levels; and (iii), if current policies are pursued, what would be the level of debt by 2008? The estimates require assumption on the future path for GDP growth and interest rates, which are detailed in Table 9a. In essence, it is assumed that both growth and interest rates would be at historical levels—that is, at the average of the last five years.

As shown in Table 9b, to reduce debt to 60 percent of GDP over the next five years, the primary surpluses needed are exceptionally large, requiring a substantial turnaround in all six countries. Jamaica would need to generate the highest primary fiscal surpluses—23 percent of GDP in each of the next five years, followed closely by St. Kitts and Nevis at 21 percent, then by Dominica (17 percent), Antigua and Barbuda (11 percent), Grenada (9½ percent), and Belize (4 percent). These are extremely demanding fiscal efforts by any standards. Compared to the current levels of primary fiscal balances, these would require a substantial increase or turnaround (over 10 percent of GDP) in primary balances in all countries.

To stabilize public debt at today's level, four countries would still need to increase primary fiscal balances beyond their current levels. Suppose the countries were less ambitious and aimed merely to prevent debt from rising further. The second column in Table 9b indicates how much primary surplus would need to be generated to stabilize debt at current levels. Four countries—St. Kitts and Nevis, Dominica, Antigua and Barbuda, and Belize would still have to increase their primary balances beyond their current levels, although by more modest amounts than if they were planning to reduce the public debt to GDP ratios substantially. While this may be an interesting hypothetical question, it is certainly not advisable to have such a modest goal. The main reason is that countries with such high debt levels are extremely vulnerable to even otherwise small shocks and to financial crises.

If policies followed in the last five years were to continue in the medium term, public debt would rise to extreme levels and endanger macroeconomic stability. If current policies are measured by their current primary fiscal balance, debt in all countries would remain in the triple digit range, rising significantly in four of the six countries by 2008.

V. TAKING STOCK: CONCLUSION AND POLICY IMPLICATIONS

The majority of Caribbean countries are characterized by high public debt, and reducing public debt should be a key macroeconomic goal going forward. Although there are differences in performance across countries, a common feature of all countries in the last five years has been the deterioration in fiscal positions. Today, 14 of the 15 Caribbean countries are among the 30 most indebted emerging market countries in the world. Given the large vulnerabilities emanating from exogenous shocks in the region and the high debt, the probability of financial crises has risen. The potential problems faced by governments could get compounded, since social security funds or public commercial banks have typically financed the fiscal deficits in several countries.

There are five key elements of efforts to successfully reduce public debt to more sustainable levels and help countries achieve their growth potential. These are *fiscal consolidation*, *prudent debt management strategies*, *asset sales/privatization*, *reducing vulnerabilities to exogenous shocks*, and *growth-enhancing structural reforms*. Given the exceptionally high levels of debt in many countries, a combination of these elements is needed.

One of the most important messages derived from the analysis presented in this paper is the need for fiscal consolidation—the average fiscal deficit of nearly 6 percent of GDP at the end of 2003 is very high by any standard. Several developments were noted: average fiscal performance in every country deteriorated in 1998–2003, compared with 1991–97; a rise in expenditures, rather than a fall in revenues, was the main cause of the worsening of the fiscal accounts; and, notably, interest payments have steadily risen during the latter period, when global interest rates have been on a downward trend. Going forward, the scope for sustaining such expansionary fiscal policies is limited because not only have public debts risen rapidly but the global financial environment has been turning unfavorable. Moreover, cross-country studies have shown that fiscal consolidation can help raise growth rates by increasing the credibility of economic reform programs, thereby attracting foreign investors and creating room for the private sector to flourish.²²

Given the Caribbean region's high human development indices and natural tourist attractions, its economic growth potential clearly has not been fully exploited. Some of the key ways in which reforms can help its countries achieve their growth potential or even expand it are to increase labor market flexibility; achieve greater regional cooperation in the economic spheres; create an enabling environment for the private sector—especially the local private sector; and reduce the role of the public sector, including the high levels of employment in the government sector, in their economies.

Active debt management can help lengthen maturities of debt and reduce the overall cost of servicing the debt. Many countries are already involved in active debt management. Dominica has embarked on a debt-restructuring strategy that involves both official and private sectors; Guyana reached the HIPC (World Bank-IMF Initiative for Heavily Indebted Poor Countries) completion point recently, which involved debt forgiveness. Debt restructuring and debt forgiveness are, however, typically one-time events that follow a series of large exogenous shocks or recurrent policy slippages. Many others (St. Kitts and Nevis, and St. Lucia) are lengthening the maturities, and reducing the average interest costs of their debts by replacing high-interest-bearing and short-term debt with lower-interest-bearing and long-term debt. The room for such active debt management, however, will remain limited, especially as global interest rates rise.

The scope for raising revenues and retiring debt stock through asset sales and privatization varies widely across countries, but these steps cannot be relied upon to produce large

²² See Gupta and others (2002) and Baqir, Ramcharan, and Sahay (2004).

reductions in debt. There are three lessons from previous asset sales/privatization experience of other developing, market-based economies: first, privatization receipts in general have been disappointingly low, rarely exceeding 5 percent of GDP at any point in time. Second, to maximize revenues, privatization schemes need to be carefully planned and distress sales should be avoided. Third, the privatization process should be transparent to ensure that the process is conducted fairly.

The Caribbean region is highly vulnerable to adverse exogenous shocks. *Natural disasters* are common in the Caribbean region—hurricanes, floods, and crop disease have been known to disrupt lives and fiscal planning only too often. Disaster mitigation and management capacities are still relatively weak and need to be strengthened. In addition, the Caribbean region is highly susceptible to the *external global environment*—the threat of terrorist attacks, global slowdown of growth, rising interest rates, and petroleum price hikes. Countries also need to adjust to the anticipated and continuing shock of the *dismantling of the preferential access* of their traditional agricultural commodities to industrial countries.

Vulnerability to external shocks is compounded by existing domestic vulnerabilities. Domestic vulnerabilities include weaknesses in financial systems, very high debt, large fiscal deficits, and the combination of a fixed exchange rate regime and high debt. Financial sector weaknesses include large holdings of government paper by public pension systems and domestic banks, poor-quality loan portfolios, and weak financial sector regulation and supervision. The recent crisis in the Dominican Republic revealed only too painfully how a relatively well-performing country can face a crisis because of weaknesses in its financial sector. The earlier banking crisis in Jamaica had a similarly disruptive effect on the economic reform strategy. The Asian crises of the 1990s and the crises in Jamaica and Argentina showed that countries with fixed exchange rate regimes, large fiscal deficits, and very high debts are particularly vulnerable to currency attacks. There are at least two lessons to be learned from other countries' experience with financial crises: first, addressing domestic vulnerabilities *ex ante* will go a long way toward preventing crises and avoiding the devastating effects of financial crises; second, financial *crisis-management capacity* should be built up so the country can respond effectively in the event a crisis cannot be avoided.

In conclusion, the Caribbean region has the natural and human resources to grow faster and further raise its already high standard of living. Given the existing economic weaknesses in most countries, decisive policy actions on several fronts are needed now if they are to achieve their economic potential.

I. REGIONAL GROUPINGS

ECCU

Antigua and Barbuda
 Dominica
 Grenada
 St. Kitts and Nevis
 St. Lucia
 St. Vincent and the Grenadines

The Caribbean

Antigua and Barbuda	Grenada	St. Vincent and the Grenadines
Bahamas, The	Guyana	Suriname
Barbados	Jamaica	Trinidad and Tobago
Belize	Haiti	
Dominica	St. Kitts and Nevis	
Dominican Republic	St. Lucia	

Latin America and The Caribbean

Antigua and Barbuda	Dominican Republic	Nicaragua
Argentina	Ecuador	Panama
Bahamas, The	El Salvador	Paraguay
Barbados	Grenada	Peru
Belize	Guatemala	St. Kitts and Nevis
Bolivia	Guyana	St. Lucia
Brazil	Haiti	St. Vincent and the Grenadines
Chile	Honduras	Suriname
Colombia	Jamaica	Trinidad and Tobago
Costa Rica	Mexico	Uruguay
Dominica	Netherlands Antilles	Venezuela

Small Island States

Antigua and Barbuda	Guinea-Bissau	Seychelles
Bahamas, The	Guyana	Solomon Islands
Barbados	Haiti	St. Kitts and Nevis
Belize	Jamaica	St. Lucia
Cape Verde	Kiribati	St. Vincent and the Grenadines
Comoros	Maldives	Suriname
Cyprus	Malta	Tonga
Dominica	Mauritius	Trinidad and Tobago
Dominican Republic	Papua New Guinea	Vanuatu
Fiji	Samoa	
Grenada	São Tomé and Príncipe	

Emerging Asia

Bangladesh	Lao PDR	Samoa
Bhutan	Malaysia	Solomon Islands
Cambodia	Maldives	Sri Lanka
China	Myanmar	Thailand
Fiji	Nepal	Tonga
India	Pakistan	Vanuatu
Indonesia	Papua New Guinea	Vietnam
Kiribati	Philippines	

II. ACCOUNTING FOR PUBLIC SECTOR DEBT

Equation (1) describes the accumulation of public sector debt, with variables measured in foreign currency (for the calculations, the U.S. dollar is used as the foreign currency. Below we use foreign currency and U.S. dollar interchangeably). F_t and D_t are, respectively, foreign and domestic public debt at the beginning of period t , with the latter denominated in domestic currency. S_{t+1} is the nominal exchange rate at the beginning of period $t+1$ measured in units of foreign currency per unit of domestic currency. $GBAL_t$ is the government's primary fiscal balance during period t , while $GRANTS_t$ represents the grant component of government revenue, which can be used to finance deficits without creating new debt. The interest rate on domestic currency denominated debt is denoted by i_t , while r_t denotes the interest rate on foreign currency denominated debt. Finally, EVT_t (event) represents any event that does not appear in the fiscal accounts but modifies the public debt at time t .²³

$$S_{t+1}D_{t+1} + F_{t+1} = (1 + i_t)S_{t+1}D_t + (1 + r_t)F_t - GBAL_t - GRANTS_t + EVT_t \quad (1)$$

In equation (2) below, this study expresses variables in equation (1) as shares of GDP. Let Z_t denote the country's GDP in U.S. dollars. Thus, $Z_t = Y_t * P_t$, where Y_t is the real GDP and P_t is the U.S. dollar price index. Dividing both sides of Equation (1) by Z_t and rearranging terms

we obtain equation (2), where $b_{t+1} \equiv \frac{B_{t+1}}{Z_t} \equiv \frac{S_{t+1}D_{t+1} + F_{t+1}}{Z_t}$ is the public debt to GDP ratio at

the beginning of period $t+1$, and $gbal_t$, $grants_t$, and evt_t are, respectively, the primary balance (excluding grants), grants, and value of "events" as shares of GDP. \hat{Y}_t and \hat{P}_t denote, respectively, the percent change of real output and of U.S. dollar-denominated prices.²⁴

²³ Several events can be identified: Antigua and Barbuda reduced its debt by more than 13 percent of GDP in 1998 by negotiating with its creditors on reducing its arrears; in Belize, previously unaccounted debt became publicly guaranteed during the privatization of the electricity and water companies (1999–2002); the government in Grenada borrowed more than 10 percent of GDP in 2002 to terminate lease arrangements that had not been previously included as debt; in Jamaica public contingent liabilities were recognized over time; and public enterprises in St. Kitts and Nevis increased their debt by nearly 9 percent of GDP in 1997.

