

IMF Working Paper

The Challenges of Fiscal Consolidation and Debt Reduction in the Caribbean

*Charles Amo-Yartey, Machiko Narita, Garth Peron Nicholls,
Joel Chiedu Okwuokei, Alexandra Peter, Therese Turner-Jones*

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Western Hemisphere Department

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Abstract

This paper examines debt dynamics in the Caribbean and discusses policy options for reducing the high debt levels. Based on empirical studies of factors underlying global large debt reduction episodes, important policy lessons are drawn for the Caribbean. The analysis shows that major debt reductions are associated with strong growth and decisive and lasting fiscal consolidation efforts. Since growth in the current environment is virtually nonexistent, significant fiscal consolidation is inevitable in the region. Better control of the public wage bill, increasing public sector efficiency and tackling transfers are the obvious targets to reduce spending. On the revenue side, there is ample room to reduce tax expenditures, eliminate distortions while broadening the tax base. Fiscal consolidation needs to be complemented by a comprehensive debt reduction strategy including tax policy reforms and structural reforms to boost competitiveness.

JEL Classification: H61, H63, H68

Keywords: Fiscal consolidation, debt reduction, Caribbean

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I. OVERVIEW OF ISSUES

This paper examines the evolution of public debt in the Caribbean and discusses options for reducing the high debt levels. The paper examines empirically the factors underlying global large debt reduction episodes to draw important policy lessons for the Caribbean. It also reviews the literature on successful fiscal consolidation experiences and provides an overview of past and current consolidation efforts in the Caribbean.

More specifically, the paper attempts to address the following issues:

- What are the impacts of the global financial crisis on fiscal performance and debt levels in the Caribbean?
- Has there been fiscal consolidation in the Caribbean? What policies are Caribbean countries currently pursuing to reduce debt? What are the challenges to fiscal consolidation in the region?
- What lessons can Caribbean countries draw from successful fiscal consolidation and large debt reduction experiences around the world?
- Is fiscal consolidation enough to significantly reduce the debt levels? What other policy options may be available?

Caribbean economies face high and rising debt to GDP ratios that jeopardize prospects for medium-term debt sustainability and growth. In 2010, overall public sector debt was estimated at about 71 percent of regional GDP. Interest payments on the existing debt stock in the most highly indebted countries with rising debt ratios are already in the range of 16 percent to 42 percent of total revenues. In addition, high amortization exposes some countries to considerable rollover risk that could trigger a fiscal crisis.

Structural fiscal problems have resulted in a sizable accumulation of debt. Between 1997 and 2004, the average debt to GDP ratio in the region increased from 54 percent to 84 percent driven mainly by deteriorating primary balances. Successive years of fiscal deficit, public enterprise borrowing and off balance sheet spending, including financial sector bailouts, all contributed to high debt levels. Prior to the onset of the global crisis, moderate growth rates helped some countries to broadly stabilize and reduce their debt ratios, albeit at high levels (Table 1).

The global financial crisis worsened the already high debt burdens in the Caribbean. The crisis and subsequent slow recovery in advanced countries had a significant adverse effect undermining growth in the largely tourism-dependent Caribbean, exposing balance sheet vulnerabilities built up over many years. These vulnerabilities originated from a strategy of increasing public spending to counteract declining trade performance, partly due to the erosion of trade preferences, and rebuilding costs after frequent natural disasters. As a result, the ratio of public debt to GDP increased by about 15 percentage points between 2008 and 2010. By contrast, Caribbean commodity exporters rebounded rapidly after the crisis, buoyed by high commodity prices, and their debt ratios have stabilized at relatively low levels.

Table 1. Caribbean Economies: Debt to GDP Ratios

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Antigua and Barbuda	112.8	127.5	126.1	122.1	94.6	90.4	78.8	76.9	101.8	89.3
The Bahamas	25.2	26.9	28.7	29.2	29.4	30.8	32.6	38.1	45.5	49.7
Barbados	56.2	58.7	59.3	60.4	60.8	58.2	66.5	70.9	81.1	91.4
Belize	83.8	89.0	102.3	102.3	101.4	92.5	87.6	79.4	82.2	83.3
Dominica	100.8	99.2	95.3	86.5	82.6	77.9	71.7	64.6	64.5	69.3
Grenada	44.4	78.5	78.8	94.2	88.0	92.6	88.9	83.7	97.1	102.4
Guyana	129.7	131.3	119.5	118.2	115.7	93.1	60.0	61.6	61.2	60.2
Jamaica	108.0	118.4	123.1	119.9	119.3	117.1	114.6	126.4	139.5	141.3
St. Kitts and Nevis	105.8	120.5	143.2	156.0	159.9	145.3	134.1	131.0	148.5	163.6
St. Lucia	49.5	61.7	58.0	62.6	64.9	61.4	58.5	58.8	63.2	65.3
St. Vincent and the Grenadines	56.4	56.4	58.9	62.3	64.7	65.1	55.5	57.0	64.9	67.8
Suriname	39.8	40.1	33.7	31.4	28.9	24.0	17.5	15.6	15.5	18.5
Trinidad and Tobago	56.5	59.1	53.2	45.2	36.8	32.6	25.6	21.5	30.1	35.1
Caribbean Average (Unweighted)	74.5	82.1	83.1	83.9	80.6	75.5	68.6	68.1	76.5	79.8
Caribbean Average (weighted)	69.0	74.3	72.6	69.5	65.0	61.0	56.0	55.1	66.6	70.8

Source: WEO

Past attempts at tackling high debt in the region have not yielded lasting gains. Several countries have made attempts at reducing debt, mainly through ad hoc restructuring or fiscal consolidation. As most countries have not adopted comprehensive economic reforms to complement these adjustment efforts, the initial gains have not been sustained. Further, because of their middle income status, the majority of the region has not been able to benefit from international debt relief. Moreover, only a few Caribbean countries still qualify for concessional borrowing at the World Bank. At the same time, their small size and geographical location makes them highly vulnerable to a host of frequent shocks, against which it is costly to insure. As a result, Caribbean economies have had a silent debt crisis for the past two decades, contributing to a high debt-low growth trap.

In an environment where the level of public debt remains high, reducing public debt is crucial because high public debt not only raises the risk of a fiscal crisis, but also imposes costs on the economy by keeping borrowing costs high, discouraging private investment, and constraining fiscal flexibility. Empirical evidence points to a non-linear relationship between public debt and growth suggesting that public debt beyond certain levels can have negative effects on economic activity.² Greenidge et al. (2012) addresses the use of threshold effects between public debt and economic growth in the Caribbean. Their results show that, at debt levels lower than 30 percent of GDP, increases in the debt to GDP ratio are associated with faster economic growth. However, the effect on growth diminishes rapidly as debt rises beyond 30 percent of GDP and in fact beyond 55 percent of GDP debt becomes a drag on growth.

How then can the Caribbean countries lower their debt to GDP ratio? What factors explain the success of public debt reduction and why are some countries able to reduce public debt to prudent levels faster than others? To answer these questions, this paper analyzes past global large debt reduction episodes in order to yield relevant policy lessons for the Caribbean. The analyses show that major debt reductions are mainly driven by decisive and lasting fiscal consolidation efforts focused on reducing government expenditure. In

² A simple way of thinking about the relationship between public debt and growth is that once the debt to GDP ratio crosses a country specific threshold, it increases the chances of a crisis and enhances volatility thereby lowering growth. See Gill and Pinto, 2005 for details.

addition, robust real GDP growth increases the likelihood of a major debt reduction because it helps countries grow their way out of indebtedness.

Since growth in the current environment is virtually nonexistent, significant fiscal consolidation is inevitable. Views differ regarding the most appropriate route to follow in the current environment given that the need to reduce debt comes in a difficult environment of fragile growth and tensions in international financial markets. Based on a survey of country experiences, fiscal consolidation based on expenditure reductions tend to be more effective than tax based consolidations. However, for countries with large adjustment needs, fiscal consolidation may need to be a balanced combination of spending cuts and revenue increases (Baldacci, Gupta, Mulas-Granados, 2010).

Given the already sizable public sector, most of the fiscal consolidation would have to be done by restraining spending, while implementing measures to boost revenues. Better control of the public wage bill, increasing public sector efficiency and tackling transfer spending are obvious targets to reduce spending. On the revenue side there is significant potential for reducing tax expenditure, eliminating distortions and broadening the tax base. Fiscal consolidation needs to be complemented by a comprehensive strategy to reduce public debt including tax policy reforms, improving the efficiency of government spending, containing contingent liabilities, public sector rationalization, active debt management and debt restructuring, and growth enhancing structural reforms.

The remainder of the paper is organized as follows. Section II reviews fiscal performance in the Caribbean over the last two decades and examines the impact of the global financial crisis on debt levels in the region. Section III explores empirically the factors determining large debt reductions around the world. Section IV considers the Caribbean experience with fiscal consolidation. We also evaluate recent fiscal consolidation efforts in the Caribbean with case studies of Barbados, Jamaica, and St. Kitts and Nevis. Section V examines the challenges to fiscal consolidation in the region and reviews the literature on successful fiscal consolidation to draw important lessons for the region. Section VI concludes the paper by discussing policy options for reducing debt levels in the region.

II. FISCAL PERFORMANCE IN THE CARIBBEAN BEFORE AND AFTER THE GLOBAL FINANCIAL CRISIS

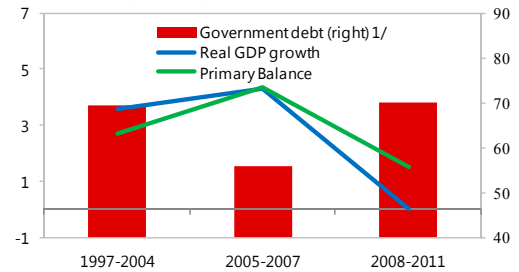
This section analyzes fiscal performance in the Caribbean over the last 15 years to determine the nature of underlying fiscal problems and the extent of the impact of the global financial crisis on fiscal outcomes. Specifically, it examines whether the reaction of fiscal indicators during the crisis was different from previous downturns.

A. Fiscal Performance in the Caribbean During the Past Two Decades

Fiscal performance in the Caribbean during the last 15 years can be divided into 3 sub periods. The first period (1997–2004) was characterized by rising debt as the average debt to GDP ratio increased from 54 percent to 70 percent at the end of 2004. During the second period (2005–2007) debt declined by around 15 percentage points of GDP, while the third period (2008–2011) saw more debt accumulation to an average of 70 percent of GDP (see chart).

The debt build up in the first period occurred during a period of a relatively benign growth. We calculated averages over the three periods for GDP growth and the primary balance together with the end-of-period debt stock (see chart). The analysis shows that during the first period, GDP grew at an average rate of 3.6 percent, while the primary surplus was close to 2.7 percent of GDP. In the second period, the primary surplus increased by 1.5 percentage points of GDP accompanied by average growth rates of 4.3 percent. During the recent financial crisis, primary balances deteriorated again, while GDP grew by a mere half a percent on average.

Growth, Primary Balance and Debt
(percentage change, percent of GDP)

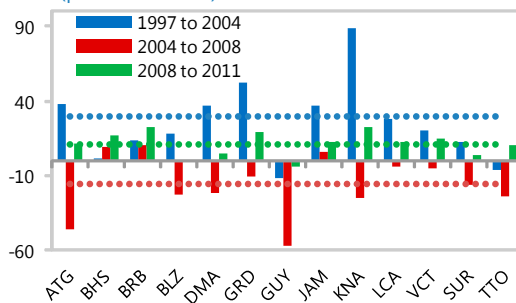


Source: IMF staff estimates.

1/ Government debt measured as end of period, growth and primary balance represent average over period. Government debt and primary balance represent weighted Caribbean averages.

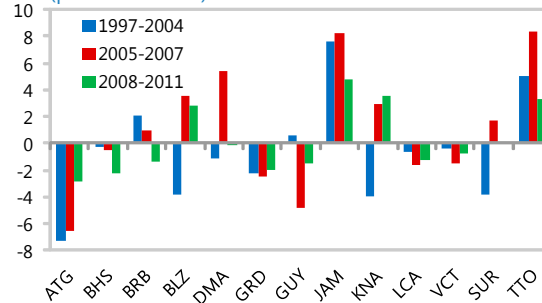
Individual country experiences show that most countries had the highest debt build up during the first period (see chart). Exceptions to this are, on the one hand, Guyana and Trinidad and Tobago, where debt declined overall, and on the other hand Barbados and The Bahamas, where debt rose sharply particularly during the latest period. Aided by the Heavily Indebted Poor Countries initiative (HIPC) and the Multilateral Debt Relief Initiative (MDRI), Guyana's debt more than halved between 1997 and 2011. Debt in Trinidad and Tobago started to increase during the financial crisis after having declined in earlier years.

Change in Government Debt
(percent of GDP)



Source: IMF staff estimates.

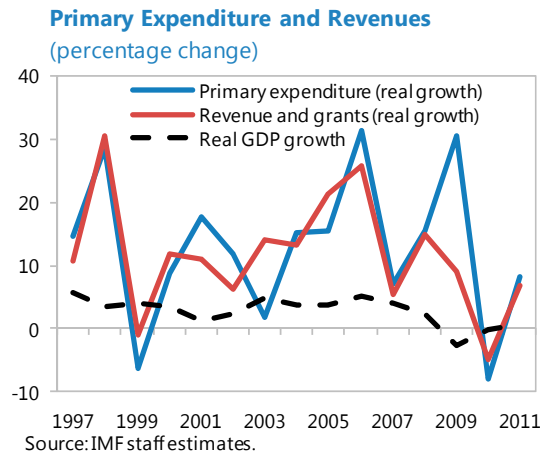
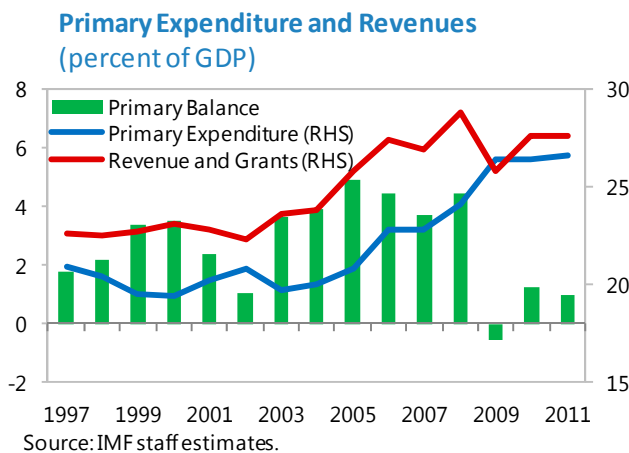
Cyclically Adjusted Primary Balance
(percent of GDP)



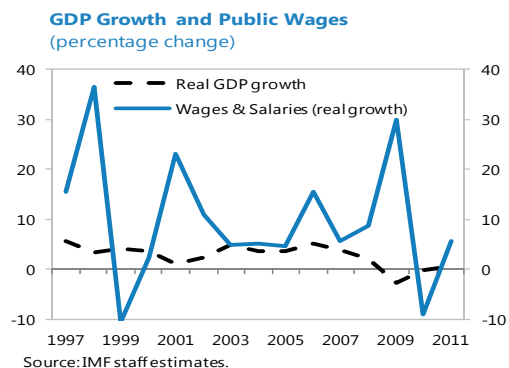
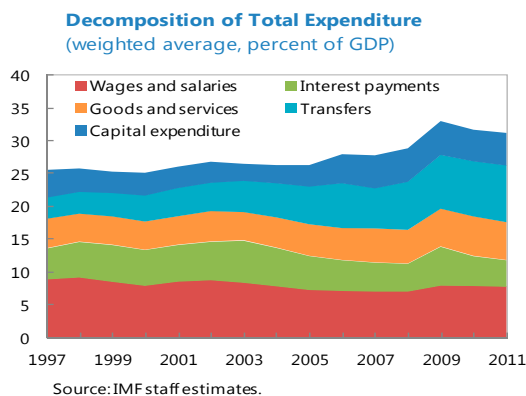
Source: IMF staff estimates.

