# The Hidden Cost of Weak Budget Projections – Forecast Deviation and Debt Buildup in Barbados

Country Department Caribbean Group

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**Abstract**

The Barbados economy has been challenged over the last decade by elevated fiscal deficits and a rapid build-up in debt. While the country has made efforts to address this challenge through revenue and expenditure measures, budget targets have often been missed. This study indicates that budget underperformance has contributed to the debt accumulation in Barbados. When comparing actual to budgeted targets set out in the budget, the study indicates that there has been an underestimation of expenditure and lower-than-expected revenue in several years. Particularly, systematic underestimation of transfers without adequate compensation in revenues has increased debt, underscoring the need for institutional and fiscal reforms. At the same time, the under-execution of capital expenditure highlights the need for better allocation to this growth-promoting spending, which has suffered from limited fiscal space.

JEL Codes: E62, O23, H63, H68, H81, F34

Key Words: Jamaica, Debt, Debt Reconstruction,Fiscal Adjustment, Caribbean

## 1. Introduction

Since the 2008 global financial crisis, Barbados' macro stability has been challenged by high fiscal deficits along with a rapid build-up in debt levels. Fiscal deficits have averaged around -7.2 percent of GDP between FY2008/09 and FY2016/17 in comparison to pre-crisis levels of -1.8 percent of GDP recorded between FY2000/01 and FY2007/08. With the growth of public spending outpacing revenue collection, fiscal and primary deficits increased, peaking in FY2013/14 at -10.2 and -3.7 percent of GDP, respectively (Figure 1.1). As a result, the debt-to-GDP ratio more than doubled, from 71 percent of GDP in FY2002/03 to almost 150 percent in FY2016/17 (Figure 1.2).[1] Furthermore, over three-quarters of the liabilities are domestic debt with short-term maturity that is exposed to rollover risk (Figure 1.2).

Starting in 2013, the government introduced fiscal consolidation measures aimed at changing the trajectory of debt and growth in the medium term. The program focused on reducing public spending through public sector retrenchment and lower subsidies and transfers, as well as new measures to raise revenue. The fiscal consolidation program has been extended over time. The most recent was the Barbados Economic Reform and Transformation (BERT) programme, which received support from the International Monetary Fund (IMF) through an Extended Fund Facility approved on October 1, 2018, in the amount of US$290 million.

**Figure 1.1. Fiscal and Primary balance**

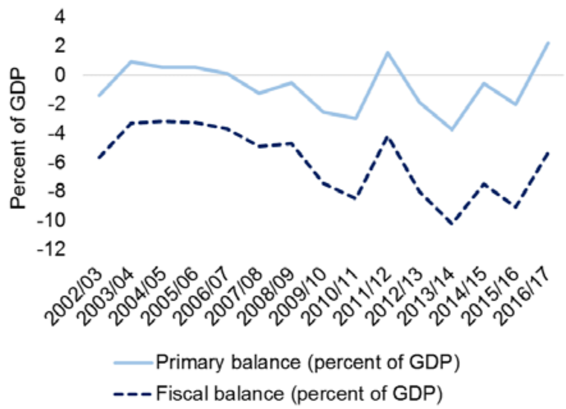
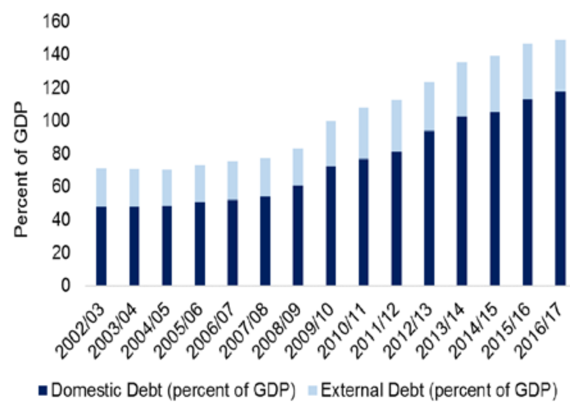



**Figure 1.2. Composition of Public Debt**




Sources: Central Bank of Barbados and the Ministry of Finance.

The observed deficits are the result of a continuous and sizable mismatch between expenditure and revenues, combined with persistent low economic growth. Even though revenue levels are in line with other Latin American and Caribbean countries,[2] they are inadequate to cover expenditures. In fact, over the last decade, public spending has averaged 33 percent of GDP while revenue has averaged 26 percent of GDP. The largest expenditure items are transfers, subsidies, and wages and salaries. Accompanying the increase in debt was an increase in interest expenditures, which have become a significant burden on the budget.

The budget is rigid as wages and salaries and interest payments taken together account for almost half of total revenues. Adding transfers, which are also difficult to change, expenditures equivalent to almost 100 percent of revenues can be classified as rigid. In addition, capital investment has remained low, at around 3 percent of GDP on average, as it has been crowded

[1] All debt numbers are inclusive of arrears and contingent liabilities.