²⁴ Changes in domestic prices when measured in U.S. dollars can occur either because domestic prices change relative to foreign prices (i.e., changes in the real exchange rate) or due to inflation of U.S. dollar denominated prices (in this case both foreign and domestic prices change at the same rate). The second effect is usually larger in absolute value than the first effect, but it is also more stable. On the other hand, the first effect, although in general

(continued...)

Finally, $\bar{r}_t \equiv (1 - \alpha_t)i_t + \alpha_t r_t + (1 - \alpha_t)(1 + i_t)s_t$ is the *U.S. dollar* interest rate, with α denoting the share of foreign currency debt in the total of public debt. Notice that the last term of the formula captures the change in the value of domestic currency debt due to changes in the nominal exchange rate—the “price effect”:

$$b_{t+1} - b_t = -gbal_t - grants_t + \frac{\bar{r}_t - \hat{Y}_t}{(1 + \hat{Y}_t)(1 + \hat{P}_t)} b_t - \frac{\hat{P}_t}{(1 + \hat{P}_t)} b_t + evt_t \quad (2)$$

Two features of equation (2) are worth noting. First, in this study, I have chosen to work with a U.S. dollar interest rate instead of a real interest rate. This was done to facilitate a comparison across countries, given that changes in real exchange rates tend to produce large swings in ex-post real interest rates and this complicates the accounting. This does not affect the analysis since U.S. dollar inflation was low and stable during the period under analysis. Second, we separate the grants component of the primary balance (which is not a policy variable) from the nongrants component (which is a policy variable).

small in absolute value, may have large swings especially in periods of crisis due to the changes real exchange rates have during those times.

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Table 1. Fifteen Caribbean Countries: Selected Socio-economic Indicators 1/

	Population 2/ (in thousands)	Nominal GDP Per Capita (in US dollars)	Distance from United States 3/ (in miles)	Poverty (percent of population below poverty line)	Income inequality GINI coefficient 4/ (most recent year survey)	Human Dev. Index Ranking 5/ (out of 175 countries)	Illiteracy (percent of population age 15 years and over)	Life expectancy at birth (years, average)	Voice and accountability 7/ (percentile ranking)	Government Effectiveness 8/ (percentile ranking)
	(2003)	(2003)		(most recent year survey)	(most recent year survey)	(2001)	(2001)	(2000-2005) 6/	(2002)	(2002)
Antigua and Barbuda	73	11,124	1,337	12	50	56	13	74	55	70
Bahamas, The	314	16,691	112			49	5	67	87	88
Barbados	270	9,651	1,611	14	39	27	0	77	91	87
Belize	256	3,891	767			67	7	71	72	55
Dominica	79	3,554	1,414	33	30	68	4	73	81	66
Dominican Republic	8,745	1,825	1,286	21	47	94	16	67	57	42
Grenada	80	4,103	1,567	32	20	93	6	65	70	67
Guyana	765	911	1,622	35	45	92	1	63	69	47
Haiti	8,132	460	713	66		150	49	50	15	2
Jamaica	2,651	2,962	524	19	38	78	13	76	65	55
St. Kitts and Nevis	42	7,641	1,275	31	10	51	2	70	78	57
St. Lucia	149	4,048	1,496	19	43	71	10	73	80	57
St. Vincent and the Grenadines	120	3,329	1,337	33	60	80	11	74	79	57
Suriname	436	2,470	1,360			77	6	71	59	53
Trinidad and Tobago	1,303	7,836	1,622	21	40	54	2	71	66	68
Caribbean 9/	1,561	5,366	1,203	28	38	74	10	69	68	58

Sources: American Airline website, UNDP Human Development Report, 2003; OECS Human Development Report, 2002; World Bank Development Indicators; Economic Commission for Latin America and the Caribbean, Social Panorama of Latin America, 2002-2003; Kaufman, Kraay, Mastruzzi (2003), <http://info.worldbank.org/governance/kkzi/>; and country authorities.

1/ Data for some countries are not available.

2/ The population shown for Haiti is that of 2001.

3/ The distance is measured as that from Miami, Florida, U.S.A. to a major city in the destination country.

4/ A larger value indicates greater income inequality.

5/ A larger value indicates a lower development ranking.

6/ Projected figures.

7/ Includes a number of indicators measuring various aspects of the political process, civil liberties, and political rights; the extent to which citizens of a country are able to participate in the selection of governments. A larger value indicates greater voice and accountability (scale: 0 - 100).

8/ Combines responses on the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies. A larger value indicates greater government effectiveness (scale: 0 - 100).

9/ The figures for the Caribbean are simple averages.

Table 2. The Caribbean: Macroeconomic Indicators, 1990–2003

Countries	Exchange rate regime	Total public debt 1/		Overall balance 1/3/		Primary balances 2/3/		CPI inflation 4/		GDP growth 4/	
		1997	2003	1990–97	1998–03	1990–97	1998–03	1990–97	1998–03	1990–97	1998–03
Antigua and Barbuda	Currency board	102	114	-5.2	-7.9	2.4	-3.4	3.7	1.8	3.0	3.3
Bahamas, The	Fixed peg	46	48	-1.7	-1.8	1.5	0.8	3.2	1.9	0.9	2.2
Barbados	Fixed peg	62	84	-2.8	-5.0	1.5	-0.2	3.5	1.0	0.1	1.4
Belize	Fixed peg	41	93	-5.6	-10.9	-4.0	-7.9	2.9	0.8	5.7	7.2
Dominica	Currency board	61	122	-3.4	-8.2	-1.1	-3.5	2.6	-0.3	2.7	-0.5
Dominican Republic	Independently floating 5/	23	56	-2.5	-3.2	-1.4	-1.6	17.7	10.1	3.9	5.0
Grenada	Currency board	42	109	-3.9	-7.1	-1.3	-4.0	2.6	2.1	2.8	3.9
Guyana	Managed floating 5/	211	179	-3.6	-5.9	0.4	-0.3	30.1	5.3	5.9	0.5
Haiti	Managed floating 5/	n.a.	44	-4.4	-3.8	n.a.	n.a.	23.2	15.0	-0.4	0.6
Jamaica	Managed floating 5/	103	142	0.2	-8.5	8.7	8.3	32.6	7.3	0.2	1.0
St. Kitts and Nevis	Currency board	86	160	-1.7	-11.2	1.0	-5.9	3.5	2.5	4.5	2.3
St. Lucia	Currency board	36	66	-1.0	-2.5	0.3	0.0	3.1	2.1	2.7	0.8
St. Vincent and the Grenadines	Currency board	48	71	-0.6	-3.5	1.9	0.1	3.6	0.9	3.3	2.7
Suriname	Fixed peg	24	44	-3.7	-6.3	-1.6	-4.7	105.7	43.1	-0.7	2.4
Trinidad and Tobago	Managed floating 5/	52	54	0.2	-2.2	6.7	4.8	6.3	3.3	2.0	4.2
Caribbean 6/		56	92	-2.6	-5.9	1.1	-1.2	16.3	6.5	2.4	2.5

Sources: IMF, *World Economic Outlook*; country authorities; and IMF staff estimates.

1/ Overall fiscal balance is government revenues and grants minus government expenditures.

2/ Primary fiscal balance is overall fiscal balance plus interest payments.

3/ In percentage of GDP.

4/ Annual percentage change.

5/ Dominican Republic has a fixed peg until early 2003, Guyana until 1989, Haiti until 1991, Jamaica until 1990, and Trinidad and Tobago until 1993.

6/ Figures for the Caribbean are simple averages.

Table 3. The Caribbean: Economic Performance Under Fixed and Flexible Exchange Regime
(in percent)

	Fixed Exchange Rate Regime 1/	Flexible Exchange Rate Regime 2/
Annual Inflation		
1990-97	13.8	23.1
1998-03	6.0	7.7
Period 1998-03 minus period 1990-97	-7.8	-15.3
Annual GDP Growth		
1990-97	2.6	1.9
1998-03	2.8	1.6
Period 1998-03 minus period 1990-97	0.2	-0.4
Overall Fiscal Balance (percent of GDP)		
1990-97	-2.9	-1.9
1998-03	-6.1	-5.1
Period 1998-03 minus period 1990-97	-3.2	-3.2
Public Debt (percent of GDP)		
1990-97	51.9	122.0
1998-03	87.9	125.0
Period 1998-03 minus period 1990-97	36.0	3.0

Sources: IMF, *Annual Report on Exchange Arrangements and Exchange Restrictions, 2003*; and IMF staff estimates.

1/ Countries included are Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Suriname. Dominican Republic has fixed exchange rate regime until end-2003.

2/ Countries included are Guyana, Haiti, Jamaica, and Trinidad and Tobago.

Table 4a. Caribbean Countries Public Debt and Primary Fiscal Balances, 2003
(In percent of GDP)

Primary Fiscal Balance 1/	Total Public Debt 1/		
	Low to Medium Debt 0 to 50%	High Debt 50 to 90%	Very High Debt Higher than 90%
Higher than 5%			Jamaica
0 to 5 %	The Bahamas	Trinidad and Tobago	<i>Dominica</i> , Grenada
Less than 0 %	<i>Suriname</i>	Barbados, <i>Dominican Republic</i> , St. Lucia, St. Vincent and the Grenadines	Antigua and Barbuda, Belize, Guyana, St. Kitts and Nevis

Table 4b. Caribbean Countries Public Debt and Primary Fiscal Balances, 2001–2003
(In percent of GDP)

Primary Fiscal Balance 2/	Total Public Debt 2/		
	Low to Medium Debt 0 to 50%	High Debt 50 to 90%	Very High Debt Higher than 90%
Higher than 5%			Jamaica
0 to 5 %	The Bahamas, <i>Suriname</i>	Trinidad and Tobago	Guyana
Less than 0 %	<i>Dominican Republic</i>	Barbados, St. Lucia, St. Vincent and the Grenadines	Antigua and Barbuda, Belize, <i>Dominica</i> , Grenada, St. Kitts and Nevis

Source: IMF staff calculations based on data from country authorities.