The behavior of cyclically adjusted primary balances was different across countries. In half of the countries, primary balances improved between 2005 and 2007, before deteriorating again during the financial crisis in 2008–2011, while in the other half of the countries, primary balances deteriorated in 2005–2007 with some improvements in the last period. The exceptions are Antigua and Barbuda and St. Kitts and Nevis, where primary balances have continuously improved. In The Bahamas and Barbados, primary balances mirror the debt behavior and have continuously deteriorated.

Over the years, revenue performance has improved significantly in the Caribbean, while primary spending has also increased strongly. During the first 5 years of the sample period, revenues in percent of GDP averaged around 23 percent before increasing to around 29 percent by 2008 (see chart). In 2009, revenues dipped shortly to 26 percent before increasing again to around 28 percent of GDP. This was due to revenue measures adopted by some countries (e.g., introductions of VATs or VAT and excise rate increases). Primary spending hovered around 21 percent of GDP until 2005 before it started to increase strongly to above 26 percent of GDP in 2011. Real primary expenditure and revenue growth tend to move together (see chart); the exceptions being during the growth slowdown in 2001/2002 and the 2008/2009 recession. In both cases, expenditures grew strongly, while revenue growth was subdued.



Public wages and salaries make up the biggest component of total expenditure in the Caribbean. Decomposing total expenditures in the Caribbean into five sub components shows that public wages and salaries comprise the biggest component of total expenditure, around 8–9 percent of GDP (see chart). Their share of GDP has been very stable over the last 15 years. The other components' shares range from 4 percent of GDP for interest payments to 8 percent for transfers.

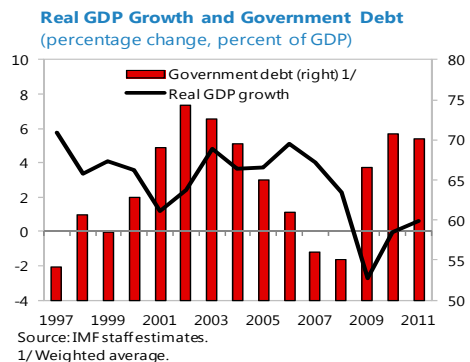


Public wage growth outstripped real GDP growth over the last 15 years. Analyzing the real growth of expenditures on public wages and salaries together with real GDP growth shows that overall the growth of real expenditures on public wages has been higher than real GDP growth during the last 15 years, excluding 1999 and 2010 (see chart). The wage growth was particularly high in times of low GDP growth (e.g. 2001/2002, 2009). However, in years immediately after hikes, wage growth decelerated on average, e.g. in 2010, public wage growth fell significantly.

Higher total expenditure during the financial crisis was mainly driven by increased spending on goods and services and transfers. The average spending on goods and services rose from 5 to 6 percent of GDP, while transfers climbed from 6 percent of GDP to more than 8 percent of GDP. Capital outlays fluctuated between 3 to 5 percent over the last 15 years.

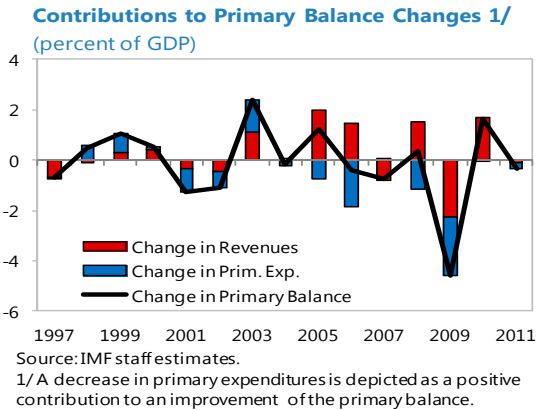
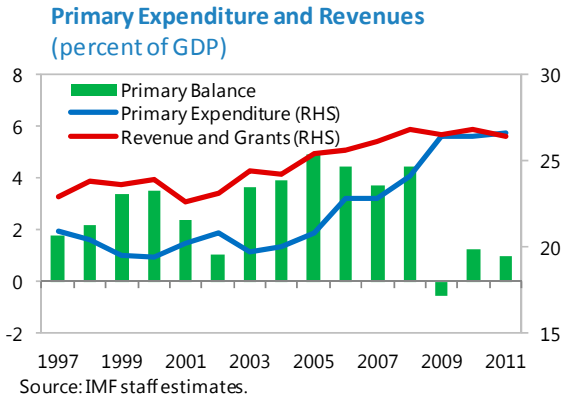
B. Public Debt and Fiscal Balances During the Financial Crisis

Caribbean countries were severely affected by the global economic crisis due to negative spillovers from the United States and Europe. Tourism declined sharply, accompanied by declines in offshore activity and other services. Real GDP declined by 2.2 percentage points between 2008 and 2010 with tourism-intensive economies more strongly affected than commodity exporting economies (see chart).³ On the fiscal side, the region entered the recession with few fiscal buffers. Although debt came down during the boom period of the mid-2000s, government debt was still on average around 55 percent of GDP in 2008.

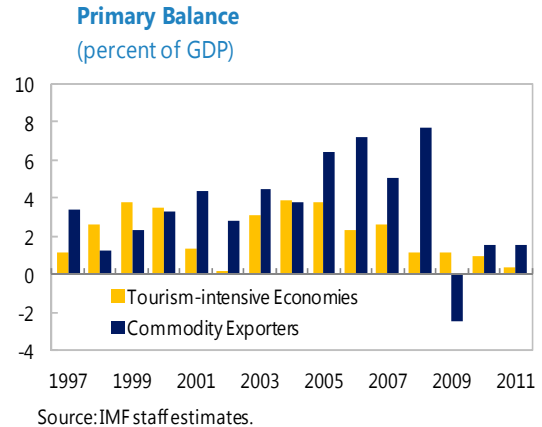
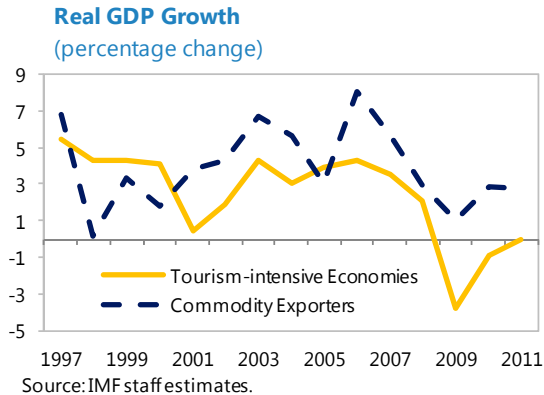


Many countries responded to the economic crisis by loosening fiscal policy, thereby increasing the debt to GDP ratio. In particular, governments generally raised spending in an effort to curb job losses and to stimulate the economy. Since buffers in the form of public sector savings were limited or non-existent, they borrowed more to finance higher current spending. As a result, public debt, on average, moved higher to around 70 percent of GDP in 2011 (though below nadir during the early 2000s). Further, the collapse of the financial conglomerate CLICO affected several budgets in the region as countries financed measures to resolve the insurance crisis and support the financial system.

³Tourism-intensive economies refer to Antigua & Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Jamaica, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines, while commodity exporting countries include Guyana, Suriname and Trinidad & Tobago.



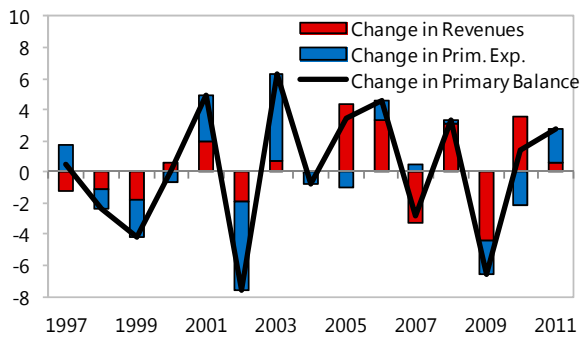
Primary balances deteriorated in many countries contributing to the buildup of public debt. The average primary balance declined from a surplus of 4.4 percent of GDP in 2008 to a deficit of 0.5 percent of GDP in 2009 (see chart). During the growth slowdown in 2001/2002 the drop of primary balances was about half that amount, as they decreased by around 2.5 percentage points of GDP over two years. The strong deterioration of the average primary balance in 2009 was driven almost equally by an increase in primary spending and a decline in revenue income (see chart). The subsequent improvement of the primary balance was driven by a higher revenue collection in 2010 and a primary spending increase in 2011. This followed a similar pattern experienced in the early 2000s.



The global financial crisis has had a differential impact on tourism intensive and commodity exporting economies. On average, commodity exporters had higher growth during the last 15 years (3.9 vs. 2.4 percent) and a better primary balance (3.5 vs. 2.1 percent of GDP). In particular, during the financial crisis, the growth slowdown was much smaller in commodity exporting countries compared to tourism-intensive economies, which went into a deep recession in 2009 (see charts). Reflecting the commodity boom at the onset of the financial crisis, commodity exporting countries had strong primary surpluses of around 8 percent of GDP in 2008. However, primary balances of commodity exporters deteriorated strongly in 2009 but also improved faster during 2010 and 2011.

The reaction of primary balances was somewhat different in the two country groups. In tourism-intensive countries, the somewhat smaller decline in primary balances was mainly driven by expenditure increases, while in commodity exporting countries, the stronger decline in primary balances was driven by a revenue fall-off. Similarly, the subsequent recovery was driven by an expenditure decrease in tourism intensive countries and a revenue pick up in commodity exporting countries. The analysis also shows that primary balances seem to be much more volatile in commodity exporting countries than in tourism-intensive countries.

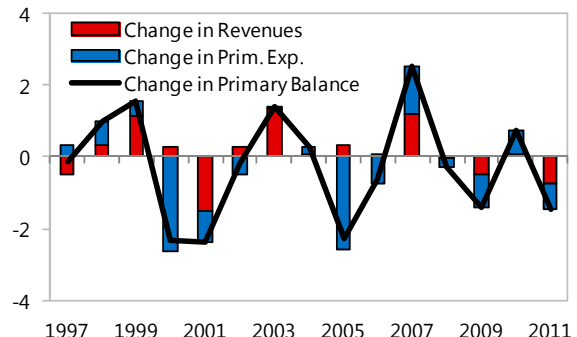
**Contributions to Primary Balance Changes,
Commodity exporting economies (percent of GDP)**



Source: IMF staff estimates.

1/A decrease in primary expenditures is depicted as a positive contribution to an improvement of the primary balance.

**Contributions to Primary Balance Changes,
Tourism-intensive economies (percent of GDP)**

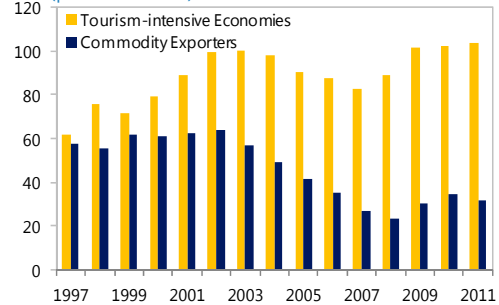


Source: IMF staff estimates.

1/A decrease in primary expenditures is depicted as a positive contribution to an improvement of the primary balance.

There are also noticeable differences in the behavior of government debt between tourism-intensive and commodity exporting countries. On average, commodity exporting countries' debt ratio was similar to that of the tourism-intensive countries in 1997, both averaging around 60 percent of GDP. However, subsequently commodity exporting countries halved their debt (from 64 percent of GDP in 2002 to 32 percent of GDP in 2011). The decline reflects the debt relief Guyana received under the HIPC initiative and Suriname's clearance of foreign arrears, which included partial debt write-offs (see chart). During that period, tourism-intensive countries almost doubled their government debt to GDP ratio from around 62 percent in 1997 to 104 percent in 2011.

**Government Debt 1/
(percent of GDP)**



Source: IMF staff estimates.

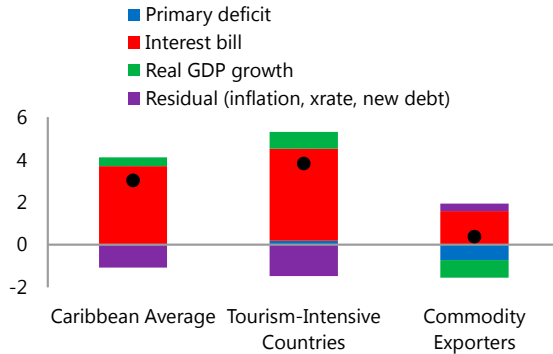
1/ Weighted average.

C. Accounting for Public Debt Accumulation During the Crisis

The debt accumulation during the financial crisis period 2008–2011 can be attributed to higher interest payments and slow growth. To decompose the factors responsible for the government debt increase during the financial crisis, a debt accounting exercise is used (Box 1). On average, the debt to GDP ratio increased by 12.7 percentage points (see charts).

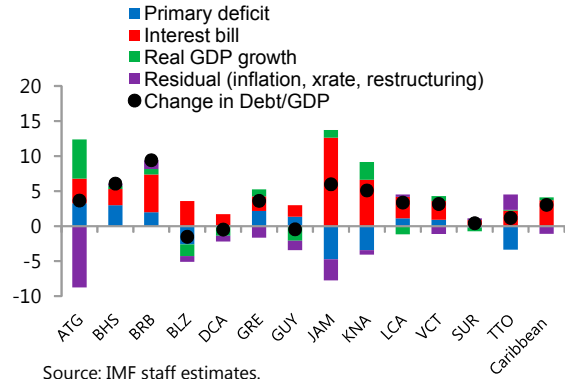
This was driven mainly by larger interest payments. Low GDP growth and primary deficits also contributed to positive debt accumulation. The residual, encompassing factors such as inflation, exchange rate changes and other events changing public debt, had a negative effect on the debt ratio. By contrast, the relatively higher real GDP growth rates in commodity exporters helped them to contain debt accumulation.

Debt Accumulation Decomposition, 2008-11
(percent of GDP)



Source: IMF staff estimates.

Decomposition of Accumulations, Individual Countries,



Source: IMF staff estimates.