[2] As of 2017, average general government revenue as a share of GDP was 24.6 percent in LAC.

out by current expenditure. At the same time, tax incentives in the form of concessions, waivers, and reduced rates have had an adverse impact on Barbados' revenue base.

The credibility and reliability of a national budget are critical to ensure the efficiency of public spending. Budget credibility requires actual budget expenditure to be consistent with budget estimates and thus requires a high degree of fiscal discipline. Budgets must be clear, transparent, and credible if it they are to command trust and to serve as a basis of accountability. Budget discipline is a key measure of the soundness and reliability of a state.

This policy brief is comparable to work of Schmid (2014) that explores the drivers behind Jamaica's debt build-up by comparing in detail budgeted versus actual expenditures and revenues. The author shows that in the Jamaican case, a substantial part of the debt build-up was due to erroneous budget projections, especially for revenues. Over several years, Jamaican policymakers overestimated revenues, which led to systematically worse than projected fiscal outcomes. The Jamaican experience was a case in which high and rigid expenditures led to continuous failed attempts to increase revenues, which over time resulted in high debt levels.

Using the period FY2002/03 to FY2016/17, this analysis examines the drivers of debt in Barbados, including from inadequate budget assumptions and forecasts. The present debt situation and reform efforts shows the need for this assessment as it highlights areas of weakness. Following this introduction, Section 2 briefly summarizes the evolution of fiscal policy in Barbados. Section 3 analyzes the structure and key drivers of debt in Barbados. Section 4 evaluates the budget planning and execution process, assessing the deviations in components of revenue and expenditure. The final section concludes the research.

## 2. Evolution of Fiscal Policy

Fiscal policy in Barbados can be described as "measures directed towards enhancing the economic development process and providing for the social welfare of the population." As outlined in Gibbs (2016), the government's fiscal policy has been directed toward providing social services, particularly education, health, and housing, as well as redistributing income, enhancing savings and investment, promoting entrepreneurship, developing small and medium-sized enterprises, and promoting exports. Policymakers have supported socioeconomic development through various fiscal channels. Subsidies and transfers to state-owned enterprises (SOEs) that provide social services were an important tool in this respect.

Following robust economic growth in the latter half of the 1990s, the country witnessed fiscal slippage by the end of 2000, led by higher spending on goods and services and transfers as well as a decline in import duties. Likewise, the debt-to-GDP ratio grew, which resulted in efforts to tighten fiscal policy, as well as further divestment of SOEs. The government, however, maintained support to key sectors through incentives and the creation of special funds.

External shocks[3] caused eight consecutive years of growth to end in 2001 as real GDP fell to reach -2.4 percent. The authorities implemented a "national emergency program" in the fourth quarter of 2001, which included primarily of fiscal stimulus measures that shifted spending to promote the tourism, manufacturing, and agricultural sectors and fast-tracking implementation of public investment projects (IMF Article IV, 2002). At the same time, public sector wages increased by almost 3 percent in 2001, which contributed to the contraction of the central government balance.

Robust growth returned by 2003, as real output expanded by 2.2 per cent. However, by 2008, the world financial crisis led to a contraction in economic activity, rising unemployment, and increased

[3] This outturn was primarily due to the September 11, 2001, terrorist attacks which had an adverse impact on the tourism sector.

volatility, with real GDP falling to 0.9 percent by the end of the year and registering a decline of -4.9 percent in 2009. At the same time, the fiscal deficit widened from -4.7 percent of GDP in FY2008/09 to -7.4 percent of GDP in FY2009/10, with debt to GDP increasing to 100 percent of GDP in FY2009/10.

The government set out a medium-term fiscal plan in 2010 aimed at reducing the rising debt levels, protecting foreign reserves, strengthening the social safety net, returning the economy to a sustainable growth path, and improving the fiscal position. The measures raised revenue by 12 percent overall, with value-added tax (VAT) receipts rising by 23 percent (Figure 2.1).[4] The policies reduced the deficit at the end of FY2011/12 to -4.1 percent of GDP.

However, these gains were short-lived, as expenditure increased to around 35 percent of GDP and the fiscal deficit grew to -10.2 percent of GDP by the end of FY2013/14 (Figures 2.2 and 2.3). In 2013, the government implemented a fiscal consolidation programme that reduced the financing needs but has not yet stabilized an increasing debt trend. The fiscal deficit at the end of FY2016/17 stood at -5.3 percent of GDP.