1/ End of 2003.

2/ Average for the period 2001–2003.

Note: No information is available on Haiti's primary balance. The italicized countries are those that change their relative positions in Tables 4a and 4b.

Table 5. Very Highly Indebted Caribbean Countries: Total Public Sector Debt Accumulation by Components 1/
(in percent of GDP)

Year	Total Public Debt- to-GDP (in percent)	Public Debt Accumulation	Primary fiscal balance 2/ (excl. grants)	Contribution to Increase in Debt-to-GDP Ratio				Events and measurement errors 4/
				Grants	Interest-output difference effect 3/	Price effect		
1990	72.7	.	0.5	-1.8
1991	81.7	9.0	1.4	-2.1	-3.5	15.8	-2.7	-2.7
1992	67.8	-13.9	-0.6	-1.3	2.6	-13.5	-1.0	-1.0
1993	70.0	2.2	-0.9	-1.2	0.7	0.9	2.7	2.7
1994	67.5	-2.5	0.5	-1.5	2.2	-6.3	2.6	2.6
1995	67.8	0.3	0.4	-1.7	3.9	-1.8	-0.5	-0.5
1996	65.9	-1.9	1.1	-1.8	3.1	-5.0	0.7	0.7
1997	72.4	6.5	2.6	-1.3	1.5	-1.4	5.1	5.1
1998	80.1	7.7	3.3	-1.8	3.1	-2.3	5.3	5.3
1999	88.0	7.9	3.9	-1.2	2.1	-0.4	3.5	3.5
2000	95.7	7.7	5.0	-2.5	1.9	-0.6	3.7	3.7
2001	102.4	6.7	5.0	-1.3	4.4	-1.3	-0.1	-0.1
2002	121.5	19.1	7.4	-2.0	4.4	0.2	9.1	9.1
2003	123.3	1.8	2.3	-2.1	4.1	-3.1	0.5	0.5
1991-91		0.0	0.7	-1.6	1.5	-1.6	1.0	1.0
1998-2003		8.5	4.5	-1.8	3.3	-1.2	3.7	3.7
Change		8.5	3.9	-0.3	1.8	0.4	2.7	2.7

Source: IMF staff calculations based on data from country authorities.

1/ Very highly indebted Caribbean countries are defined as countries that had a public debt to GDP ratio averaging greater than 90 percent of GDP.

2/ Primary fiscal balance is the overall fiscal balance plus interest payments. Overall fiscal balance is government revenues and grants minus government expenditures.

3/ The interest rate component includes the change in the real value of the domestic-currency-denominated debt that occurs with changes in the nominal exchange rate. This is only relevant for Jamaica, since the other countries had invariant nominal exchange rates.

4/ Events include those policy actions that do not appear in the fiscal accounts but modify the public debt.

Table 6. Very Highly Indebted Caribbean Countries: Total Public Sector Debt Accumulation by Components 1/
(in percent of GDP)

Year	Total Public Debt-to-GDP Ratio (in percent)	Public Debt Accumulation	Contribution to Increase in Debt-to-GDP Ratio							Events and measurement errors 4/
			Primary fiscal balance (excl. grants)	Grants	Primary fiscal balance 2/ (includes grants)	Interest payments	Output growth	Interest-output difference effect 3/	Price effect	
Very Highly Indebted Caribbean Countries (average)										
1991-97	72.4	0.0	0.7	-1.6	-0.9	3.2	-1.7	1.5	-1.6	1.0
1998-03	123.3	8.5	4.5	-1.8	2.7	5.4	-2.0	3.3	-1.2	3.7
Change	50.9	8.5	3.9	-0.3	3.6	2.2	-0.3	1.8	0.4	2.7
Antigua and Barbuda										
1991-97	102.1	-1.7	-1.5	-0.4	-1.9	7.2	-3.1	4.1	-2.8	-1.2
1998-03	114.3	2.0	4.0	-0.6	3.4	4.5	-3.2	1.3	-1.2	-1.5
Change	12.2	3.8	5.5	-0.2	5.3	-2.7	-0.1	-2.8	1.6	-0.3
Belize										
1991-97	41.1	2.3	5.6	-1.3	4.3	1.6	-1.3	0.3	-0.6	-1.7
1998-03	93.2	8.7	8.8	-1.2	7.6	2.9	-4.2	0.1	0.1	2.3
Change	52.1	6.4	3.3	0.1	3.4	1.3	-2.9	-1.7	0.7	4.0
Dominica										
1991-97	61.1	-1.1	4.7	-4.0	0.7	2.3	-1.5	0.9	-2.3	-0.3
1998-03	122.0	10.1	8.2	-4.6	3.5	4.6	0.8	5.4	-1.2	2.4
Change	60.9	11.2	3.4	-0.6	2.9	2.3	2.2	4.5	1.0	2.8
Grenada										
1991-97	41.5	-2.1	3.5	-2.9	0.6	2.4	-2.0	0.5	-0.2	-3.0
1998-03	108.5	11.2	7.5	-3.5	4.0	3.1	-1.4	1.7	-1.5	7.0
Change	67.0	13.2	3.9	-0.6	3.3	0.7	0.5	1.3	-1.3	9.9
Jamaica										
1991-97	103.0	-2.2	-8.5	0.0	-8.5	3.0	0.0	3.0	-2.3	5.6
1998-03	142.0	6.5	-8.3	0.0	-8.3	11.8	-1.3	10.4	-0.5	4.8
Change	39.0	8.7	0.2	0.0	0.2	8.8	-1.4	7.4	1.8	-0.8
St. Kitts and Nevis										
1991-97	85.6	4.5	0.1	-0.7	-0.5	2.7	-2.4	0.2	-1.8	6.5
1998-03	159.7	12.3	6.9	-1.0	5.9	5.3	-2.7	2.6	-3.2	7.0
Change	74.1	7.9	6.7	-0.3	6.4	2.6	-0.3	2.3	-1.4	0.5

Source: IMF staff calculations based on data from country authorities.

Note: A positive sign means that the component contributed to an increase in the public debt to GDP ratio, while a negative sign means that it contributed to a decline of the public debt to GDP ratio.

1/ Very highly indebted Caribbean countries are defined as countries that had a public debt to GDP ratio averaging greater than 90 percent of GDP.

2/ Primary fiscal balance is the overall fiscal balance plus interest payments. Overall fiscal balance is government revenues and grants minus government expenditures.

3/ The interest rate component includes the change in the real value of the domestic-currency-denominated debt that occurs with changes in the nominal exchange rate. This is only relevant for Jamaica since the other countries had invariant nominal exchange rates.

4/ Events include those policy actions that do not appear in the fiscal accounts but modify the public debt.

Table 7: Very Highly Indebted Caribbean Countries: Changes in Central Government Revenues and Expenditure 1/
(in percent of GDP)

	Overall Fiscal Balance	Revenues	Central Government			
			Non-interest current expenditures	Interest expenditures	Capital expenditures	Current expenditures
Antigua and Barbuda						
1991-97	-5.3	21.3	18.7	3.4	2.9	22.1
1998-2003	-7.9	20.6	21.5	4.1	3.4	25.6
Change	↓	↓	↑	↑	↑	↑
Belize						
1991-97	-5.9	25.3	17.2	1.6	10.6	18.9
1998-2003	-10.5	23.3	16.3	2.9	11.9	19.1
Change	↓	↓	↓	↑	↑	↑
Dominica						
1991-97	-5.9	32.1	24.3	2.3	8.5	26.6
1998-2003	-10.5	33.4	26.6	4.6	10.3	31.2
Change	↓	↑	↑	↑	↑	↑
Grenada						
1991-97	-3.1	27.6	21.4	2.4	6.8	23.9
1998-2003	-7.1	30.2	20.3	3.1	13.8	23.5
Change	↓	↑	↓	↑	↑	↓
Jamaica						
1991-97	-0.1	25.7	12.6	8.4	4.5	21.1
1998-2003	-8.5	28.2	16.9	13.7	2.4	30.6
Change	↓	↑	↑	↑	↓	↑
St. Kitts and Nevis						
1991-97	-2.2	27.9	23.1	2.7	4.3	25.7
1998-2003	-11.2	31.4	27.4	5.3	10.0	32.7
Change	↓	↑	↑	↑	↑	↑

Source: IMF staff estimates from country authorities' data.

1/ Very highly indebted Caribbean countries are defined as countries that had a public debt-to-GDP ratio averaging greater than 90 percent.

Table 8. Very Highly Indebted Caribbean Countries: Exogenous Shocks and Economic Policies and Outcomes 1/

	Global Shocks			Country-Specific Shocks		Policies/Outcomes		
	Libor (in percent)	Oil prices	World GDP growth (in percent)	Decline in preferential agreements	Natural disasters (number of events)	GDP growth (per annum) (in percent)	Central government non-interest expenditures	Central government interest expenditures
Antigua and Barbuda								
1991-97	5.1	18.3	3.1	No	2	3.1	18.7	3.4
1998-2003	4.1	22.9	3.4		3	3.3	21.5	4.1
Change	-1.0	4.6	0.3		1	0.2	2.9	0.6
Belize				Yes (Sugar)				
1991-97	5.1	18.3	3.1		1	5.1	17.2	1.6
1998-2003	4.1	22.9	3.4		4	7.2	16.3	2.9
Change	-1.0	4.6	0.3		3	2.1	-1.0	1.3
Dominica				Yes (Banana)				
1991-97	5.1	18.3	3.1		1	2.2	24.3	2.3
1998-2003	4.1	22.9	3.4		2	-0.5	26.6	4.6
Change	-1.0	4.6	0.3		1	-2.7	2.3	2.3
Grenada				No				
1991-97	5.1	18.3	3.1		0	2.5	21.4	2.4
1998-2003	4.1	22.9	3.4		1	3.9	20.3	3.1
Change	-1.0	4.6	0.3		1	1.4	-1.1	0.7
Jamaica				No				
1991-97	5.1	18.3	3.1		4	-0.4	12.6	8.4
1998-2003	4.1	22.9	3.4		5	1.0	16.9	13.7
Change	-1.0	4.6	0.3		1	1.4	4.3	5.3
St. Kitts and Nevis				Yes (Sugar)				
1991-97	5.1	18.3	3.1		1	4.7	23.1	2.7
1998-2003	4.1	22.9	3.4		2	2.3	27.4	5.3
Change	-1.0	4.6	0.3		1	-2.4	4.3	2.6

Sources: IMF staff estimates from country authorities' data; and IMF, *World Economic Outlook*.

1/ Very highly indebted Caribbean countries are defined as countries that had a public debt-to-GDP ratio averaging greater than 90 percent.