Box 1: Accounting for Public Debt

To account for debt accumulation, we follow the methodology in Sahay (2005). Equation (1) describes the accumulation of government debt, where D_{t+1} and F_{t+1} are domestic debt denominated in domestic currency and foreign debt denominated in foreign currency, respectively. S_{t+1} is the nominal exchange rate measured in units of foreign currency per unit of domestic currency. Interest rates on domestic and foreign debt are denoted i_t and r_t , respectively. Finally, PB_t is the primary balance and RES_t a residual capturing events that modify public debt but do not necessarily appear in the fiscal accounts.

(1) $D_{t+1} + F_{t+1} \frac{1}{S_{t+1}} = (1 + i_t)D_t + (1 + r_t)F_t \frac{1}{S_{t+1}} - PB_t + RES_t$ For the analysis all variables are expressed in percent of GDP. Dividing both sides of equation (1) by GDP ($P_t Y_t$) and rearranging gives equation (2):

$$(2) \quad b_{t+1} - b_t = \bar{r}_t - \bar{g}_t^r - pb_t + res_t$$

where $b_{t+1} = \frac{D_{t+1} + F_{t+1} \frac{1}{S_{t+1}}}{Y_t P_t}$ is the debt to GDP ratio, \bar{r}_t represent interest payments, $\bar{g}_t^r = \frac{g_t^r}{(1+g_t^r)} b_t$ represents the effect of GDP growth, pb_t is the primary balance in percent of GDP and res_t is a residual as explained above, also capturing inflation and exchange rate effects.

Government debt increased by different levels in individual countries with the most important factor being interest payments. Debt to GDP ratios increased in all countries with the exception of Guyana and the magnitude ranges from as low as 3 to over 20 percentage points of GDP. Interest payments were the most important contributor to debt accumulation. This was particularly true for Jamaica, where a high primary surplus was more than overcompensated by high interest payments. For Antigua and Barbuda, the high negative residual can be explained by restructuring activities, while the low GDP growth rate had a strong positive impact on debt build up. In Guyana, the debt decrease was strongly facilitated by high GDP growth rates. The high contribution of interest payments was not due to higher interest rates, as these decreased on average from 5.2 percent (2004–2007) to 4.6 percent (2008–2011).

III. HOW CAN HIGH PUBLIC DEBT LEVELS IN THE CARIBBEAN BE REDUCED?

Theoretically, countries have a number of options to reduce their debt levels including growth, fiscal consolidation, inflation, debt restructuring and defaults, and privatization (IMF, 2003):

- Reducing debt through economic growth would generally be the preferred option of policy makers, but growth is currently virtually nonexistent in the Caribbean.
- Reducing debt through explicit defaults entails reputation costs that could influence future borrowing and constrain fiscal policy.
- High inflation has enormous growth and welfare costs, while privatization though debt reducing does not change the net worth of the government.
- Reducing debt through fiscal consolidation maintains credibility of the government, but is often politically difficult and the gains need to be maintained over a long period of time.

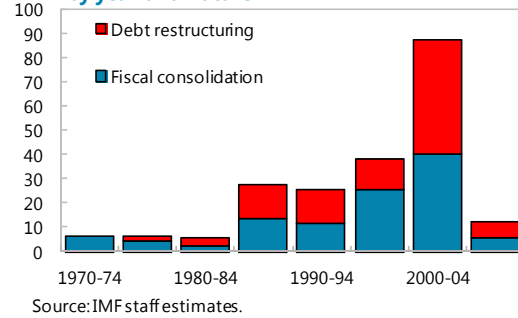
To answer the question of how public debt levels in the Caribbean could be reduced, we look at past global large debt reduction episodes in order to yield relevant policy lessons. We use data for advanced and emerging market and other developing countries for the period 1970–2009 to identify cases where the public debt to GDP ratio was reduced by at least 15 percentage points.

A. Global large Debt Reductions—Stylized Facts

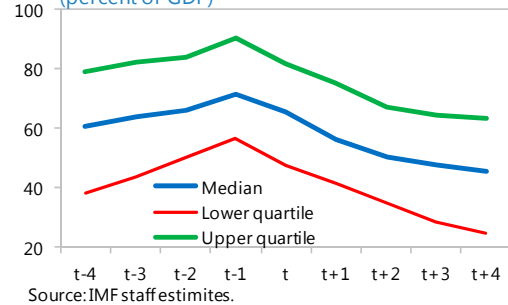
- We define a large debt reduction episode as occurring if the debt to GDP ratio declined by at least 15 percent of GDP over five years. We drop cases where the debt stock at the end of the five year period was still above the level three years prior to the event.
- Using this definition, we recorded about 206 episodes of large debt reductions around the world between 1970 and 2009. The average decline in the debt to GDP ratio was 35 percent of GDP.

- Around 100 of the debt reduction episodes were achieved through debt restructuring or default, representing 48 percent of the total debt reduction episodes.
- Around 106 of the debt reduction episodes were achieved through higher GDP growth, higher inflation or fiscal consolidation. This represents 52 percent of the debt reduction episodes.
- Of the debt reduction episodes achieved through fiscal consolidation, about 25 percent of the episodes were preceded or accompanied by the existence of fiscal rules.
- Most of the large debt reduction episodes lasted over a relatively long period of time ranging from 4 years in Panama to 18 years in Australia. The average duration of large debt reduction episodes not achieved through debt restructuring is about 7 years.
- In the 106 cases in which the large debt reduction was not due to a restructuring, the median decline in the debt to GDP ratio was 26.4 percent over a five year period.

Number of global debt reduction episodes by year and nature



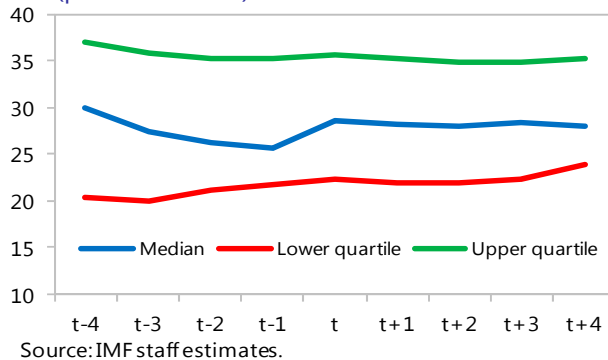
Public Debt (percent of GDP)



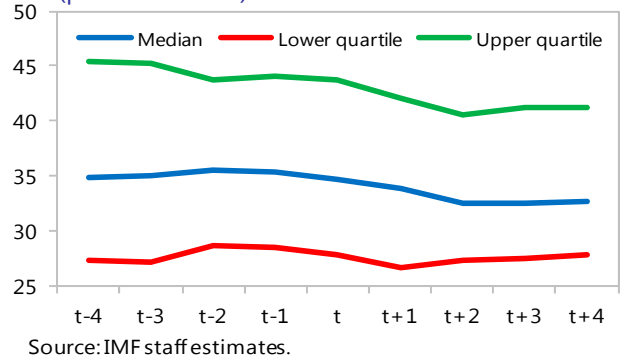
B. Factors Behind the Global Decline in Public Debt to GDP Ratio

This section uses an event study analysis and a logit regression approach to analyze the potential drivers of global large debt reductions. The event study examines the behavior of macroeconomic factors such as primary balance, GDP growth, government spending, government revenues, and the composition of public spending before and after the onset of large debt reduction episodes.

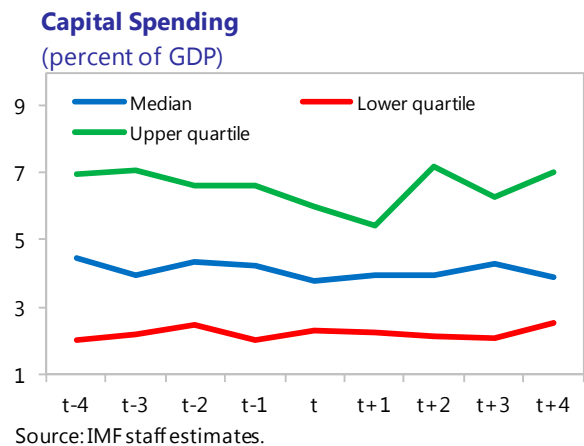
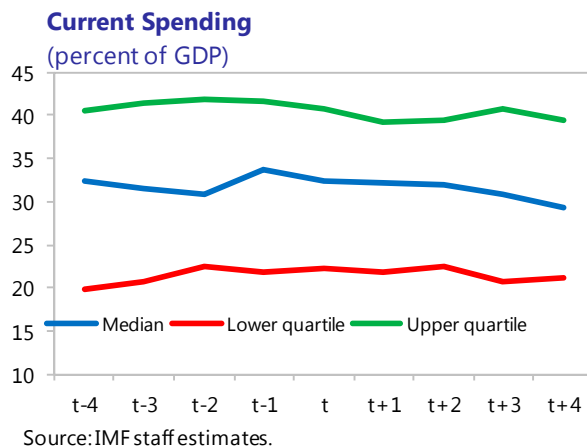
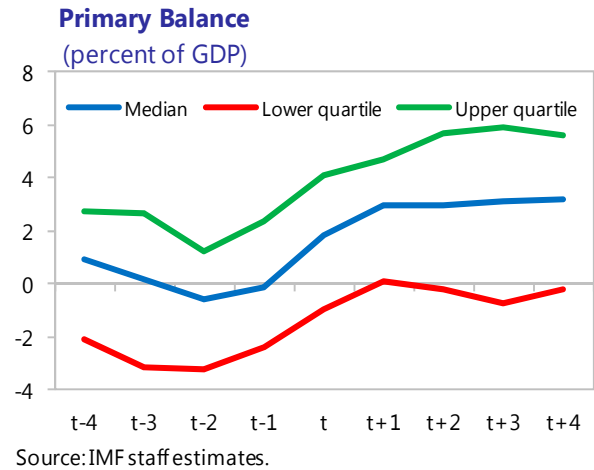
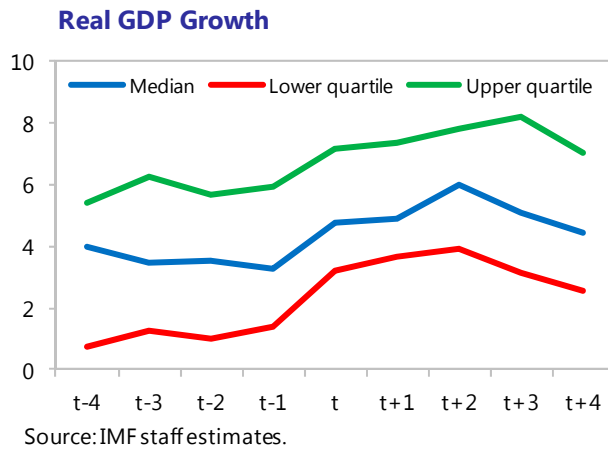
Government Revenues (percent of GDP)



Government Spending (percent of GDP)



A strong economic performance and strong fiscal efforts seem to have contributed significantly to the reduction in the debt to GDP ratio. Real GDP growth starts to pick up one year before the event and averaged about 5 percent per year during the first five years of the debt reduction episode. In addition, the primary balance starts to improve significantly at least two years before the large debt reduction episode and the improvement is sustained during the first five years of the episode.



The fiscal improvements were due to a combination of revenue enhancing measures and expenditure restraints. The median decline in the ratio of government spending to GDP was 4 percentage points of GDP over the five year period while the median increase in the revenues to GDP ratio was about 3 percentage points of GDP. The reduction in total spending came mainly from cuts in current spending with capital spending remaining broadly flat over the five year period.

Econometric analysis shows that robust economic growth and decisive fiscal consolidation are the main determinants of the global large debt reductions (Box 2).

Box 2. The Determinants of Global Large Debt Reduction: An Econometric Analysis

This paper analyzes econometrically the determinants of global large debt reductions using a panel data set of 155 countries for the period 1970 to 2009. The empirical literature on debt reduction has focused on debt reductions, which were strongly linked to fiscal consolidation efforts. However, this approach ignores other potential determinants of debt reduction such as business cycle developments and the magnitude of debt servicing cost. This analysis adopts a different approach and examines the roles of fiscal consolidation, growth and debt servicing cost in explaining the probability of a large debt reduction. A logit regression approach is employed to estimate the probability that a large debt reduction will be initiated.

Determinants of global large debt reduction			
Estimation Results			
Dependent variable: Probability of a large debt reduction			
	Random effects GLS	Random effects logit	Conditional fixed effects logit
Real GDP growth	0.0071 (1.98)**	0.0522 (1.74)*	0.1155 (2.38)**
Cyclically adjusted primary balance	0.0054 (2.11)**	0.0582 (2.25)**	0.1516 (2.53)**
Interest payment to GDP ratio	0.0198 (3.11)**	0.1659 (2.98)**	0.1617 1.01
Debt to GDP ratio	-0.0001 -0.05	-0.002 -0.07	0.0553 (3.38)***
Inflation	-0.0023 -1.43	-0.0278 -1.37	-0.0765 (-2.41)**
Constant	0.0346 1.09	-2.7631 -8.57
Number of observations	469	469	217

Note: Z statistics in parenthesis. ***, **, * indicate significance at 1%, 5 % and 10% levels respectively

The dependent variable is the probability of a large debt reduction (*debtred*), which takes the value of 1 if a large debt reduction occurs and 0 otherwise. If a large debt reduction occurs in period t and continues in $t+1$, the value of *debtred* is recorded as missing. The explanatory variables are measures of fiscal consolidation and macroeconomic variables. Fiscal consolidation is measured by the cyclically adjusted primary balance to potential GDP ratio, while the macroeconomic variables include the debt to GDP ratio, GDP growth, and inflation. Interest payments to GDP ratio are used as a measure of interest costs to determine whether interest costs have a disciplinary effect on debt.

The results show global large debt reductions are driven by decisive and lasting fiscal consolidation. In addition, strong economic growth and high debt servicing cost are positively associated with the probability of a large debt reduction. As expected, inflation does not contribute to major debt reductions and is actually negative and significant in the conditional fixed effects logit specification. In sum, strong economic growth increases the probability of a large debt reduction as the implementation of sound policies helps countries grow themselves out of debt. Debt servicing costs also play a disciplinary role as increases in debt servicing costs increase the incentive for governments to consolidate effectively.

These results are in line with other findings in the literature. Nickel, Rother, and Zimmermann (2010), using a sample of EU15 countries for the period 1985–2009, analyzed the determinants of large debt reductions. Their main results were that major debt reductions are mainly driven by decisive and lasting fiscal consolidation efforts focused on reducing government expenditure, particularly cuts in social benefits and public wages. They also find that revenue based consolidations seem to have a tendency to be less successful. In addition to fiscal consolidation, they find that robust real GDP growth increases the likelihood of a major debt reduction, because it helps countries grow their way out of indebtedness, and high debt servicing costs play a disciplinary role.