Table 9a. Very Highly Indebted Caribbean Countries: Public Debt Sustainability Assumptions 1/

	Current Situation (end of 2003)		Assumptions	
	(in percent of GDP)		(in percent per annum)	
	Public debt	Primary balance	GDP growth 2/	Interest rate 3/
St. Kitts and Nevis	159.7	0.0	2.3	3.2
Jamaica	142.0	10.4	1.0	7.1
Dominica	122.0	0.2	-0.5	4.1
Antigua and Barbuda	114.3	-4.8	3.3	3.1
Grenada	108.5	0.4	3.9	3.5
Belize	93.2	-7.9	7.2	3.6

Table 9b. Very Highly Indebted Caribbean Countries: Policy Questions on Public Debt Sustainability 1/

	Primary Balance Needed to Stabilize the Public Debt-to-GDP Ratio at the 2003 Level		Public Debt by 2008 at Current Policies
	Primary Balance Needed to Reduce the Public Debt-to-GDP Ratio to 60 Percent of GDP in 5 Years	Debt-to-GDP Ratio at the 2003 Level	
Jamaica (23.1)		Jamaica (8.6)	St. Kitts and Nevis (166.8)
St. Kitts and Nevis (21.0)		Dominica (5.6)	Dominica (151.5)
Dominica (16.9)		St. Kitts and Nevis (1.4)	Antigua and Barbuda (137.1)
Antigua and Barbuda (10.7)		Antigua and Barbuda (-0.2)	Jamaica (131.8)
Grenada (9.4)		Grenada (-0.4)	Belize (115.4)
Belize (4.0)		Belize (-3.1)	Grenada (104.6)

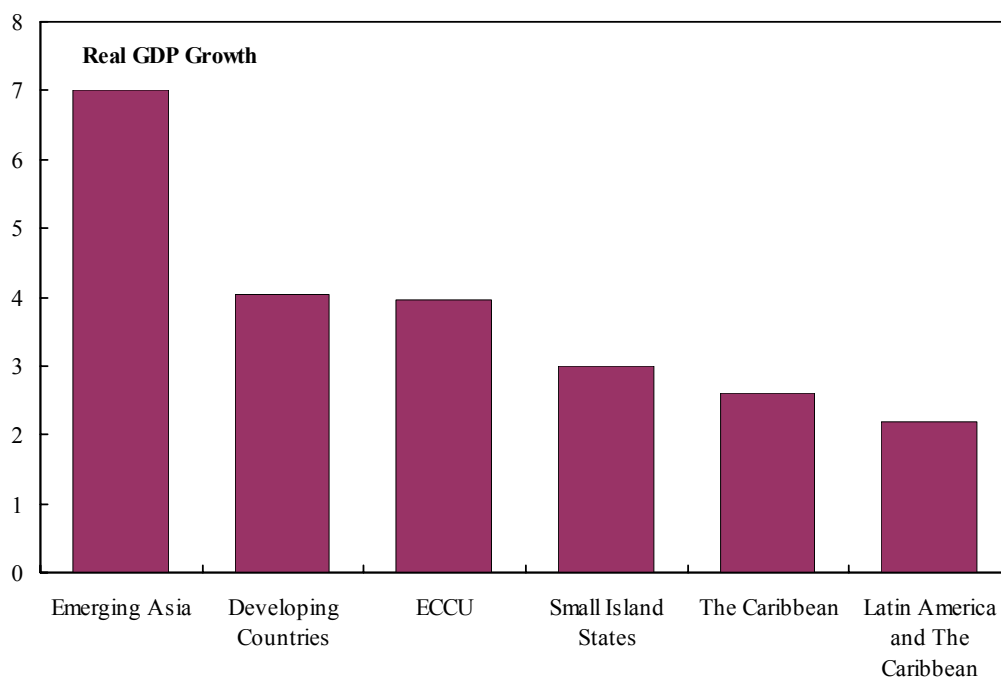
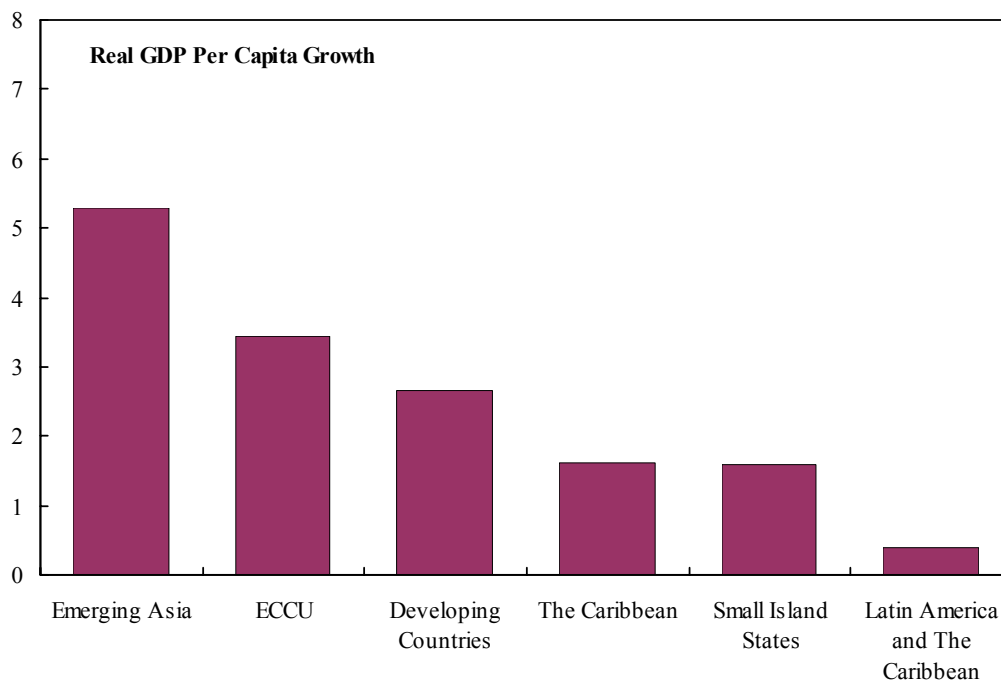
Sources: Country authorities; and IMF staff estimates.

1/ Very highly indebted Caribbean countries are defined as countries that had a public debt to GDP ratio averaging greater than 90 percent of GDP.

2/ Average growth during 1998–2003.

3/ Real interest rate on the country's debt during 1998–2003. A common annual price increase (i.e., inflation) of 1.4 percent was used to compute the real interest rates. This price increase refers to prices in U.S. dollars and is the average observed for the group of countries during the period 1990–2003.

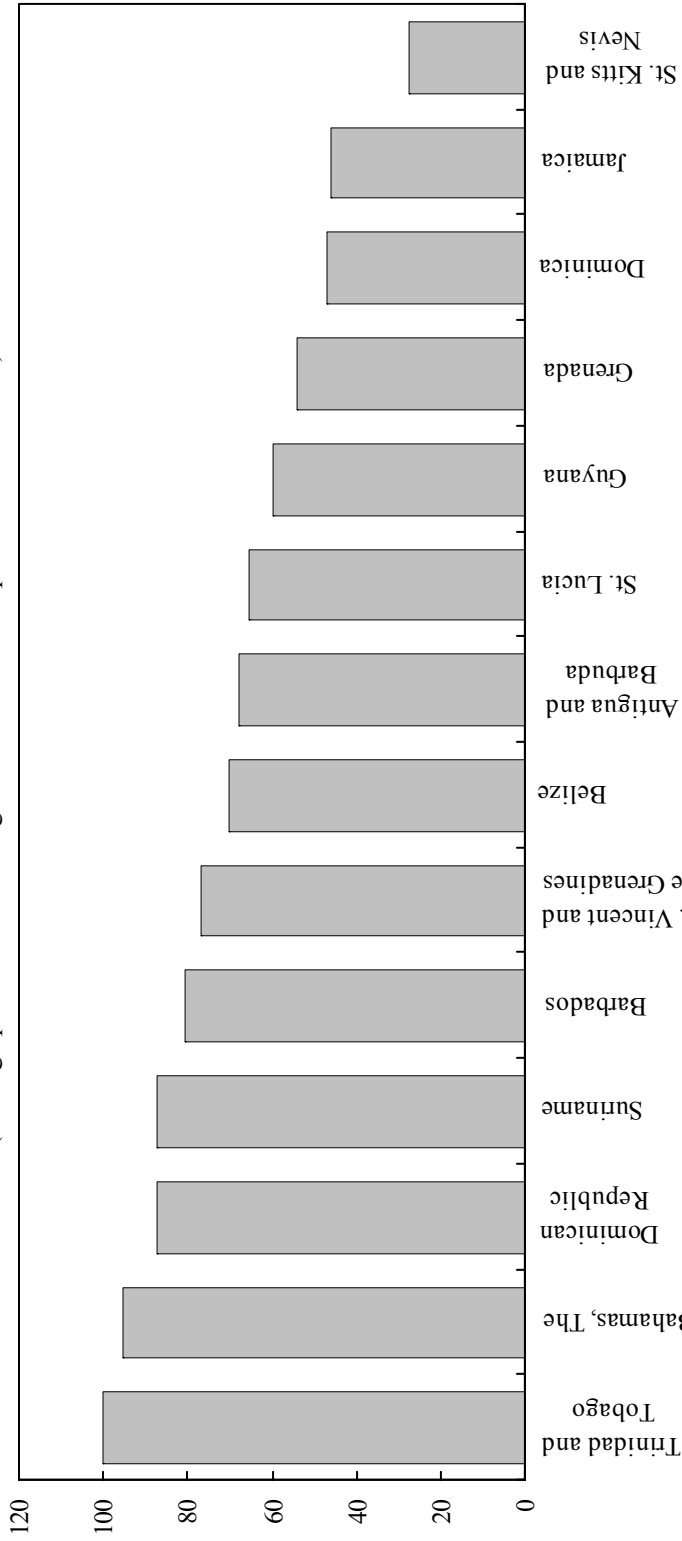
Figure 1. Real GDP Growth, by Region
(Average annual growth rate, 1980–2003)



Sources: IMF, World Economic Outlook; country authorities; and IMF staff estimates.

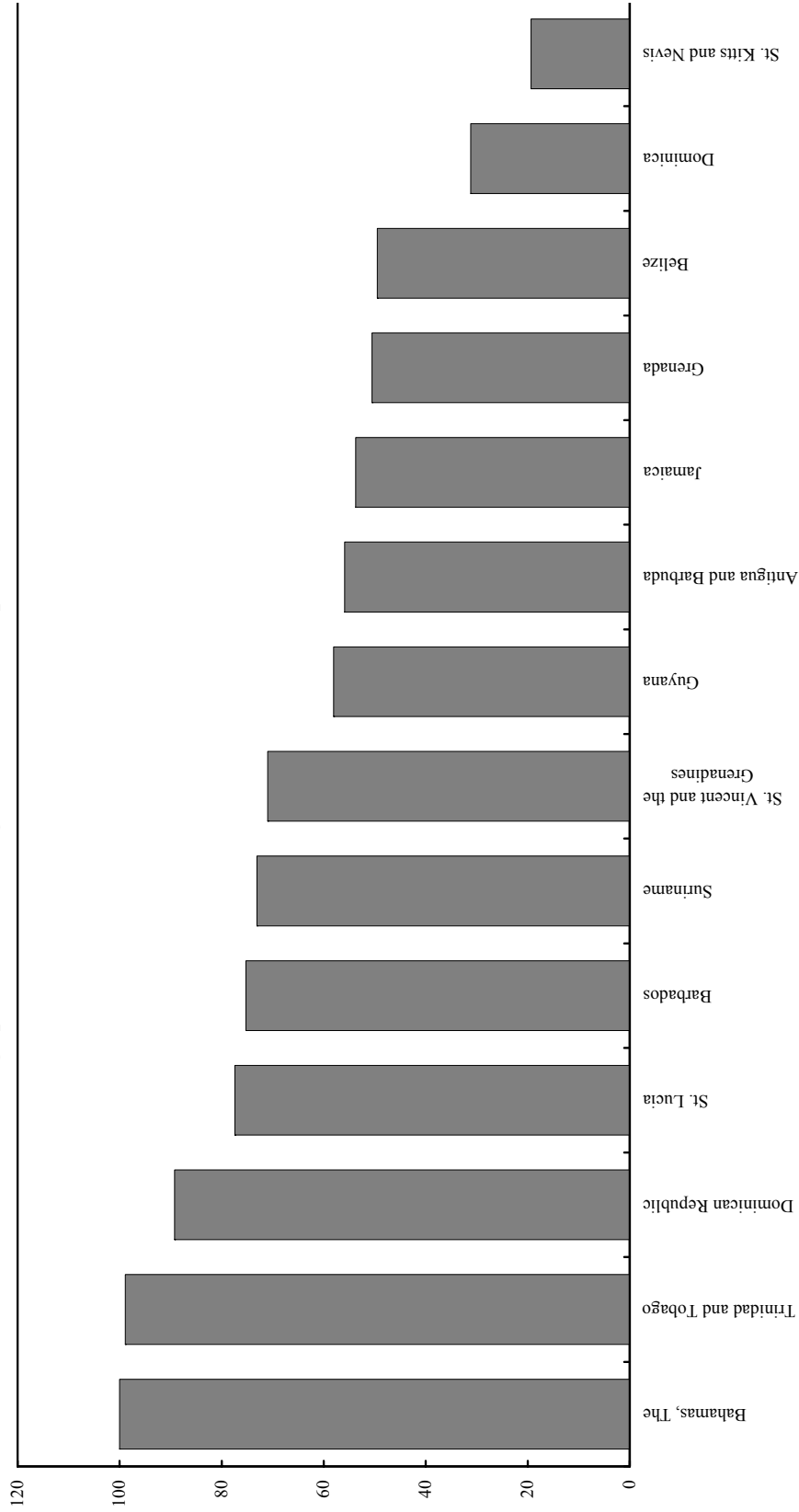
Note: ECCU denotes the Eastern Caribbean Currency Union.

Figure 2. The Caribbean: Relative Ranking on Macroeconomic Performance I/
(Average performance during 1998–2003 as compared with 1990–97)



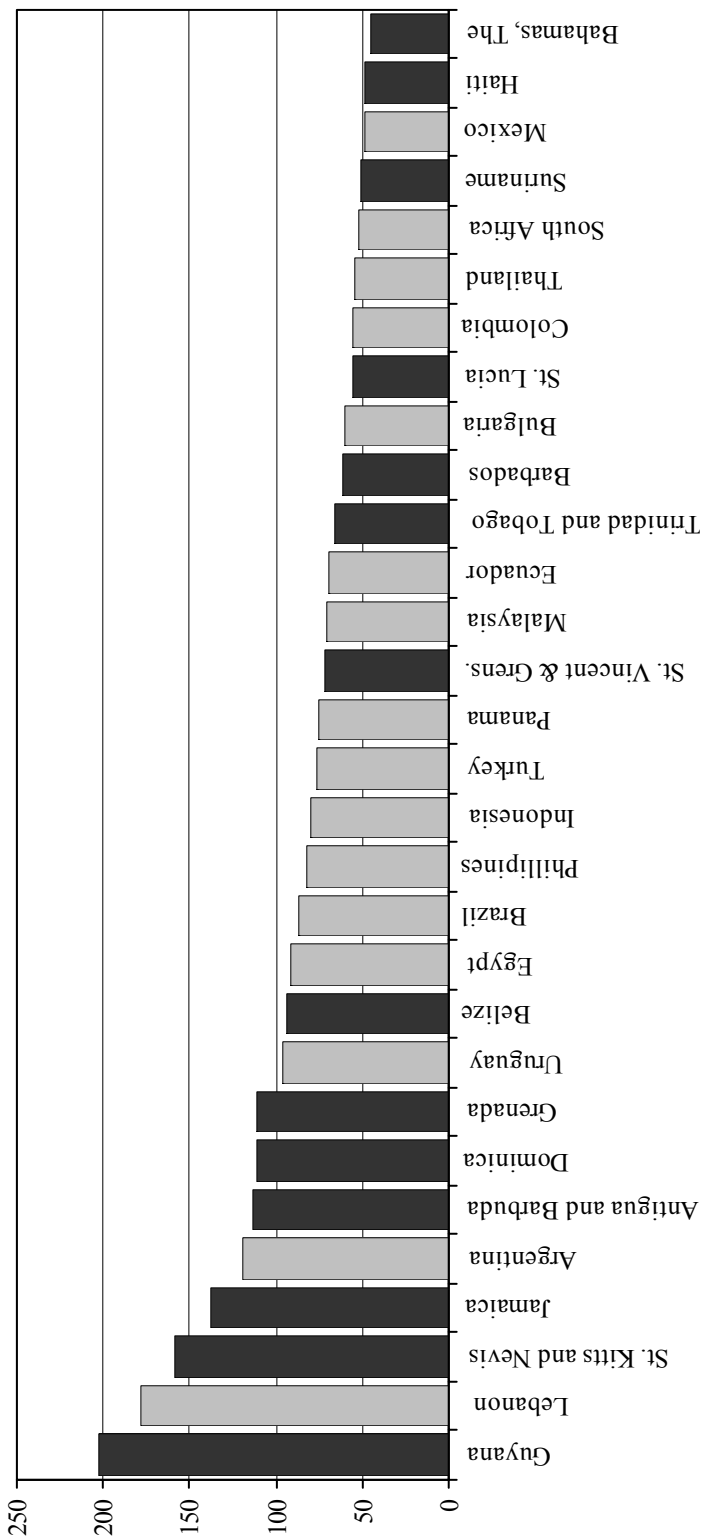
1/ The ranking is based on total public debt in 2003, absolute change in public debt from 1990–97 to 1998–2003, overall fiscal balance in 2003, absolute change in overall fiscal balance from 1990–97 to 1998–2003, CPI inflation in 2003, absolute change in CPI inflation from 1990–97 to 1998–2003, real GDP growth in 2003, and absolute change in real GDP growth from 1990–97 to 1998–2003. Countries are ranked from 1 to 15 in each category, with the best performer receiving the highest score. The scores are then aggregated for each country, with equal weight to each category of macroeconomic performance. Finally, the aggregate scores are normalized so that the scores for all countries range from 1 to 100.

Figure 3. The Caribbean: Relative Ranking on Fiscal and Debt Performance I/
(Average performance during 1998–2003 as compared with 1990–1997)



1/ The ranking was based on total public debt in 2003, absolute change in public debt from 1990–97 to 1998–2003, overall fiscal balance in 2003, absolute change in overall fiscal balance from 1990–97 to 1998–2003, primary fiscal balance in 2003, absolute change in primary fiscal balance from 1990–97 to 1998–2003, real GDP growth in 2003, and absolute change in real GDP growth from 1990–97 to 1998–2003. Countries are ranked from 1 to 14 in each category, with the best performer receiving the highest score. The scores are then aggregated for each country, with equal weight to every category of macroeconomic performance. Finally, the aggregate scores are normalized so that the scores for all countries range from 1 to 100. Haiti is excluded from the comparison because data on public debt in period 1990–97 is not available.

Figure 4. The Caribbean: Ranking Among Top 30 Most Indebted Emerging Market Countries
(Public Sector Debt-to-GDP Ratio, End-2002) 1/



Sources: IMF, World Economic Outlook; country authorities; and IMF staff estimates.

1/ Guyana and Haiti are, strictly speaking, not emerging market economies as they do not have access to private capital markets. However, they are included in this figure to show their debt levels relative to other countries in the region.