IV. FISCAL CONSOLIDATION IN THE CARIBBEAN: PAST AND CURRENT EXPERIENCES

This section analyzes the Caribbean experience with fiscal consolidation, covering a sample of 14 countries including 6 in a currency union, for three decades, 1980–2011.⁴ It aims to provide useful insights into the nature of fiscal consolidation in the region, and the possible implications for policy. This section also provides an assessment of current fiscal consolidation efforts in the region with case studies of Barbados, Jamaica and St. Kitts and Nevis. Overall, the analysis shows that the duration of fiscal adjustment in the Caribbean is generally short, about a year on average, perhaps reflecting a tendency to avoid adjustment fatigue. However, the success rate is substantially higher on average than the consolidation rate suggesting that it would be desirable for the authorities to engage in more fiscal consolidation as they tend to be successful nearly half the time. The findings also show that fiscal consolidation has been more successful in commodity exporting countries than in tourism-intensive economies.⁵

A. Defining and Identifying Fiscal Consolidation⁶

The standard approach is to relate fiscal consolidation to a specific improvement in the cyclically adjusted primary balance (CAPB) as a percentage of potential GDP over a specific period. Nevertheless, the definition of fiscal consolidation in the literature varies partly reflecting different study objectives (Box 3). We adopt the following definition:

- Fiscal consolidation is said to occur when the CAPB to potential GDP ratio improves by at least one percentage point in one year, or in two consecutive years.
- An episode starts if the CAPB improves by at least one percentage point in one year, or in two consecutive years. It continues as long as the CAPB improves, and terminates if the change in the CAPB becomes zero or negative.

⁴ The sample includes Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, Guyana, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

⁵ Tourism-intensive economies include Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines. Commodity exporting countries include Guyana, Suriname, and Trinidad and Tobago.

⁶ For the purpose of duration analysis, multi-year fiscal adjustment will constitute a single episode.

- Fiscal consolidation is successful if after four years, the debt to GDP ratio reduces to 5 percentage points below the level prior to the start of consolidation.⁷
- The size of fiscal consolidation refers to the improvement in the CAPB in a year, or over an episode.

Box 3. Defining a Fiscal Consolidation Episode: Alternative Views from the Literature

There is no standard definition of fiscal consolidation. Reflecting a change in the underlying fiscal stance, fiscal consolidation is commonly *defined as a specific improvement in the cyclically adjusted primary balance (CAPB) to potential GDP* (Alesina and Ardagna, 1998; Larch and Turrini, 2011; and Alesina, Carloni and Lecce, 2012). An alternative measure relates *changes in the primary balance to GDP* (Lambertini and Tavares, 2005; and Tsibouris et al., 2006). In addition to the primary balance to GDP measure, Tsibouris et al., 2006, considered *changes in the ratio of primary balance to government expenditure*. Giavazzi, Jappelli and Pagano, 2000, defined consolidation as a *persistent improvement in the fiscal impulse*.

An episode is deemed to occur when the improvement in the CAPB or a related measure falls within a specified threshold. Studies on large fiscal adjustments impose tighter conditions, and require an improvement of the CAPB, or other measures by at least 1.5 percentage point in a year, or in two consecutive years (Barrios, Langedijk, and Pench, 2010; Alesina, Ardagna and Gali, 1998; Heylen and Everaert, 2000; Biggs, Hasset and Jensen, 2010; Giavazzi, Jappelli and Pagano, 2000; Alesina, Carloni and Lecce, 2012; and Larch and Turrini, 2011). Alternatively, the more gradual approaches consider an improvement of at least 1 percentage point (Ahrend, Catte, and Price, 2006; Kumar et al., 2007), or by at least 1.25 percentage points (Von Hagen, Hughes Hallett and Strauch, 2002). Generally, the episode continues as long as the measure of fiscal consolidation improves.

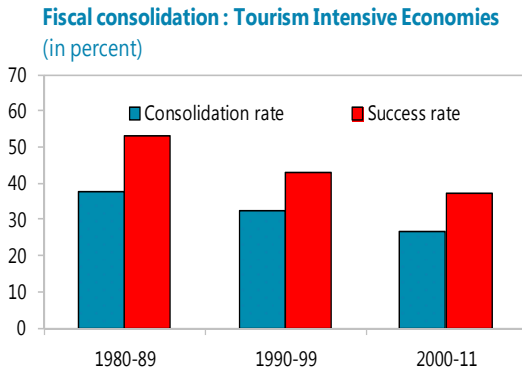
To assess the success of fiscal consolidation, alternative approaches are adopted including the primary balance, the debt and the growth criteria. The primary balance approach aims to safeguard fiscal consolidation by requiring that the improvement in the CAPB, or primary balance a few years after the event remains within a given threshold (Larch and Turrini, 2011; Lambertini and Tavares, 2005). This criterion excludes as successful a consolidation not arising from fiscal efforts.. The debt approach, which is commonly applied, considers fiscal consolidation as a necessary condition for debt reduction and therefore ties success to the reduction in the debt to GDP ratio of some 5 percentage points over a 3 – 5 year period. In this context, a very successful fiscal consolidation is one that reduces debt over a 3 year period. Also referred to as the expansionary criterion, the third approach proposes that GDP growth should improve after a consolidation (Hernandez de Cos and Moral-Benito, 2012; and Giudice, Turrini and in't Veld, 2007).

B. Features of Fiscal Consolidation in the Caribbean

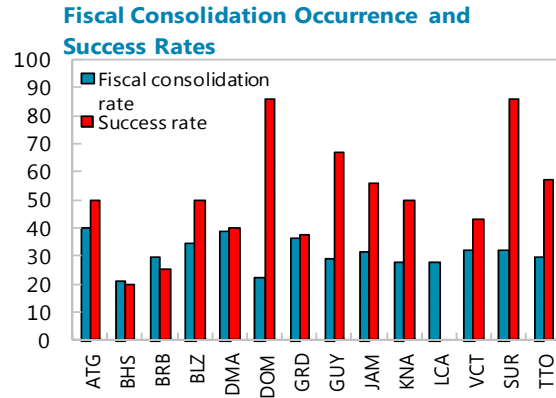
On average, the likelihood of fiscal consolidation occurring appears moderate, and consolidation tends to succeed nearly half of the time. In 352 observations, the study identified 107 cases of fiscal consolidation, which represents 30.4 percent of the sample. Of

⁷ The sample includes cases in which the reduction in the debt to GDP ratio was reversed.

the 107 cases, 51 of them, about 47 percent, were successful. This suggests that, on average, the likelihood of fiscal consolidation occurring in the Caribbean would appear moderate, but the chance of success is much higher.⁸

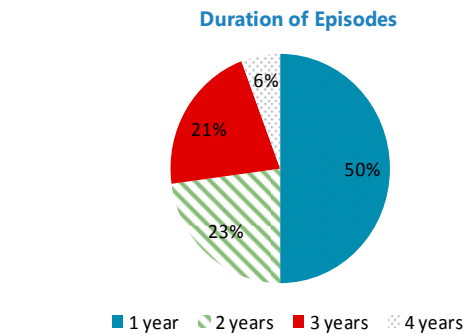


Source: IMF staff estimates.

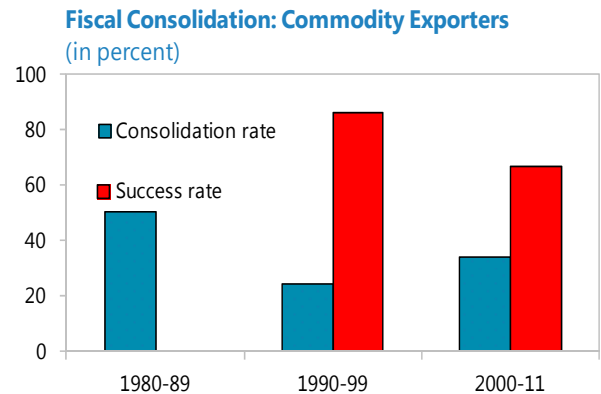


Source: IMF staff estimates.

The fiscal consolidation experience in the region is broadly comparable with findings for advanced countries.⁹ Focusing on large adjustments (1.5 percent improvement in the CAPB), findings by Larch and Turrini (2011) indicate a consolidation rate of about 25 percent and a success rate of 33 percent in 27 EU member countries. In a sample of 19 OECD countries, Alesina, Carloni and Lecce (2012) find a 45.5 percent consolidation rate for any improvement in the fiscal position, and a 9 percent rate for large adjustments.¹⁰



Source: IMF staff estimates.



Source: IMF staff estimates.

⁸ The primary source of data is the WEO database. It was supplemented with data compiled by desk economists. The sample size differs across countries reflecting data availability. Data is mostly available from the 1990s. The debt data, which covers mostly general government debt, were obtained from the IMF Historical Public Debt Database compiled by the Fiscal Affairs Department.

⁹ The findings in the literature are not easily comparable because of varying definitions of fiscal consolidation and their successes.

¹⁰ In a study by Barrios, Langedijk and Pench (2010), fiscal consolidation succeeded in only 1/3 of cases, about 34.5 percent, in 15 EU countries. In another study covering advanced countries, Alesina and Ardagna (2009) identified 107 fiscal consolidation episodes, representing a 15.1 percent consolidation rate, and 17 successful episodes, which implies a success rate of 15.8 percent.

The rate of consolidation differs significantly across countries. Notably, the pattern of consolidation in tourism intensive economies is similar to the pattern of the overall sample declining consistently over time. The commodity exporting economies exhibited a somewhat different pattern, with fiscal consolidation picking up in 2000–2011. In particular, The Bahamas and Dominican Republic have the lowest rates of consolidation, 20.9 percent and 21.8 percent, respectively. The rate is high for Antigua and Barbuda, 40 percent, Dominica, 38.5 percent, Grenada, 36.4 percent, and Belize 34.3 percent. The prevailing economic conditions in each country, which indicate the need for fiscal adjustment, would account for the differences in the rates.

Table 2. Fiscal Consolidation in the Caribbean, 1980-2011

Country	Sample Period	No. of Cases	Years	No. of Successes	Years
Antigua and Barbuda	1992-2011	8	1995, 1996, 1998, 2000, 2003-04, 2007, 2010	4	1998, 2003-04, 2007
Bahamas, The	1988-2011	5	1992, 1994, 1996, 1998, 2003-04	1	1996
Barbados	1985-2011	8	1988, 1991-92, 1994, 1997-98, 2003, 2011	2	1994, 1997
Belize	1980-2011	11	1983, 1986-88, 1990, 1995-96, 2002, 2004-06	6	1986-88, 2004-06
Dominica	1986-2011	10	1991-93, 1995-96, 2001-03, 2005, 2010	4	1995-96, 2002, 2005
Dominican Republic	1980-2011	7	1984-85, 1989, 1991, 1995, 2004-05	6	1984, 1989, 1991, 1995, 2004-05
Grenada	1990-2011	8	1991-93, 1995, 2003-04, 2008, 2010	3	1991-92, 1995
Guyana	1991-2011	6	1999, 2002, 2004, 2007-08, 2010-11	4	1999, 2002, 2004, 2007
Jamaica	1983-2011	9	1984-86, 1988-89, 1998-2000, 2003	5	1985-86, 1988-89, 2003
St. Kitts and Nevis	1990 -2011	6	1992-93, 2001, 2003, 2005, 2009, 2011	3	1992-93, 2005, 2011
St. Lucia	1983-2011	8	1984-85, 1987, 1997-98, 2003, 2007, 2009	0	
St. Vincent and the Grenadines	1990-2011	7	1993, 1994, 1995-96, 1998-99, 2000, 2008, 2011	3	1993, 1994, 1995-96
Suriname	1990-2011	7	1992-94, 2001, 2003, 2005, 2007	6	1992-94, 2001, 2003, 2005
Trinidad and Tobago	1988-2011	7	1989-90, 1993, 1999, 2000-01, 2005, 2010	4	1990, 1993, 2001, 2005
Total		107		51	

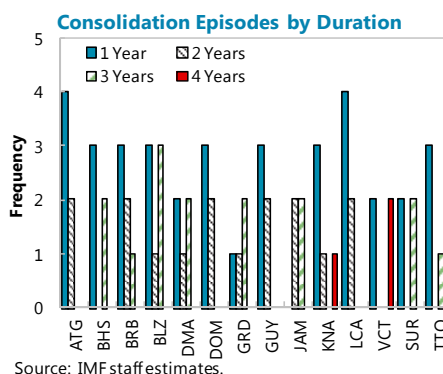
Source: IMF Staff Calculations

The success rates indicate mixed performances. The success rate of fiscal consolidation in the tourism intensive economies has declined consistently over time. On average, the rate is about 5 percentage points below the average of the overall sample over the period. In contrast, the commodity exporting economies have substantially higher success rate, exceeding the overall sample average by about 22 percentage points. Specifically, available data further suggests that consolidation efforts have not been successful in St. Lucia, while four other countries also recorded low successes, including The Bahamas, 20 percent,

Barbados, 25 percent, Dominica, 40 percent, and Grenada, 37.5 percent. The historically low public debt to GDP ratios of St. Lucia and The Bahamas could explain why fiscal consolidation as defined in the study failed to achieve significant debt reductions in those countries.

Successful fiscal consolidations are not necessarily associated with large improvements in the fiscal position in the year in which they occur. In some cases, the improvement in the CAPB was relatively moderate, while in others they were quite substantial. However, in many of the successful cases, the CAPB improved significantly preceding the year of success. For example, Barbados achieved a 5 percentage points debt reduction in 1994 by improving the CAPB by 1.1 percentage points that year. But, before this episode, the country had recorded higher improvement in the CAPB in 1991–92 without significantly reducing the debt.

The adjustment duration is short, perhaps reflecting the difficulty in sustaining fiscal effort. Half of the episodes lasted for a year, while about two-fifths lasted for 2–3 years. In particular, fiscal consolidation is predominantly of a 1–2 years duration in Antigua and Barbuda, Dominica, Guyana, and St. Lucia and between 1 and 3 years in Barbados, Belize, Dominican Republic, and Grenada. Jamaica has 2 to 3 years duration and The Bahamas and Suriname had 1 and 3 year episodes. Three countries had consolidation spells that lasted for 4 years—St. Kitts and Nevis (2003–2006), St. Vincent and the Grenadines (1993–1996 and 1998–2011), and Trinidad and Tobago (1999–2002). Over a longer episode, the improvement in the fiscal position is much larger reflecting the persistence of fiscal efforts.



The adjustment duration in the region is consistent with the experience in advanced countries. Tsibouris et al. (2006) find diversity in length and pace of fiscal adjustment noting that two-thirds of the adjustments were concentrated in the first year. Findings by Alesina and Ardagna (2009) show that 65 of 107 cases (about 60 percent) lasted for one year, 13 lasted for 2 years, 4 lasted for 3 years and only one lasted for 4 years.

C. Current Fiscal Consolidation Efforts in the Caribbean

Fiscal consolidation efforts in the Caribbean have been slow and steady. A number of Caribbean countries have embarked on fiscal consolidation with the objective of putting the debt to GDP ratio on a sustainable downward path and improving external stability. Recently, the emphasis has been on maintaining social stability and mitigating the impact of the global financial crisis.

Caribbean countries have adopted various tax and expenditure measures to reduce the fiscal deficit. While there is little ambiguity that Caribbean countries need to move swiftly to lower debt, the question of how much of the adjustment should come from spending cuts or tax increases, or which areas of government activity to tackle, will depend on country specific circumstances.

In most of the region, the emphasis has been on raising revenues as opposed to spending cuts. However, in countries with Fund supported programs, expenditure controls have been an important aspect of the fiscal consolidation strategy, as well as reducing losses in public enterprises. In a small number of countries where spending has been restrained, countries have preferred to reduce capital spending rather than current spending.

Table 3. Caribbean Economies: Illustrated Fiscal Adjustments
In Percent of GDP

Country	Stabilizing Debt in 2011		Reducing Debt to 60% by 2020	
	Primary Balance Needed	Fiscal Effort Needed	Primary Balance	Fiscal Effort Needed
Antigua and Barbuda	4.3	5.3	2.0	3.0
The Bahamas	0.4	2.7
Barbados	2.7	1.6	8.4	7.3
Belize	0.7	...	2.9	0.6
Dominica	1.3	3.6	0.4	2.7
Grenada	0.9	3.2	6.0	8.3
Guyana	-3.2	...	-1.6	1.5
Jamaica	2.7	...	10.9	6.4
St. Kitts and Nevis	3.8	...	10.6	0.2
St. Lucia	1.6	6.0	2.7	7.1
St. Vincent and the Grenadines	3.1	4.5	0.7	2.1
Suriname	-3.4
Trinidad and Tobago	0.9
Average	1.2	0.8	4.3	3.9

Source: Individual country DSAs, and Fund staff calculations

Even though fiscal consolidation efforts are ongoing in the region, countries are generating much lower primary fiscal surpluses than is needed to reduce the debt to GDP ratio. Given current high debt levels and fiscal prospects, we identified fiscal adjustment needed (defined as debt stabilizing primary balance minus actual primary balance) to stabilize and reduce debt in the medium term. When debt levels are high, large primary surpluses must be run to reduce the debt stock. The magnitude of the primary surpluses needed increases with interest rates and the initial debt stock, but varies inversely with real GDP growth.

Debt sustainability analysis suggests that stabilizing public debt to GDP ratios at 2011 levels would require adjustments in six countries (Table 3).¹¹ Stabilizing public debt would require fiscal adjustment efforts ranging from 1.6 percent of GDP for Barbados to 6.0 percent in St. Lucia. For the average Caribbean country, the adjustment would be around 1 percent of GDP. If the adjustments were to come mainly from spending cuts, this will translate into large real spending cuts for a number of countries. Since the 2011 debt ratios are high, stabilizing at this level will increase the vulnerability to shocks of Caribbean countries, particularly the very highly indebted ones. In this context therefore, it would be important for most countries to reduce their debt ratios to more manageable levels, such as 60 percent of GDP, by the end of the decade.¹²

Reducing public debt ratios to 60 percent of GDP by 2020 would require large fiscal adjustments in ten countries. Of these, four countries – Barbados, Grenada, St. Lucia and Jamaica would require a fiscal adjustment in excess of 5 percent of GDP relative to their primary balances in 2011. In particular, Barbados would require an adjustment of 7.3 percent of GDP and Jamaica 6.4 percent of GDP.¹³ The other six countries would require fiscal adjustments of between 0.2 to 3 percent of GDP.

Fiscal consolidation in the Caribbean has been accompanied by debt restructuring in some countries including Antigua and Barbuda, Jamaica and St. Kitts and Nevis. These countries recognized that fiscal adjustment alone could not ensure debt sustainability unless accompanied by a meaningful reduction in the public debt service burden, requiring burden sharing by all stakeholders. Antigua and Barbuda reached an agreement with the Paris Club in September 2010 on the rescheduling of the country's public external debt. The goal of the debt restructuring was to reduce the government's interest bill to 4½ percent of GDP in 2010, from 9 percent of GDP. St. Kitts and Nevis has negotiated a comprehensive and substantive public debt restructuring. Overall, the country expects that such a restructuring will yield substantial interest savings to help put public debt on a firm downward trajectory over the medium term.

¹¹ Several indicators have been proposed in the literature to measure fiscal sustainability. These include, the debt stabilizing primary balance, the debt benchmark, looking at the reaction of fiscal policy to higher public debt, and the natural debt limit. In this paper, we use two measures, the debt stabilizing primary balance, and the debt benchmark under uncertainty (See Mendoza and Oviedo, 2003, for details).

¹² An important issue that the paper is not addressing is the level of debt to which the Caribbean ought to adjust to.

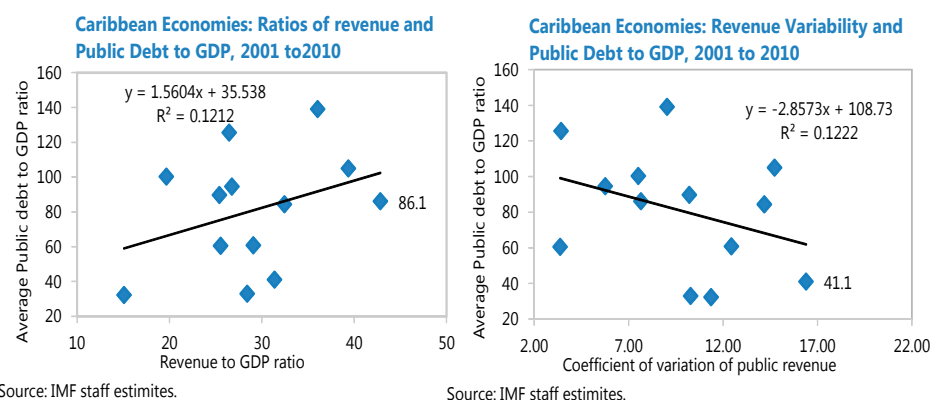
¹³ The results of the fiscal sustainability analysis in this section must be interpreted with caution, as it does not include contingent fiscal liabilities. Information on contingent fiscal liabilities is not readily available, but as the case of Belize has shown, recognition of these liabilities could substantially increase public debt and transform a previously sustainable fiscal path to an unsustainable one.

Box 6. Uncertainty and Debt Sustainability – Scenarios of debt benchmarks in the Caribbean

1. Using data for 2001–2011, the natural debt limit for Caribbean countries were calculated based on their history. The natural debt limit is calculated as the minimum revenues (median level of (T) revenues less two standard deviations) the minimum public spending ratio (the median primary (G) expenditure levels less two standard deviations), discounted by the maximum real interest rates (r- interest rate plus standard deviation) less minimum real growth (g) less its standard deviation). B_{nl} is the natural debt limit. That is;

$$B_{nl} = \frac{T^{Min} - G^{Min}}{r^{Max} - g^{Min}}$$

The key idea here is that the minimum primary balance generated indicates the fiscal stance that the authorities can credible commit to in the presence of economic shocks going forward.



2. The natural debt limit varies considerable between countries in the Caribbean. The natural debt limit is related to the discount factor as well as the level and volatility of revenues and spending. Countries with higher tax revenues to GDP and lower revenue variability are in general likely to have a higher natural debt limit. Using data for various years for different countries reveals that, in general, countries within the region with higher revenues to GDP and a lower coefficient of variation in revenues do indeed have a higher level of debt to GDP compared with other countries.

Table 1. Caribbean Economies: Measures of Debt Sustainability - Natural Debt Limit
(In percent of GDP)

Countries	Years	Expenditure Ratio	Revenue Ratio	COVE	COVR	Discount Factor	2011 Debt Ratio	2011 Natural Debt Limit/1	Over borrowing Ratio
ATG	1997 to 2011	20.8	19.3	16.5	7.9	10.4	93.4	28.3	3.3
BHS	1997 to 2011	14.8	15.1	14.9	10.3	8.9	48.9	17.7	2.8
BRB	1994 to 2011	36.4	35.2	11.2	6.3	7.9	116.8	31.9	3.7
BLZ	2001 to 2011	24.6	25.8	11.6	9.8	6.4	84.7	28.3	3.0
DMA	1999 to 2011	32.1	32.1	14.6	13.8	9.6	67.3	5.7	11.8
GRD	1990 to 2011	24.9	23.0	11.5	7.2	9.1	101.2	6.3	16.1
GUY	2001 to 2011	29.6	28.2	10.1	6.2	7.8	65	13.6	4.8
JAM	2001 to 2011	17.0	26.3	14.6	4.6	13.5	140.5	87.9	1.6
KNA	2003 to 2010	27.8	30.0	6.6	7.5	9.0	163.5	15.4	10.6
LCA	1990 to 2011	25.6	25.3	9.8	7.0	9.2	71.8	12.1	5.9
SVG	1990 to 2011	25.7	25.0	8.8	7.0	7.7	69.2	5.4	12.8
SUR	2001 to 2011	26.5	27.6	10.5	9.8	6.3	20	20.5	1.0
TTO	2001 to 2011	27.5	31.6	19.7	15.9	8.3	42	57.5	0.7
Caribbean Median		25.7	26.3	11.5	7.5	8.9	71.8	17.7	3.7

Source: IMF staff estimates

1/ This is based on actual real growth rates along with an assumed EMBI real market interest rate of about 5.5 percent with a standard deviation of 2 percent.

3. The extent of over or under borrowing is measured by the ratio of the actual debt ratio to the derived natural debt limit for each country. A ratio greater than one indicates a country that has over borrowed and a ratio less than one indicates under borrowing. Based on the illustrative simulation, given the level of volatility faced by Caribbean countries they should seek to keep their debt ratios close their natural limits (see table 1).

D. Fiscal Consolidation in Selected Caribbean Countries

This section reviews recent fiscal consolidation efforts in Barbados, Jamaica, and St. Kitts and Nevis and draws common lessons from these countries' experiences.

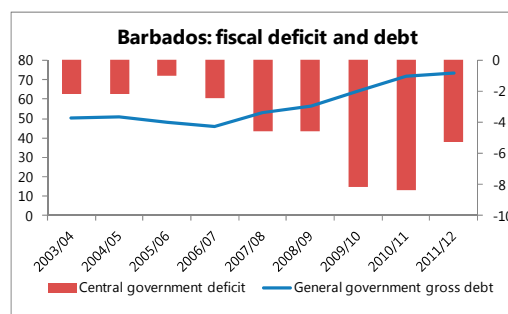
Following the global financial crisis and the resulting huge increase in the debt to GDP ratio, these three countries started consolidating government finances in order to reduce public debt and enhance external sustainability.

A look at the fiscal consolidation experiences in these countries reveal (i) a holistic approach, (ii) quick implementation of short-term measures, and (iii) steady progress on structural reforms. Fiscal consolidation efforts in these countries involve a holistic approach that considers all possible improvements in revenue and expenditure reduction that could help deliver the expected results. Since multipronged consolidation efforts often take some time to materialize, quick implementation of short-term measures, such as a temporal freeze of public wage and a temporal increase of a tax rate, have been helpful in showing governments' commitments and in creating some instant fiscal space. These countries have also made steady progress on structural reforms, which is important to successful fiscal consolidation. However, weak tax administration and debt management capacities; vulnerability to spillovers from the global economy and to natural disasters; and optimistic assumptions in fiscal consolidation plans have continued to slow the pace of fiscal reforms in these countries.

Barbados

Barbados was severely affected by the global economic crisis and the impact continues to be felt throughout the economy. Economic activity contracted by a cumulative 5 percent between 2008 and 2010 with adverse impacts on the labor market. The unemployment rate almost doubled from 6.7 percent to 12.1 percent in June 2011.

The government responded to the economic slump by increasing current spending to limit employment losses and shield vulnerable groups. These efforts widened the fiscal deficit and increased public debt by more than 20 percentage points of GDP since 2008, exacerbating an already high debt level. In light of the deteriorating public finances, the government developed a Medium-Term Fiscal Strategy (MTFS) in early 2010 to reduce the fiscal deficit, balance the budget and reduce the debt to GDP ratio. The MTFS went off track in the first year of implementation due to weak global conditions and low revenues. A revised plan with loosened targets is currently being implemented.



Fiscal consolidation in Barbados began with a front loaded adjustment based on revenue enhancing measures. The government increased the VAT rate from 15 to 17.5 for a period of 18 months and excise taxes on gasoline by 50 percent. Tax free allowances for

travel and entertainment were eliminated, bus fares were raised and some fees and charges for dispensary services were adjusted.

The authorities also enumerated a number of expenditure reduction measures, but political economy considerations have made their implementation very difficult. Some of the expenditure measures outlined in the medium term fiscal strategy include:

- Containing public sector wages by restricting wage growth to be equivalent to the amount normally paid as increments.
- Reducing the level of spending on goods and services by increasing the efficiency of procurement through better sourcing.
- Capping transfers to statutory boards, statutory corporations and state owned enterprises and allowing some state owned enterprises to borrow directly from the National Insurance Scheme (NIS).

Progress on lowering expenditures has been slow and the 2012/13 budget has no expenditure cutting measures as expenditures are projected to broadly remain unchanged as a percent of GDP. The Fund has advised the authorities to discourage direct lending by the NIS to public enterprises.

Fiscal consolidation has helped to improve fiscal performance in Barbados. The fiscal year 2011/12 central government deficit narrowed to 4.5 percent of GDP from 8.3 percent of GDP in 2010/11. This outturn reflected cuts in capital spending and lower transfers to state owned enterprises, as a large sum (1½ percent of GDP) was taken off budget and replaced by loans from the National Insurance Scheme directly to those enterprises. The 2012/13 budget targets a central government deficit of 4.3 percent of GDP.

With public debt on an unsustainable path, the Fund has advised the authorities to make MTFs more ambitious and, at the minimum, aim at reducing the public debt by about 15 percentage points of GDP over 5 years. Debt sustainability analysis suggests that the envisaged fiscal target under the MTFs would not be enough to reduce the vulnerability of public debt. Public debt would not follow a sustained downward path under most standardized shocks unless a more ambitious fiscal consolidation plan is implemented to reduce debt further in the medium-to-long term. The Fund has also stressed the need for MTFs to cover state enterprises and to be based on realistic macroeconomic assumptions. In particular, the current assumption of average GDP growth of around 2.5 percent in the medium term seems on the optimistic side.

The Fund has also recommended focusing fiscal consolidation on expenditure reduction with revenue measures focusing on improving tax administration and reducing exemptions. Since room for further tax increases is limited, measures to contain wage spending and reducing transfers to public enterprises need to remain key elements of the MTFs. The Fund has also recommended extending the temporary increase in the VAT rate, which the authorities have implemented, and developing a plan to reduce tax exemptions currently estimated at 5.6 percent of GDP.

Jamaica

Jamaica has a history of low growth and high debt. Real GDP growth over the past three decades has been relatively low, perhaps reflecting deep-rooted competitiveness problems, exposure to natural disasters and macroeconomic risks arising from fiscal and external imbalances. At the same time, public debt, which is very sensitive to exchange rate and interest rate shocks, remains among the highest in the world, at about 140 percent of GDP in 2009/10.