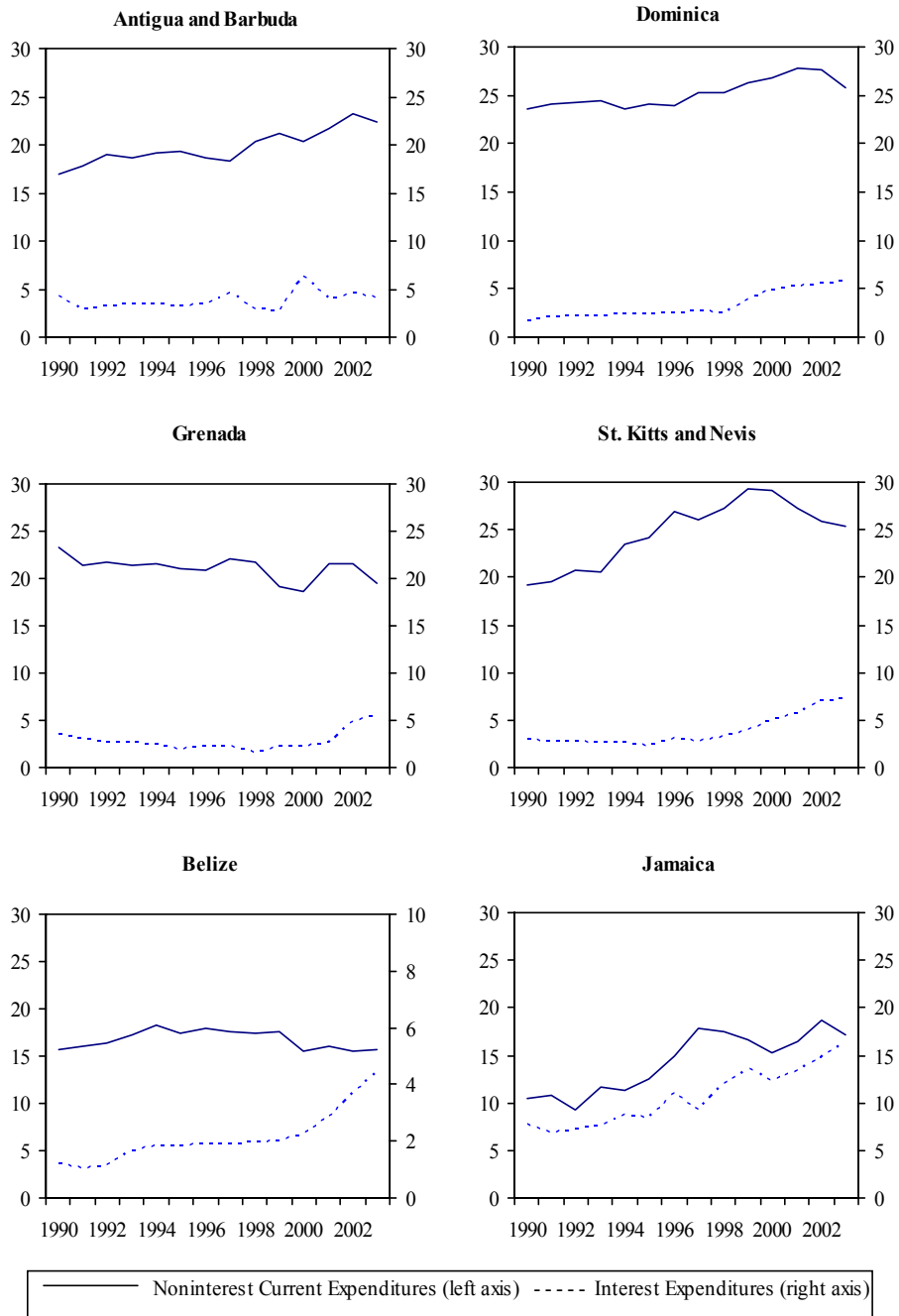
Figure 5. Very Highly Indebted Caribbean Countries: Central Government Revenues and Expenditures 1/
(In percent of GDP)



Sources: Country authorities; and IMF staff estimates.

1/ Very highly indebted Caribbean countries are defined as countries that had a public debt to GDP ratio averaging greater than 90 percent of GDP.

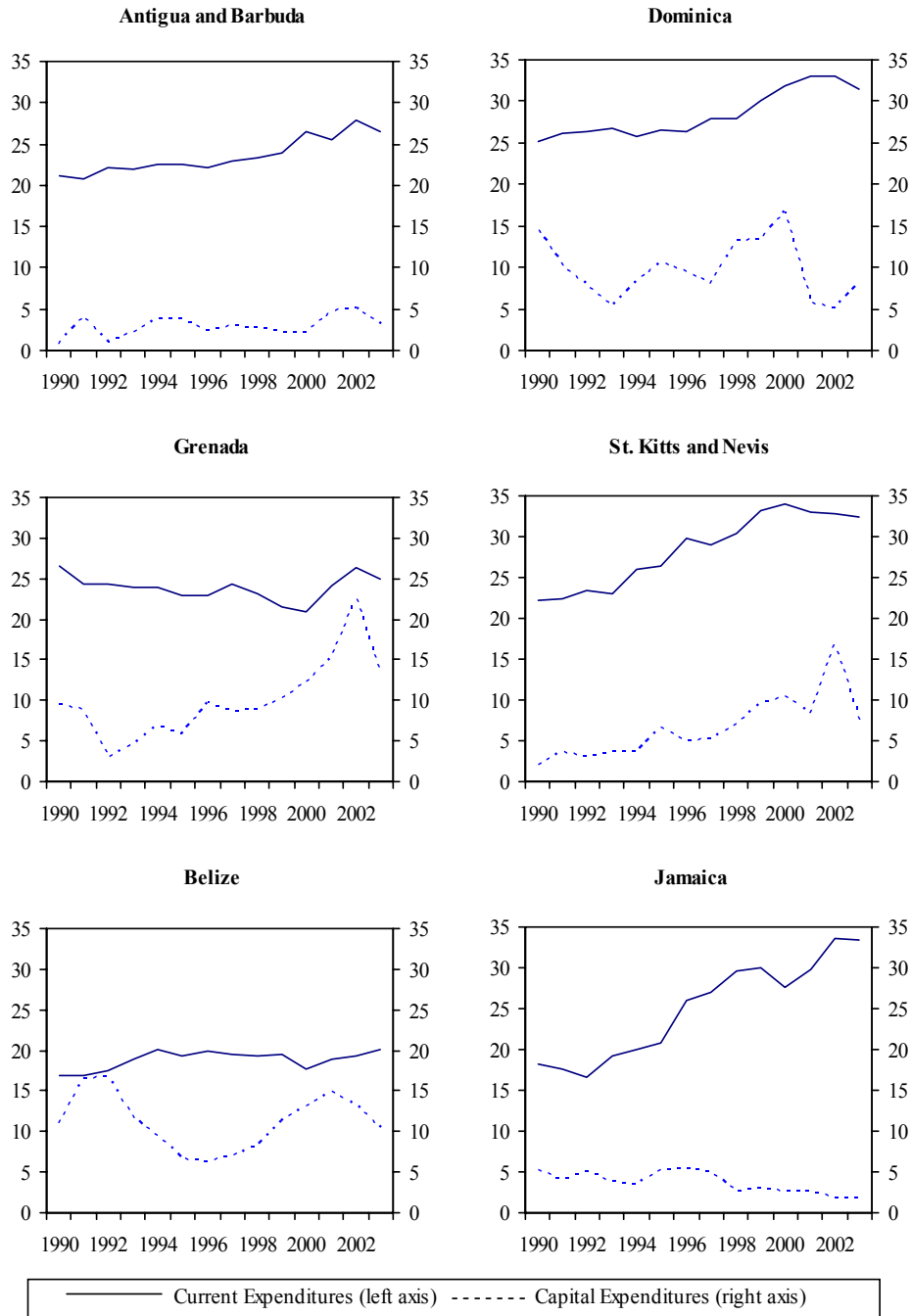
Figure 6. Very Highly Indebted Caribbean Countries: Current Expenditures of the Central Government: Interest versus Noninterest (In percent of GDP) 1/



Sources: Country authorities; and IMF staff estimates.

1/ Very highly indebted Caribbean countries are defined as countries that had a public debt to GDP ratio averaging greater than 90 percent of GDP.

Figure 7. Very Highly Indebted Caribbean Countries: Composition of Central Government Expenditures 1/
Capital versus Current Expenditure (in percent of GDP)



Sources: Country authorities; and IMF staff estimates.
1/ Very highly indebted Caribbean countries are defined as countries that had a public debt-to-GDP ratio averaging greater than 90 percent of GDP.

Figure 8. Caribbean GDP and World Interest Rate, 1980–2003

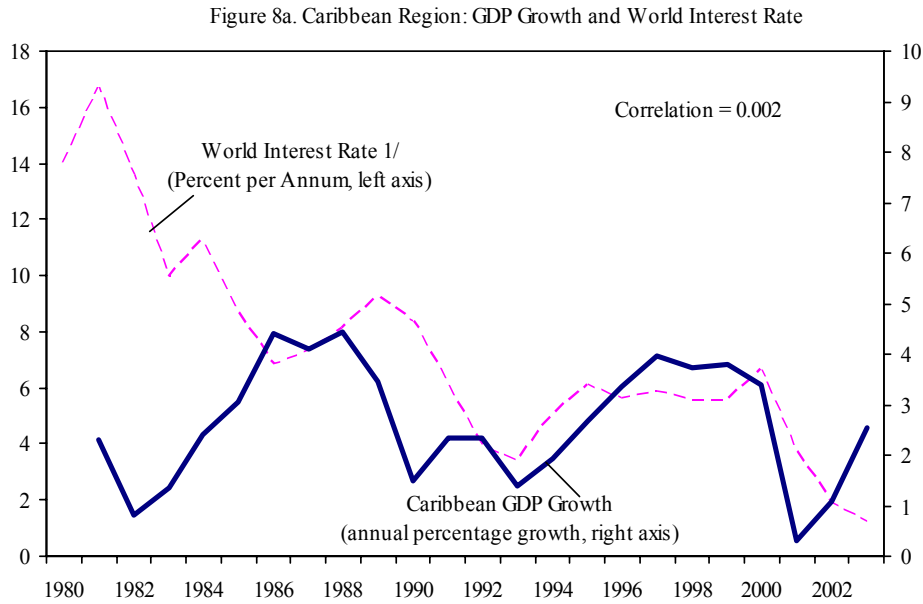
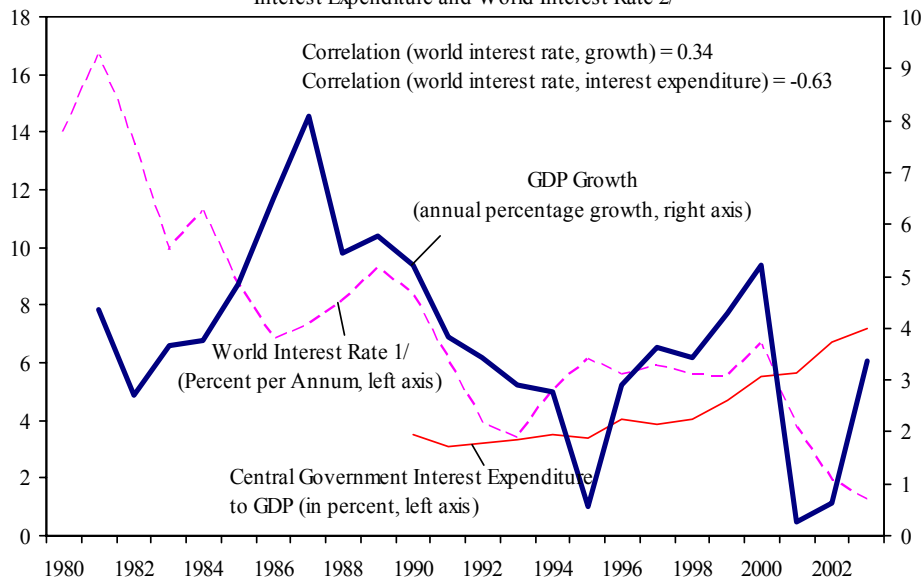


Figure 8b. Very Highly Indebted Caribbean Countries: GDP Growth, Central Government Interest Expenditure and World Interest Rate 2/



Sources: IMF, *World Economic Outlook*; country authorities and Fund staff estimates.