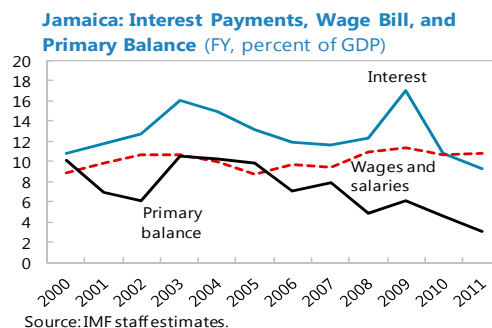
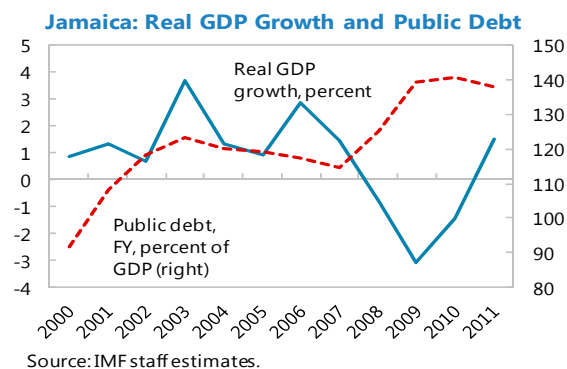
A combination of high interest burden, heavy wage bill, and losses from public enterprises pose further challenges. The

country has maintained large primary surpluses of on average some 8 percent of GDP to finance the interest bill, which during 2009/10 rose to 17.1 percent of GDP. Since the mid-1990's, public sector wages in percent of GDP have fluctuated between 10 to 12.5 percent as the government is the largest employer of labor.

In the context of the 2010 Stand-by-Arrangement (SBA), the government had a domestic debt restructuring in January 2010. The Jamaican Debt Exchange (JDX), which covered domestic debt, secured close to 100 percent participation and achieved an NPV reduction of 15–20 percent through lower coupon rates. As a result, the public sector interest bill fell to 10 percent in 2011/12 from 17 percent in 2009/10. At the same time, the maturity profile of domestic debt increased from 4.5 to 9.8 years. Positive market reception of the fiscal consolidation embedded in the JDX lowered interest rates. Overall, the JDX could be considered as a temporary alleviation of the debt problem.

However, the planned fiscal consolidation failed to materialize. The 2010 SBA was broadly on track initially. However, policy slippages in 2011 especially on the fiscal front led to program targets being missed by wide margins. The failure of fiscal consolidation reflects higher than anticipated public sector wages following a decision to clear the full amount of wage back-payments, lower tax revenue (associated with widespread use of tax incentives and waivers, and weak administration) and delays in the privatization of the loss-making Clarendon Alumina Plant (CAP).

Despite progress with structural reforms, more is needed to improve competitiveness and growth. The government has successfully divested from loss-making public enterprises, such as Air Jamaica and the sugar estates; a new fiscal responsibility law was passed in 2010; and a new Tax Administration Jamaica (TAJ) was created and is functional. Nonetheless, key fiscal reforms have been delayed, including public sector rationalization, tax and pension reform, Central Treasury Management System (CTMS) reform, the divestment from CAP,



while the TAJ has yet to address the erosion of the tax base. Furthermore, while interim measures to cap discretionary waivers were introduced in November 2010, a more comprehensive reform to scale back incentives is lacking. The authorities are developing an economic program to address the challenges of low growth, fiscal sustainability and high debt.

St. Kitts and Nevis

A series of shocks have led to a sizable accumulation of debt in St. Kitts and Nevis over the last decade. Following a succession of hurricanes in the late 1990s, the sharp drop in tourism after the September 11 attacks, and the closure of the loss-making sugar industry and assumption of its debt, the central government debt quickly increased in the early 2000s, from 62 percent of GDP in 2000 to 109 percent of GDP in 2006.

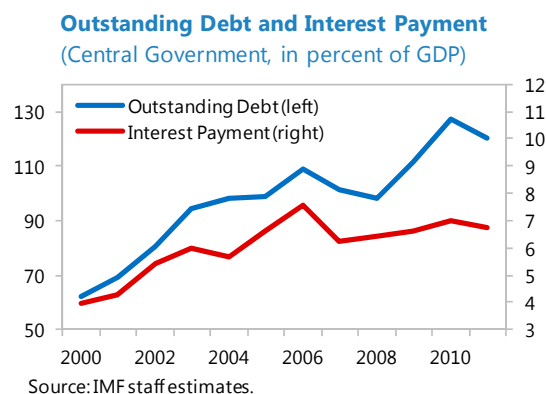
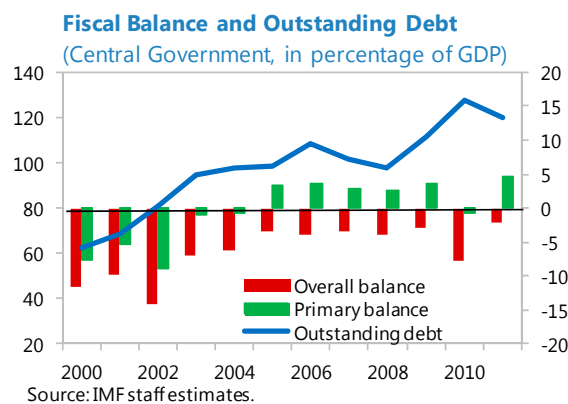
Although the outstanding debt in percent of GDP declined in 2007 and 2008, due to a buoyant economy and the strengthened tax administration, it strongly increased again in the wake of the global economic crisis in 2008. This led to a fall in tourism and FDI-related constructions, which had been driving growth in recent years.

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Rising debt service costs have been a challenge for the government. In addition to a high debt level, the increased use of the expensive overdraft facility since 2005, which reflects the government's limited access to other forms of financing, has exacerbated the heavy debt service burden. Interest payments reached its peak at 7.6 percent of GDP in 2006. Although the government successfully reduced the overdraft in 2008, it has returned to tapping the overdraft in 2009, responding to the economic slump. High debt service costs,

which have taken nearly 30 percent of total government revenue in recent years, leave little room for maneuver to respond to adverse shocks.

Faced with increasing fiscal imbalances, the authorities started to implement a strong fiscal adjustment program in 2010. On the revenue side, they introduced a Value Added Tax (VAT) and implemented a number of tax reforms. Other measures implemented include streamlining import duty exemptions, strengthening auditing and monitoring of duty free shops, introducing an environmental levy on new vehicles, restructuring the Housing and Social Development Levy, and increasing electricity tariffs. On the expenditure side, the authorities froze public wages. The expected benefits from these revenue reforms and expenditure cuts started to materialize in 2011.



In order to achieve fiscal and debt sustainability, the government set up a multipronged reform agenda and requested support under a 36 month Fund program in 2011. The strategy was focused on: (i) achieving ambitious primary fiscal surpluses; (ii) lowering the debt service burden; and (iii) further strengthening the financial sector. Notwithstanding the fiscal adjustment, it was also agreed that a comprehensive and timely public debt restructuring was crucial for the program to be fully financed and to achieve debt sustainability. Debt restructuring, it was argued, would complement the ongoing fiscal effort, ensuring burden sharing by all stakeholders.

Since the inception of the Fund program in July 2011, the authorities have steadfastly implemented their economic program and begun to achieve positive results. Although the economic outturn has been weaker than projected, the authorities have met all quantitative performance criteria and completed the structural benchmarks of the Fund program. The authorities have also made progress in a comprehensive debt restructuring, including a successful completion of the restructuring of bonds and external commercial debt, an agreement of the debt-land swap with domestic creditors, and an agreement with their Paris Club creditors. Discussions with other bilateral official creditors are aimed at reaching comparable terms with Paris Club agreement. Negotiations on debt not covered by the debt-land swap and those held by the Social Security Board are still ongoing.

Although the restructuring of the public debt is expected to place it on a declining trajectory, the debt sustainability analysis indicates that the debt trajectory could be flattened by an adverse growth shock. This highlights the importance of safeguarding the implementation of the program and planning for contingencies on an ongoing basis.

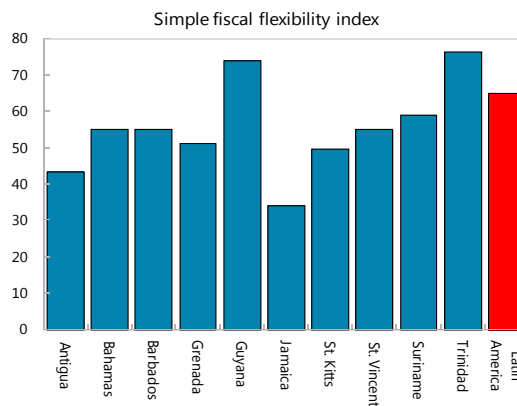
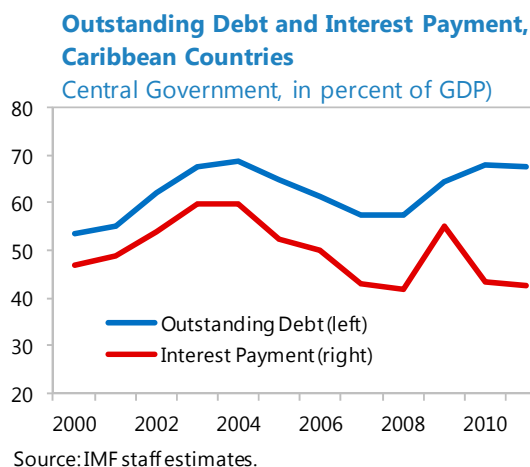
Overall, the whole debt restructuring is anticipated to lead to a sizable reduction in total public debt and set debt on a sustainable medium-term trajectory, together with the continued strong fiscal consolidation efforts. Going forward, it is essential to sustain the pace of both fiscal and structural reforms in order to achieve the medium-term fiscal goals, including a debt to GDP ratio of 60 percent by 2020, even if the sluggish global environment continues. Ongoing efforts in broadening the tax base are also encouraged to secure additional tax revenue. In addition, it is important to ensure that the debt-for-land swap does not impair the resilience of the domestic financial sector by proceeding with resulting land sales at a swift pace.

V. CHALLENGES TO FISCAL CONSOLIDATION IN THE CARIBBEAN AND LESSONS FROM THE LITERATURE

This section examines the challenges to fiscal consolidation in the current economic environment. It also reviews fiscal consolidation experiences in other regions and the empirical literature on successful fiscal consolidation to derive important policy messages.

A. Challenges to Fiscal Consolidation in the Caribbean

Fiscal adjustment in the Caribbean faces a number of challenges including high debt levels, fiscal rigidities, the slow pace of the global recovery and the limited scope for significant revenue increases in some countries.



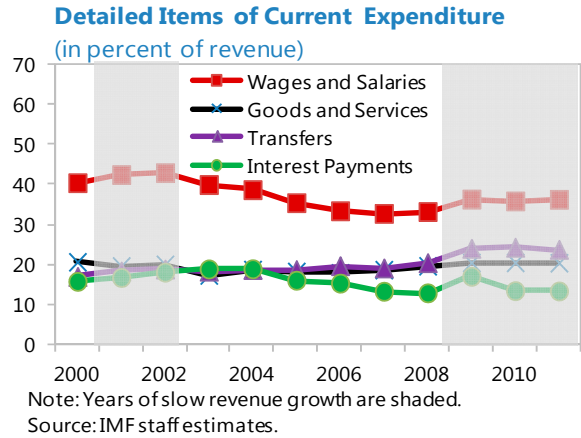
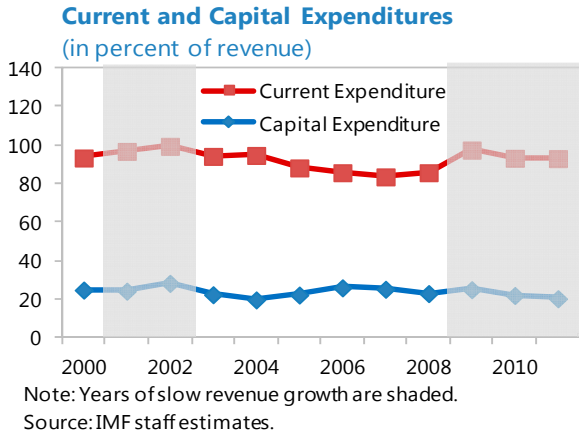
High debt levels: The high debt levels of the region make fiscal consolidation very difficult. Interest payments of the central government co-moved with the debt level in the Caribbean, except for the period of debt restructuring in Antigua and Barbuda and Jamaica. For many Caribbean countries, interest payments comprise a significant proportion of total expenditure (see charts). The high debt level also implies that a substantial fiscal adjustment is needed to bring down the debt discouraging efforts to consolidate government finances.

Fiscal rigidities: In many countries, fiscal expenditures are mostly committed to wages, interest payments and social security, limiting the flexibility of fiscal adjustment. A simple index of fiscal flexibility, defined as the size of government spending that can be characterized as discretionary, was constructed. We defined fiscal flexibility as:

$$FFI = \left(1 - \frac{NDS}{TGS}\right) * 100$$

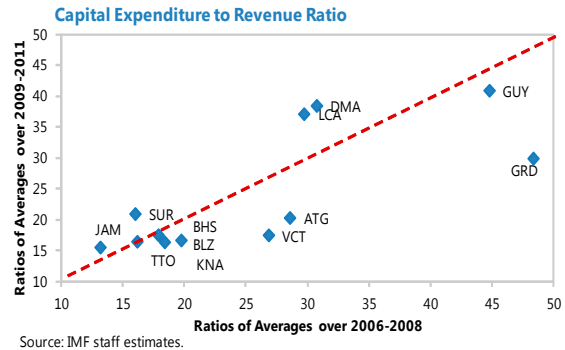
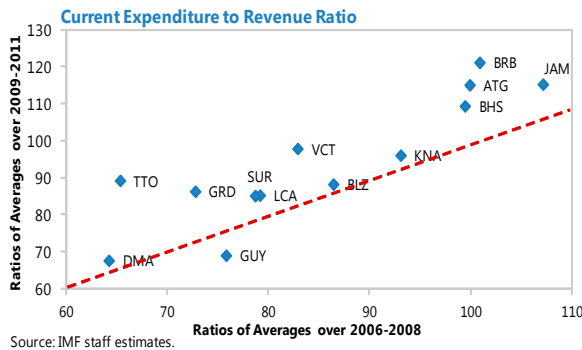
Where NDS is non-discretionary spending defined as expenditure on wages and salaries, transfers and interest payments. The maximum value of the index without the correction factor is 100 indicating total fiscal flexibility. The analysis shows that fiscal rigidities are significantly smaller in Latin American countries than in the Caribbean making fiscal adjustment much more difficult in the region.

Current expenditure tends to be more rigid than capital expenditure, when revenue growth slows down (see charts). Current expenditures as a percentage of total revenues rose in a period of slow revenue growth. The rise in current expenditure as a percentage of total revenue was larger during 2009–2011, when the slowdown of revenue growth was more pronounced.