1/ World interest rate is the 6-month London interbank offered rate.

2/ Very highly indebted Caribbean countries are defined as countries that had a public debt to GDP ratio averaging greater than 90 percent of GDP. They include Antigua and Barbuda, Belize, Dominica, Grenada, Jamaica, and St. Kitts and Nevis.

Figure 9. Caribbean GDP Growth and Oil Prices, 1980–2003

Figure 9a. The Caribbean: GDP Growth and Oil Price

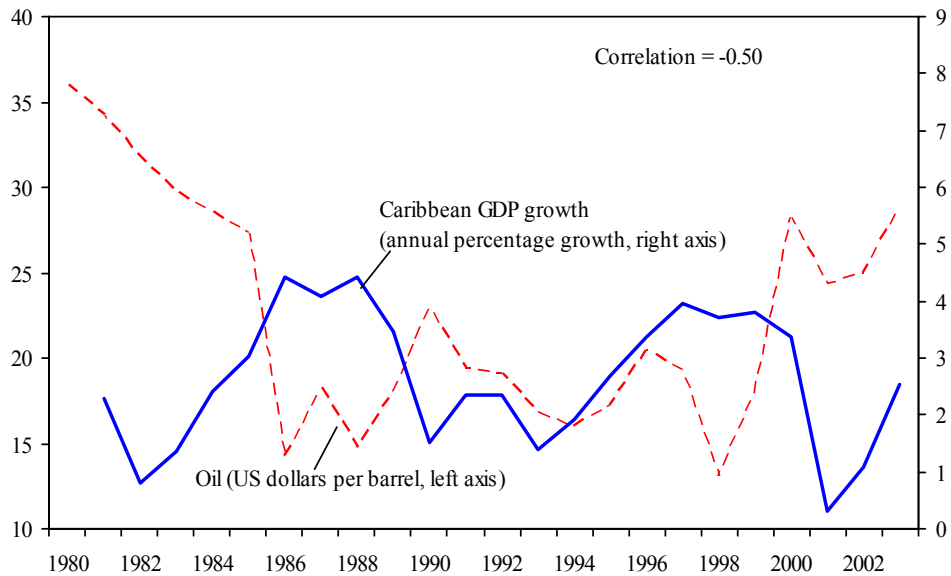
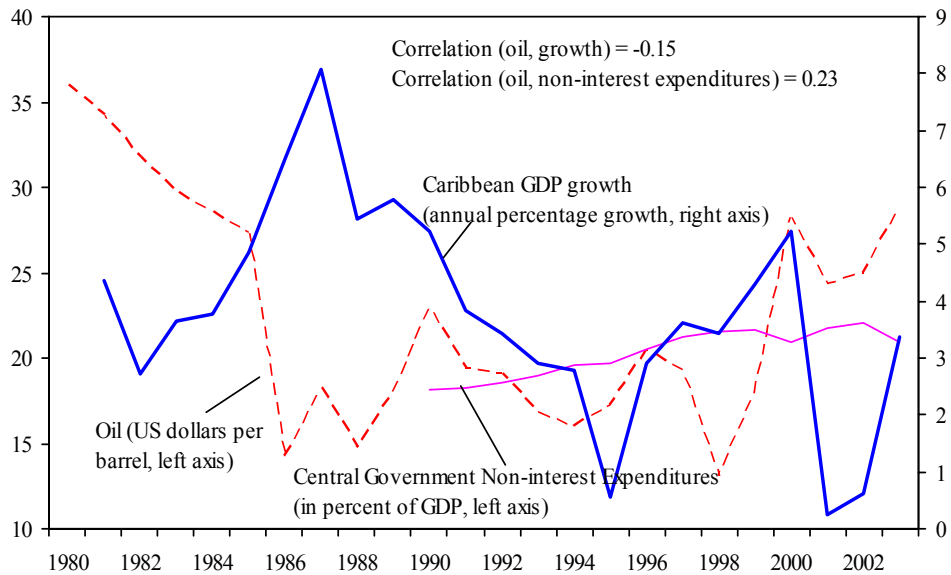


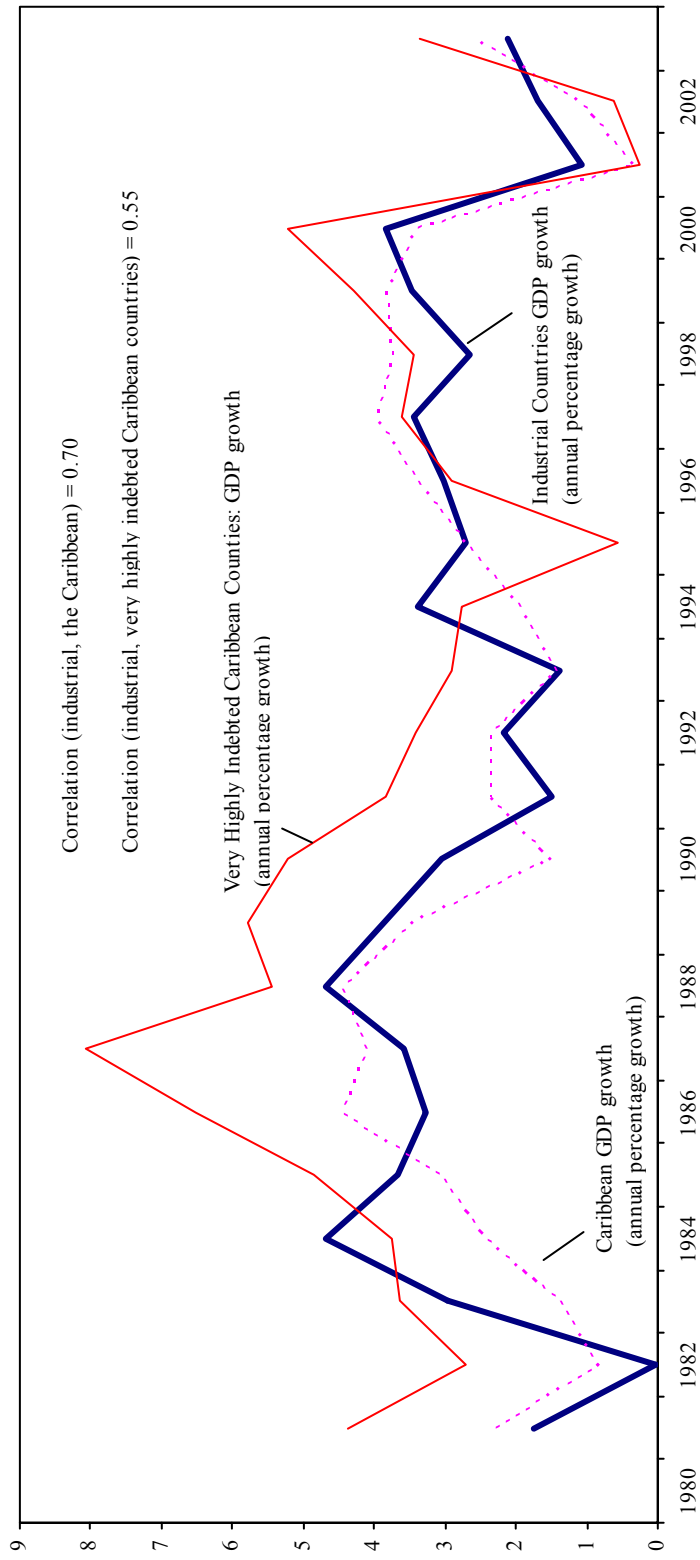
Figure 9b. Very Highly Indebted Caribbean Countries: GDP Growth, Oil Price and Central Government Non-interest Expenditure 1/



Sources: IMF, *World Economic Outlook*; country authorities; and IMF staff estimates.

1/ Very highly indebted Caribbean countries are defined as countries that had a public debt to GDP ratio averaging greater than 90 percent of GDP. They include Antigua and Barbuda, Belize, Dominica, Grenada, Jamaica, and St. Kitts and Nevis.

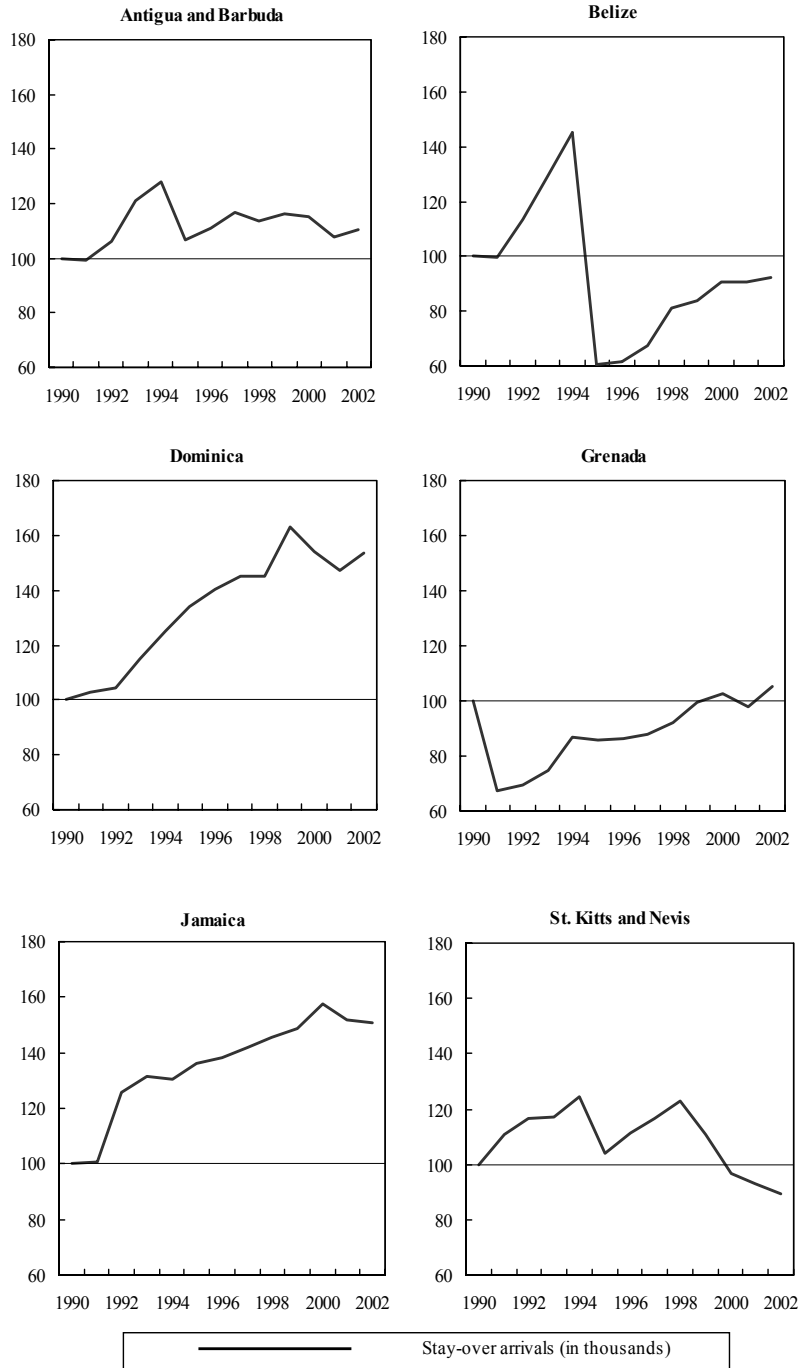
Figure 10. Caribbean and Industrial Countries GDP growth 1/



Sources: IMF, World Economic Outlook; country authorities; and IMF staff estimates.

1/ Very highly indebted Caribbean countries are defined as countries that had a public debt to GDP ratio averaging greater than 90 percent of GDP. They include Antigua and Barbuda, Belize, Dominica, Grenada, Jamaica, and St. Kitts and Nevis.

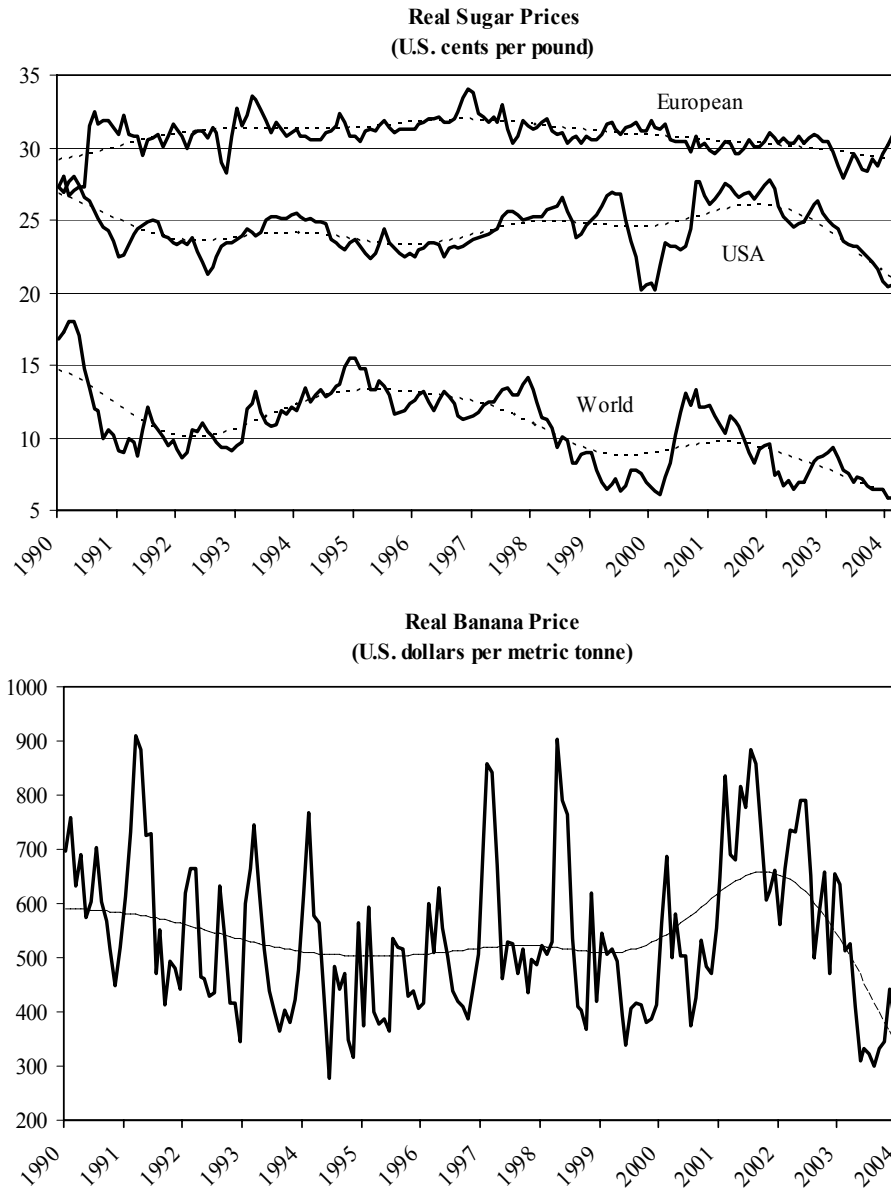
Figure 11. Very Highly Indebted Caribbean Countries:
 Stay-over Arrivals (in thousands), 1990–2002 1/
 (1990=100)



Sources: National tourism and statistical offices; and IMF staff estimates.

1/ Very highly indebted Caribbean countries are defined as countries that had a public debt to GDP ratio averaging greater than 90 percent of GDP.

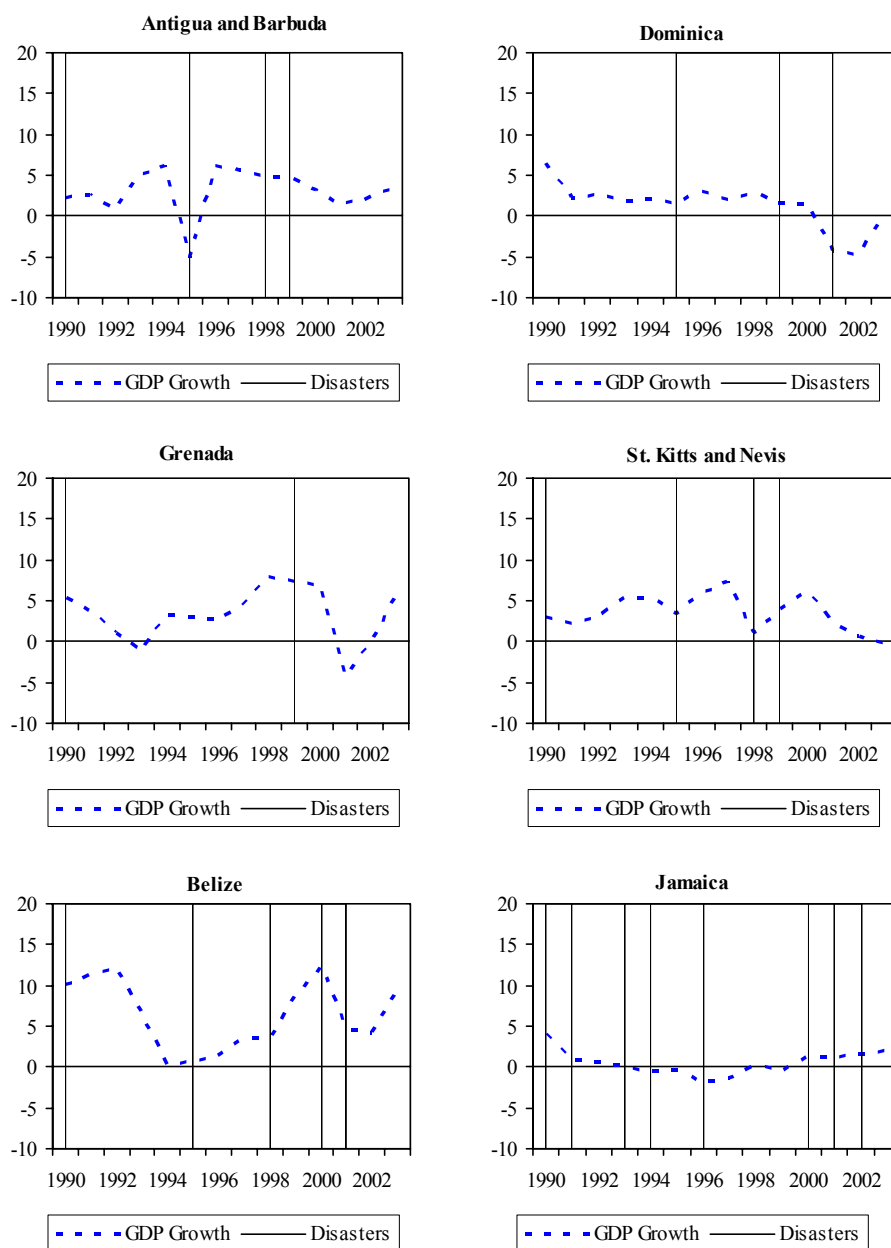
Figure 12. Real Sugar and Banana Prices
(January 1990–February 2004)



Source: International Monetary Fund, Commodity Price System.

Notes: Sugar (USA) is the U.S. import price, CSCE nearest futures, c.i.f. New York; sugar (EU) is the European Union negotiated import price for raw unpackaged sugar from ACP countries, c.i.f. European ports; sugar (world) is the free market price, CSCE nearest futures, c.i.f. New York. Dashed lines are measures of the long-run trend (smoothed versions) of the respective real price series. All nominal price series were deflated using the Fund's manufacturers' unit value index. Banana (Central American and Ecuador) is the U.S. importer's price, f.o.b. U.S. ports, U.S. dollars per metric tonne (Chiquita, Dole, and Del Monte). The dashed line measures the long-run trend (smoothed version) of the real price series. The nominal price series was deflated using the Fund's manufacturers' unit value index.

Figure 13. Very Highly Indebted Caribbean Countries: Real GDP Growth and Natural Disasters 1/ 2/



Sources: EM-DAT; countries authorities; and IMF staff estimates.

1/ Very highly indebted Caribbean countries are defined as countries that had a public debt to GDP ratio averaging greater than 90 percent of GDP.

2/ The natural disasters include: For Antigua and Barbuda, Hurricane Gustav (1990), Hurricane Luis (1995), Hurricane Georges (1998), Hurricane Jose (1999) and Hurricane Lenny (1999). For Dominica, Hurricane Luis (1995), Hurricane Lenny (1999) and Hurricane Iris (2001). For Grenada, Hurricane Arthur (1990) and Hurricane Lenny (1999). For St. Kitts and Nevis, Hurricane Gustav (1990), Hurricane Luis (1995), Hurricane Georges (1998) and Hurricane Lenny (1999). For Belize, Cold Wave (1990), Flood (1990), Flood (1995), Hurricane Mitch (1998), Hurricane Keith (2000), Hurricane Iris (2001) and Hurricane Chantal (2001). For Jamaica, Diarrhoeal (1990), Flood (1991), Flood (1993), Storm Gordon (1994), Tropical Storm Marco (1996), Drought (2000), Hurricane Michelle (2001), Flood (2002), Hurricane Lili(2002) and Hurricane Isidore (2002).