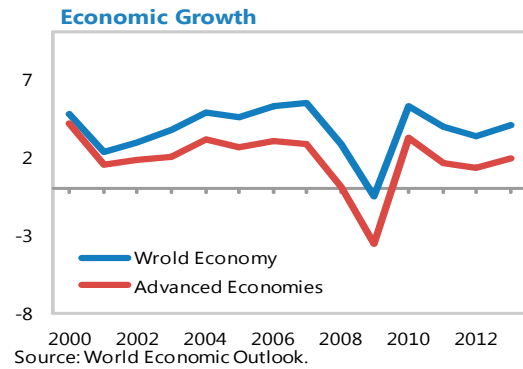
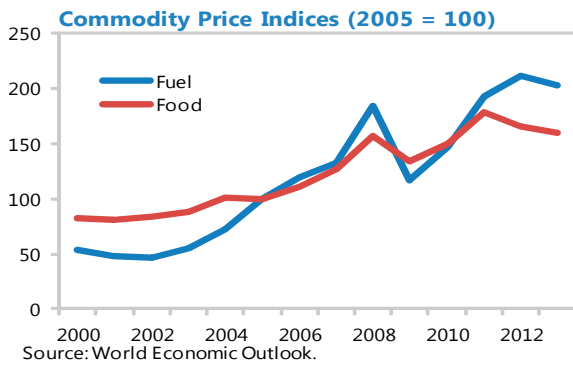
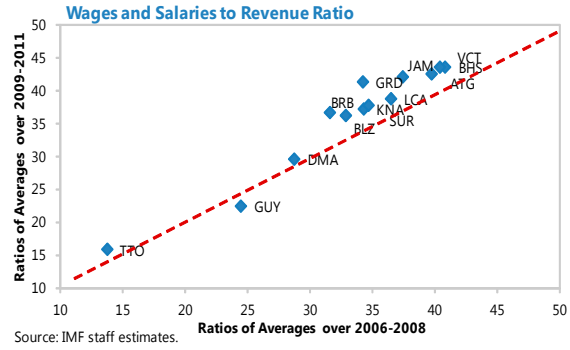
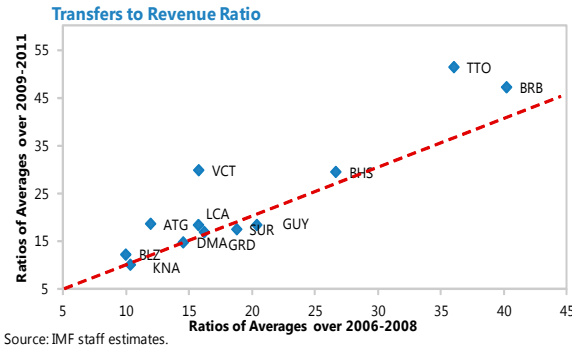


Rigidity in current expenditure is accounted for by non-discretionary expenditures, including transfers, wages and salaries, and interest payments. In 2009, all of these expenditures in percent of revenue increased by over 3 percentage points. Transfers and wages and salaries have not returned to their pre-crisis levels. The decline in interest payments in 2010 was due to the large debt restructurings in Antigua and Barbuda and Jamaica.

A higher rigidity in current expenditure than in capital expenditure was observed in many countries during the recent crisis. Current expenditure in percent of revenue increased after the crisis in most countries (see chart), while capital expenditure in percent of revenue did not follow a similar pattern.



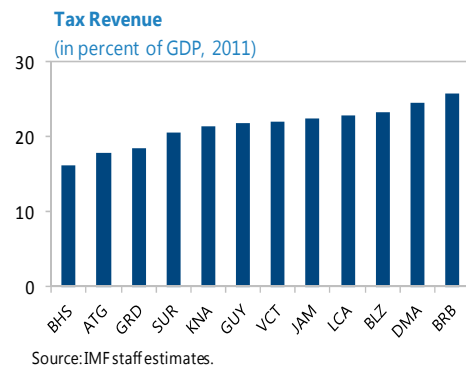
Transfers were responsible for a greater part of the rigidity in current expenditure during the crisis. Transfers in percent of revenue sizably increased after the crisis in some countries, ranging from about 7 percent in Barbados to 15 percent in Trinidad and Tobago. The rise in transfers in percent of revenue partly reflects counter-cyclical components, such as unemployment benefits. Wages and salaries in percent of revenue also increased in most countries and accounted for some of the rigidities in current expenditure.



Global economic conditions: The current weak global growth rates and high commodity prices raise serious concerns about how Caribbean countries can revamp growth. High commodity prices continue to exert pressure on the fiscal stance and the current account for commodity importing countries.

Limited scope for tax increases: Some countries have very little room for strong fiscal efforts on the revenue side given that tax collections are already very high. Tax collections in Barbados, for instance, amount to 26 percent of GDP in 2011.

Despite these challenges, there is a need to reorient fiscal policy in the region given that debt levels are high. There is currently no fiscal space that can be used, as in the past, to boost economic growth. Rather, the countries need to adjust to lower their debt ratios. Fiscal multipliers in the Caribbean are quite low (see box 5) suggesting that any negative impact of fiscal consolidation on growth would be smaller than in other countries. Caribbean countries can learn from successful fiscal consolidation in other regions to guide their current efforts.



B. Lessons from Country Experiences and the Empirical Literature

In this section, we explore specific country experiences with fiscal consolidation dating back to the 1990s and the empirical literature on successful fiscal consolidation. A total of

25 cases are considered, consisting of 14 advanced, 8 emerging markets, and 3 developing economies (including Barbados and Jamaica). We focus on the prevailing economic and political conditions preceding fiscal consolidation, the measures adopted, the composition of adjustments and the achievements.¹⁴ The main lessons are summarized below.¹⁵

Table 4: Fiscal Adjustment Basis by Country

Revenue	Expenditure	Mixed
Brazil, Cote d'Ivoire, France, Jamaica, Nigeria, Ireland, United States, Zambia	Canada, Chile, Finland, Germany, Lebanon, Lithuania, Netherland, South Africa, Spain, Sweden, United Kingdom	Barbados, Denmark, Japan, New Zealand, Russia
Source: IMF Staff Estimates		

¹⁴ Over the period in focus, many of countries had fixed exchange regimes, and thus share similar features with the Caribbean countries.

¹⁵ This draws mainly on two studies: Kumar, Leigh and Plekhanov, 2007, and Tsibouris et al., 2006. Kumar, Leigh and Plekhanov, 2007, analyzed 14 cases in the OECD including Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Spain, Sweden, UK, and US. Tsibouris et al., 2006, focused on large adjustments, examining a much wider sample including Brazil, Cote d'Ivoire, Jamaica, Lebanon, Lithuania, Nigeria, Russia, South Africa, and Zambia.

Box 5. Fiscal Multipliers in the Caribbean

The recent global financial crisis has drawn renewed attention to the effectiveness of fiscal policy, as many countries implemented fiscal stimulus measures to boost economic activity. The effectiveness of fiscal policy is often assessed by the size of the “fiscal multiplier,” which measures a change in output generated by a change in government expenditure.

Different multipliers are used in the literature, depending on the time frame considered. The most frequently used measure is the *impact* multiplier, which is defined as $\Delta Y_t / \Delta G_t$, where ΔY_t is a change in output and ΔG_t is a change in government expenditure in period t . It measures the increase in output generated by an additional dollar in government spending in period t . Another frequently used notion is the *cumulative* multiplier, which is defined as $\sum_{j=0}^N \Delta Y_{t+j} / \sum_{j=0}^N \Delta G_{t+j}$. Since fiscal stimulus packages can only be implemented over time and there may be lags in the economy’s response, the *cumulative* multiplier may be more accurate in capturing the impact of fiscal policy.

The size of the fiscal multiplier varies with countries, time periods, and circumstances. Previous studies have shown several stylized facts (Spilimbergo et al, 2009; and Ilzetzki et al, 2009): (1) the response of output to increased government spending is smaller on impact and less persistent for developing countries than for high income countries; (2) the cumulative multiplier is about 1.5 after 24 quarters for economies under predetermined exchange rate regimes, but it is essentially zero in economies under flexible exchange regimes; (3) economies with relatively low degrees of openness to trade (measured as exports plus imports as a proportion of GDP) have a cumulative multiplier of around 1.6 after 24 quarters, but relatively open economies have an almost zero multiplier; and (4) the response of output to an increase in government expenditure is less persistent for highly-indebted countries than in countries with low debt to GDP ratio.

Fiscal multipliers in the Caribbean are quite low and the contemporaneous fiscal stance appears to be pro-cyclical. Guy and Belgrave (2012) found that the cumulative multipliers are less than 0.3 after 24 quarters in all sample countries and they are negative in some of them, suggesting that fiscal expansions may have weakened fiscal sustainability and decreased confidence of economic agents. That is, Keynesian effects are not evident, implying that fiscal policies as a tool of economic stabilization may not be very useful. Actually, none of the sample countries adopted a counter-cyclical fiscal policy stance. Guy and Belgrave (2012) argue that although public expenditures are initially increased in a downturn to stimulate productive sectors, they are typically not sustained due to the constraints of declining revenues and high debt ratios. The modest Keynesian effects in the Caribbean countries could be due to a combination of factors discussed in the literature, such as the degree of openness and high debt levels.

It is easier to build broad consensus about the need for fiscal consolidation in difficult times. Fiscal consolidations were initiated during periods of economic recession, or at early stages of a recovery, which is often characterized by macroeconomic imbalances in the form of worsening fiscal deficits, high debt levels, current account deficits, high unemployment, and high inflation. More than 75 percent of the episodes in the 14 advanced countries were initiated against the background of weak growth, except in the cases of U.K. and New Zealand.

Significant fiscal consolidations were initiated by new governments. In particular, about three-quarters of the episodes in advanced countries were started by new governments, many with an explicit mandate for fiscal consolidation. In emerging economies, a sizable number of the fiscal consolidation episodes were started by new governments. In Brazil, for example, consensus on the need for fiscal consolidation was bolstered by new governments elected in 1999 and 2003. In South Africa, consolidation coincided with the transition to majority rule, which marked the end of the apartheid era. New governments are favored to undertake fiscal adjustment because they have low political costs of fiscal adjustment, are believed to propose new approaches in addressing existing problems, and have scope to develop a medium-term strategy for fiscal adjustment with maximum ownership.

Fiscal consolidation based on expenditure reductions have tended to be more effective than tax based consolidations. A probable reason is that expenditure measures reflect greater commitment, make substantial consolidation more feasible, and can lead to efficiency gains (Price, 2010). The compositions of adjustment were a mixture of revenue and expenditure measures with many countries leaning toward expenditure-based reductions. Expenditure measures accounted for a 85 percent improvement in fiscal balances in Canada and Finland and 75 percent in the Netherlands, Sweden and the UK. In New Zealand, it was a combination of revenue (60 percent) and expenditure (40 percent) measures. In the wider sample considered by Tsibouris et al. (2006), findings indicate that expenditure cuts made up three-quarters of the total effort in the sustained large adjustments.

In several successful episodes, spending cuts adopted to reduce deficits were associated with economic expansions rather than recessions. The more successful expenditure-based consolidations focused on cuts in transfers and wages, the so-called politically sensitive budget items. Country experiences show that expenditure-based adjustments, especially focusing on current expenditure – reductions in wage bill and social spending – were more sustainable. Expenditure cuts were spread across multiple spending categories and institutions, with sizable reductions in wage bill and social security spending, including transfers, healthcare, and unemployment benefits, made important contributions to fiscal adjustment, especially in Canada, Finland, Spain, and the Netherlands. The empirical literature also finds cuts in transfer programs and government wage expenditures as more effective than capital expenditure cuts (Alesina and Perotti, 1997). Adjustments that lasted longer were driven by reductions in wages and transfers and cuts in wages, transfers and subsidies contributed about 86 percent on average to successful cases (Von Hagen, Hughes-Hallet and Strauch, 2002).

Frontloaded adjustment emphasized revenue measures, while gradual adjustment relied on cuts of primary current spending. In advanced countries, gradual adjustments were more successful and sometimes extended up to a decade, for example in Finland, Sweden and Spain. This reflects efforts to anchor policy objectives within a medium-term framework with a credible commitment to adopted strategies. However, in a wider sample, including emerging markets and developing economies, frontloaded and gradual adjustments were equally likely to succeed, with enduring frontloaded cases emphasizing revenues than did the gradual cases, particularly trade taxes and non-tax revenues.

Box 6. Evidence on Expansionary Fiscal Consolidation – Non-Keynesian Effects

Evidence suggests that fiscal consolidation can be expansionary in the short run. A prominent view – demand side or expectation channel – which is contrary to conventional wisdom, suggests a strong private sector response to fiscal consolidation, operating through wealth effects on consumption and credibility effects on interest rates. To be effective, fiscal consolidation must be understood as part of a credible plan designed to permanently reduce the government deficit and therefore future tax liabilities, (Giavazzi and Pagano, 1995; and Giavazzi, Jappelli and Pagano, 2000). The offsetting effect of private sector demand is more pronounced at high debt levels (Perotti, 1999; and Bhattacharya, and Mukherjee, 2012). An alternative view – supply side or labor market channel – underscores the importance of adjustment composition suggesting that income tax increases and wage and transfer cuts have opposite effects on private sector labor costs and therefore competitiveness and growth (Ardagna, 2004; and Alesina and Perotti, 1995). A recent study using a somewhat different measure than the conventional definitions of fiscal stance shows that fiscal consolidation has short run contractionary effects on private domestic demand and output (Guajardo, Leigh and Pescatori, 2011).

Over the medium term, fiscal consolidation may not trigger an economic slowdown. Fiscal consolidation can be good for growth even in the medium term. Coenen, Mohr and Straub, 2008, identify positive long-run impacts on macroeconomic aggregates, such as output and consumption, when the resulting improvement in the budgetary position is used to lower distortionary taxes. Reductions in public debt lower interest payments, enhancing the prospects of lowering taxes, which in turn stimulates economic activity. Similarly, Kumar, Leigh and Plekhanov, 2007, find positive long run effects, through creation of fiscal space after debt reduction, which permitted cuts in corporate income taxes.

Nevertheless, there are short-run adjustment costs and distributional effects. Contrary to what the literature suggests, Coenen, Mohr and Straub, 2008, demonstrate that irrespective of the strategy adopted, adjustment costs are evident. The distributional effects can be pronounced depending on the adjustment strategy, and in particular, on the extent to which households differ with regard to their ability to participate in asset markets and their dependence on fiscal transfers.

The effects of fiscal consolidation reflect the adjustment composition. In their studies, Giavazzi and Pagano, 1990, and 1995, find that spending cuts (including on transfers) and tax increases were accompanied by a private consumption boom following large fiscal consolidations. However, there would appear to be a consensus that spending cuts are much more effective than tax increases in stabilizing public debt and avoiding economic downturn. In particular, large, credible and decisive expenditure-based consolidation is less likely to cause a recession (Alesina and Ardagna, 2009; Alesina, 2010; and Alesina, Carloni and Lecce, 2012). This point is further buttressed by Ardagna's, 2004, result that spending cuts led to higher GDP growth. Guajardo, Leigh and Pescatori, 2011, find that consolidation implemented mainly through tax increases rather than cutting expenditure induces a sharper decline in private demand.

Successful revenue measures focused on broadening the tax base and reforms to simplify tax administration and reduce the tax burden. Base broadening measures were common in countries with more developed revenue administrations and longer period of implementation, including in Brazil, Canada, Finland, New Zealand, and South Africa. In some cases, tax reforms resulted in tax buoyancy and higher revenues over the medium term. Revenue-based adjustment was sustained when the revenue-to-GDP ratio was low. Tax measures focused on higher fees, excise taxes and commodity taxes, as in Barbados, Jamaica,

and Russia, which appeared to have been relatively easy to evade. Measures that relied on a narrow tax base and weak administration were unsuccessful.

Adjustment efforts were also enhanced by broad political consensus and public support. The presence of an external political or economic anchor influenced fiscal adjustment, especially in Europe in the 1990s, where the need to achieve membership of the EMU was the motivating factor. In that context, introduction of a broad medium-term strategy was important in mobilizing public support. Strong political leadership was needed to ensure continuity of fiscal consolidation, as the experiences of the US and Japan illustrate.

Structural reforms included introduction of medium-term fiscal policy frameworks, organic budget laws, and tax and institutional reforms. It also covered reforms of healthcare, pension, unemployment benefits, etc. A medium-term expenditure framework helped set and meet multi-year priorities and build credibility. Reforms of budgeting were notable in Brazil, Canada, Lithuania, New Zealand and South Africa. Expenditure management and treasury operations were strengthened in Lebanon, Lithuania, Russia, and South Africa. Some countries incorporated long term fiscal sustainability analysis into the medium-term policy framework. Tax reforms were very common: Canada, Finland, and New Zealand reduced personal and corporate tax rates, eliminated exemptions, and taxed previously non-taxed income sources. Value added taxes were introduced, for example, in Nigeria and Russia. Several other countries strengthened tax administration including South Africa, Zambia, Cote d'Ivoire and Russia.

The size of the initial adjustment may determine the success of fiscal consolidation. The empirical literature finds that there appears to be a size effect in successful fiscal consolidations. The larger the initial adjustment, measured by the change in primary fiscal balance, the larger is the likelihood of success (Ardagna, 2004). In addition, initial conditions, particularly large initial deficits and high interest rates, have boosted the size and duration of fiscal adjustments (Guichard et al., 2007). Higher GDP growth matters, but does not drive the success of consolidation (Ardagna, 2004).

The size of fiscal consolidation is significantly larger and the consolidation efforts sustained for longer when fiscal rules were present. Econometric evidence shows that fiscal rules, in particular those that focus on expenditures, have affected several dimensions of fiscal consolidation. The size of fiscal consolidation is significantly larger and the consolidation efforts are more successful in countries with fiscal rules particularly expenditure based rules. The adoption of a spending rule on top of a budget balance rule helped in the achievement and maintenance of a primary balance that was sufficient to stabilize and reduce the debt to GDP ratio.

Supportive external and domestic conditions are essential. Findings by Kumar et al., 2007 suggest that a supportive domestic and international growth environment facilitates adjustment efforts. Heyden and Evaraert (1998) also noted that the chances of consolidation being successful rise with a favorable external environment, high economic growth, and low interest rates.

VI. CONCLUSION AND POLICY RECOMMENDATIONS

Highly indebted Caribbean countries should generally aim to lower their debt levels in order to reduce vulnerability and to create a better platform for growth. The question most countries are asking is how to lower debt. Our analysis showed that by consolidating government finances and improving primary balances, countries could signal their determination not to default or inflate the debt away. This would help improve credit worthiness and reduce borrowing costs. Caribbean countries can draw lessons from successful fiscal consolidation efforts in other regions to guide their fiscal consolidation efforts. Generally, expenditure based consolidations with a focus on reducing current spending tend to be more successful than tax based consolidations.

Box 7. Designing and Implementing a Fiscal Consolidation Plan: A Checklist

The IMF's Fiscal Affairs department has outlined a number of questions on a checklist to follow when designing and implementing a fiscal adjustment plan:

- Does the proposed adjustment deliver a credible change in debt dynamics?
- Is the size and pace of adjustment appropriate in light of macroeconomic conditions, political considerations, and the need to avoid reform fatigue?
- Are financing constraints taken into considerations?
- Is the operational target for the fiscal consolidation path well defined and well understood? Does it have adequate institutional coverage?
- Does the composition of adjustment take into consideration the size of the public sector?
- Are high quality measures chosen for the adjustment?
- Are targets met without shifting items off-balance sheet?
- Are external factors (if existing) leveraged to the full?
- Are supporting institutional and structural reforms in place?
- Are public enterprises appropriately covered and do sub-national levels of government contribute to the adjustment?
- Are distributional effects of the adjustment taken into account?
- Is the adjustment strategy appropriately communicated so as to mobilize broad-based political and public support?

Source: Fiscal Affairs Department, International Monetary Fund

Caribbean policy makers need to be aware that a reduction in low priority spending facilitates fiscal adjustment, because it lowers pressure on nondiscretionary spending and limits the momentum of public spending growth. At the same time, raising additional tax revenues may be needed. Successful debt consolidation based on expenditure reductions have tended to be more effective than tax based consolidations based on empirical evidence. However, when adjustment needs are large, raising taxes can result in more sustainable debt reductions (Baldacci, Gupta, and Mulas-Granados, 2010). Caribbean

countries could achieve the benefits of fiscal consolidation with lower social costs by focusing on expenditure reforms within the context of a medium term fiscal framework. Implementing ambitious expenditure reforms signals strong government commitment to fiscal sustainability. Higher taxes should be handled carefully to minimize economic distortions and promote economic efficiency given that taxes are already high in the region.

The quality of past fiscal consolidation in the Caribbean is questionable, as capital expenditure has been cut heavily, creating infrastructure gaps inimical to growth and hence compromise the achievement of debt sustainability. Country experiences show that reducing public spending with a focus on non-productive and non-priority spending, particularly transfers, subsidies and general goods and services, in a comprehensive reform program is likely to ensure the success of fiscal consolidation efforts in the Caribbean. The empirical literature finds cuts in transfer programs and government wage expenditures as more effective than capital expenditure cuts (Alesina and Perotti, 1997). In several successful fiscal consolidation episodes, spending cuts adopted to reduce deficits were associated with economic expansions rather than recessions.

It is imperative to protect the poor in the adjustment process. To that effect, social safety nets and well-targeted programs need to be enhanced while reducing or eliminating general subsidies. Targeting subsidies and transfers would also help improve the overall efficiency of non-productive spending.

Fiscal consolidation in the Caribbean needs to be credible in order to anchor market expectations about fiscal sustainability (Baldacci, Gupta, and Mulas-Granados, 2010). It is essential to strengthen the fiscal framework by adopting fiscal rules and independent fiscal agencies to guide the budget process and improve fiscal transparency.

Fiscal consolidation is necessary, but will not be sufficient to bring down debt levels, as high primary surpluses would have to be maintained over a relatively long period to have a lasting impact on debt. The very highly indebted Caribbean countries would also need to reduce the net present value of the outstanding debt stock to levels that provide fiscal space and room for countries to resume their growth. Past episodes of large debt reductions in Caribbean countries were largely associated with debt relief (Box 9). Further initiatives to secure additional debt relief would need to take into account the size and structure of public debt. Accordingly, a menu approach is proposed where different options to reduce the existing debt stock or debt service payments can be chosen by individual countries depending on their circumstances. Among the options to be considered should be debt conversion for climate adaptation and debt restructuring.

The region needs a broad and sustained package of reforms to reduce debt ratios to more manageable levels and strengthen economic resilience. Reforms should signal a new commitment to credible and sound macroeconomic policies and should include tax policy reforms, public sector rationalization, measures to improve fiscal discipline and credibility, active debt management, containing contingent liabilities, active privatization programs, and structural reforms to boost growth and improve competitiveness.

Box 8. Reducing Public debt in the Caribbean

Credible fiscal consolidation

- Focus fiscal consolidation on expenditure reforms within the context of a medium term fiscal framework to signal government commitment to fiscal sustainability.
- Begin fiscal consolidation with a large upfront adjustment to restore market confidence and deliver a credible change in debt dynamics.
- Some frontloading of fiscal consolidation can help avoid reform fatigue and presents political economy benefits especially if the adjustment is initiated by a new government.

Fiscal rules and medium term fiscal framework

- Create a stable general fiscal rule to strengthen the current fiscal framework. Define the rule in terms of primary deficit for general government, which could take the form of expenditure ceilings and revenue floors.
- Support the fiscal rule by creating an independent fiscal council to assess macroeconomic projections underlying the budgeting process and assess the compatibility of the fiscal framework with fiscal rules and general government policies.
- Implement multi-year or medium term budgeting that is supported by political institutions and is consistent with the fiscal rule.

Public sector efficiency and rationalization

- Introduce an incentive element into central government grants by setting efficiency targets and rewarding ministries outperforming the target.
- Review the role of government and identify government agencies that could be streamlined, closed or divested.
- Enhance the oversight of public enterprises by strengthening and enforcing existing regulation on governance and reporting requirements.

Tax policy reforms

- Focus tax policy reform needs on broadening the tax base while reducing excessive tax rates and ensuring sufficiency of revenues. Simplify the tax system through a reduction in discretionary waivers and differential rates.
- Assess the effectiveness of new or existing tax expenditures on a systematic and regular basis. Handle higher taxes carefully to minimize economic distortions and promote economic efficiency.

Expenditure reforms

- Reduce public spending with a focus on non-productive and non-priority spending, particularly transfers, subsidies and general goods and services in a comprehensive reform program.
- Safeguard social safety nets by targeting and enhancing social programs, while reducing or eliminating general subsidies.
- Improve the efficiency of non-productive spending by improving the targeting of transfers and subsidies

Debt management

- Lengthen maturities and reduce the average interest cost by substituting high interest and short term debt with lower interest long term debt. Improve debt management capabilities.

Growth enhancing reforms

- Continue with key reforms to increase labor market flexibility, achieve greater regional cooperation, and create an enabling environment for private sector development.

Fiscal rules and credibility of fiscal policy: Mechanisms such as fiscal rules can increase the discipline and credibility of fiscal policy, while helping to reduce debt. They are also useful in securing gains of fiscal consolidation. Empirical evidence shows that fiscal rules, in particular those that have expenditures focus, have affected several dimensions of fiscal consolidation. The size of fiscal consolidation is significantly larger and the consolidation efforts sustained for longer when such rules were present.

The adoption of a spending rule on top of a budget balance rule helped in the achievement and maintenance of a primary balance that was sufficient to stabilize the debt to GDP ratio. Caribbean countries could create a stable general fiscal rule to strengthen current fiscal frameworks by defining the rule in terms of primary deficit for general government, which could take the form of expenditure ceilings and revenue floors. It is also essential to support the fiscal rule by creating an independent fiscal council to assess macroeconomic projections underlying the budgeting process and assess the compatibility of the fiscal framework with fiscal rules and general government policies.

Tax policy reform: There is some scope for raising revenues and retiring debt through tax policy reforms. Tax policy reforms need to focus on broadening the tax base while reducing rates; ensuring sufficiency of revenues; and supporting growth and competitiveness. Simplifying the tax system (including introduction of VAT) by reducing excessive tax rates and broadening the tax base, and reducing discretionary waivers and differential rates could help improve revenue collection, while shifting the burden of taxes away from the productive sectors.

Debt management: Active debt management could help lengthen the maturity structure of debt and reduce debt servicing costs. A number of countries are already involved in active debt management. Where possible, countries should continue to lengthen maturities and reduce the average interest costs by substituting high interest and short term debt with lower interest long term debt. In parallel, many countries must significantly improve institutional debt management capabilities.

Public sector rationalization: There is scope in the region to further reduce spending through the rationalization of the public sector. The Fiscal Affairs Department estimates that expenditure rationalization could reduce public spending on a cumulative basis by 3 to 5 percent of GDP over the medium term in the ECCU region. Savings could be gained from consolidating administrative services and personnel, through mergers, or the closing of agencies. This should be accompanied by implementing a broad-based public expenditure reform to rationalize the public sector wage structure and employment. Some countries are already moving in this direction. Similarly, it would be important to review the functions and rationale of existing public enterprises with the objective of rationalizing them. The oversight of public enterprises could be strengthened by enforcing existing legislation on governance and reporting requirements. An active privatization program, which reduces debt and develops the private sector, should also form part of the strategy.

Containing contingent liabilities: Measures to contain fiscal risks posed by contingent liabilities should remain an integral part of any debt reduction strategy. Containing contingent liabilities will require improving regulation and supervision of the financial system, implementing pension reforms, and clarifying rules for issuing public guarantees.

Growth enhancing structural reforms: Implementing growth enhancing structural reforms will also help improve the debt outlook in the region. Improved growth prospects would require greater emphasis on competitiveness and private sector development. Key areas for reforms include increasing labor market flexibility, achieving greater regional cooperation, creating an enabling environment for private sector development, and reducing the size of the public sector, including the high levels of public employment.

Box 9. Caribbean Economies: Debt Relief Received since 2000

Since 2000, a number of Caribbean countries have received debt relief. These have involved a combination of debt write-offs, debt restructuring, debt swaps, and debt buy-backs. These operations have taken place at different times, and have benefitted different countries.

Three countries have benefitted from debt write offs during the 2000s. In particular, in the early 2000s, Guyana received additional debt relief under the enhanced HIPC Initiative and the MDRI, including from the IMF. In 2004, Jamaica received some debt relief from the UK under the Common Wealth Debt Initiative. In 2007, both Antigua/Barbuda and St.Vincent and the Grenadines (US\$56 million) benefitted from an Italian debt write-off initiative.

Debt restructuring has been the most frequently used form of debt relief in the Caribbean. Five countries restructured their debts in the 2000s. In the early 2000s, Suriname successfully restructured a number of its external loans. In 2004, Dominica restructured its public debt, in the context of an IMF program, reducing its interest rates to 3.5 percent from 8 percent. Grenada also restructured its debts in 2004/05, amidst extensive infrastructure destruction caused by hurricane Ivan. In 2007, Belize restructured its external debts, which provided front loaded interest payment relief, and postponed amortization payments until 2019. In 2010, Antigua/Barbuda also received debt relief from its Paris Club creditors, which agreed (under the baseline accord) to suspend accumulating penalty interest charges and postpone amortization until 2017. Also in 2010, Jamaica launched a comprehensive debt exchange to address its looming debt problem. The objective of the debt exchange was to enable the government to reduce its interest bill and expand the maturity profile of the debt stock.

Debt swaps and debt buy-backs have been used by Belize and Antigua and Barbuda. Belize benefitted from a debt swap arrangement (US\$8 million) with the USA government. In 2005, Antigua/Barbuda engaged in a debt buy-back operation with private creditors, which lowered its external debt by approximately US\$500 million.

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