**Figure 2.1. Revenue Composition**

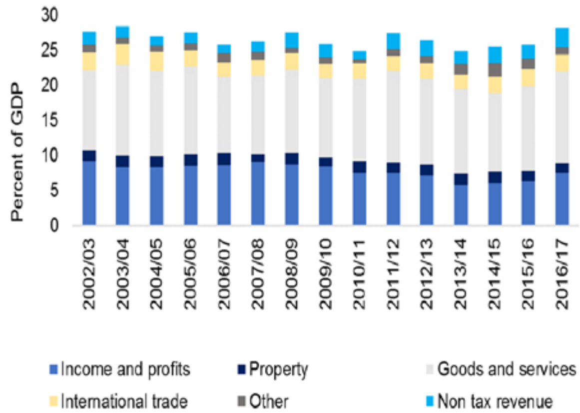
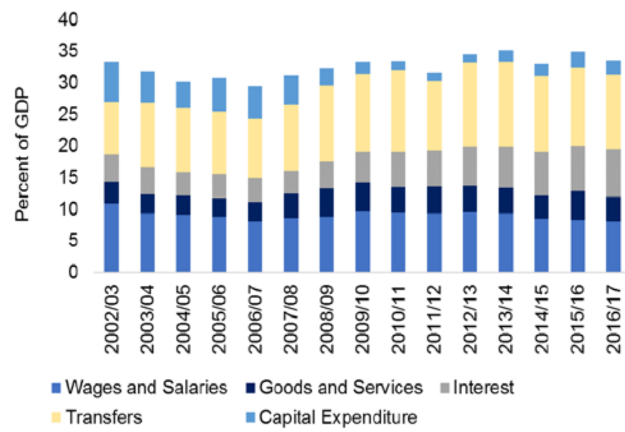
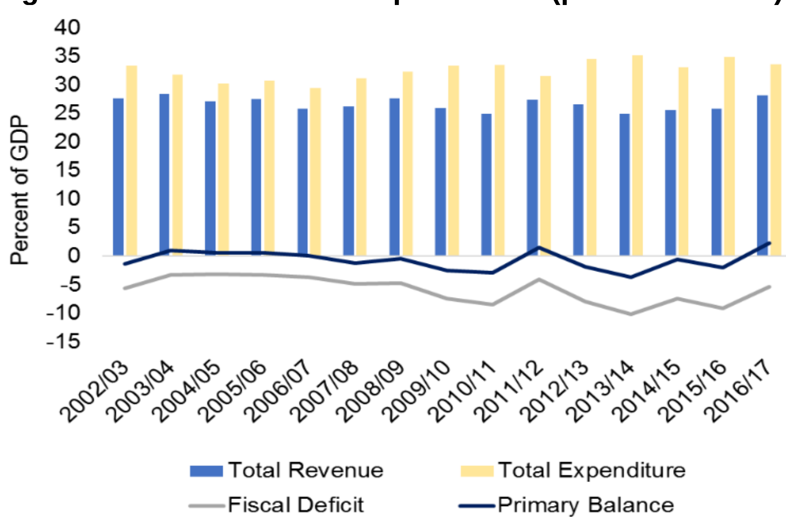



**Figure 2.2. Expenditure Composition**




Source: IMF WEO (Oct 2018), Central Bank of Barbados and the Ministry of Finance.

**Figure 2.3. Revenues and Expenditures (percent of GDP)**




[4] Revenue measures introduced included an increase in the VAT from 15 to 17.5 percent, an increase in the excise tax on gasoline, and an increase in bus fares.

Source: IMF WEO (Oct 2018), Central Bank of Barbados and the Ministry of Finance

## 3. Debt Dynamics

The change in the debt-to-GDP ratio between the two periods is the result of several factors, including interest rates, the primary balance, possible effects of exchange rate movements, real GDP growth, and inflation.[5] Budget speeches have proposed several measures to reduce current expenditure, raise revenue collections, and lower the debt trajectory. However, fiscal consolidation efforts have not yet stabilized the increasing trend in public debt.

Over three-quarters of total debt of Barbados' debt is domestic. As a percent of central government gross debt,[6] National Insurance Scheme holdings account for around 26 percent, followed by the central bank and commercial banks, each with around 15 percent for FY2016/17. External debt is largely held in bond placements (12 percent), while international financial institutions account for about 8 percent of central government debt. In comparison with other countries in the C-6, Barbados' debt-to-GDP ratios were higher, with the exception of Jamaica in 2012 (Figure 3.1). However, Jamaica was able to witness a reduction in debt by 2017 to around 101 percent of GDP through a fiscal adjustment and reform program with the IMF.

**Figure 3.1. Public Debt in the Caribbean**

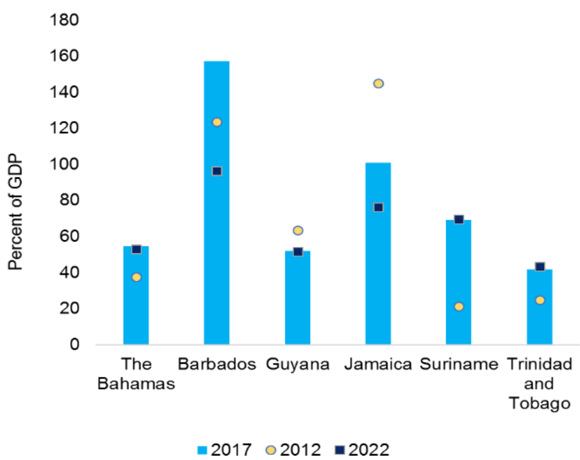
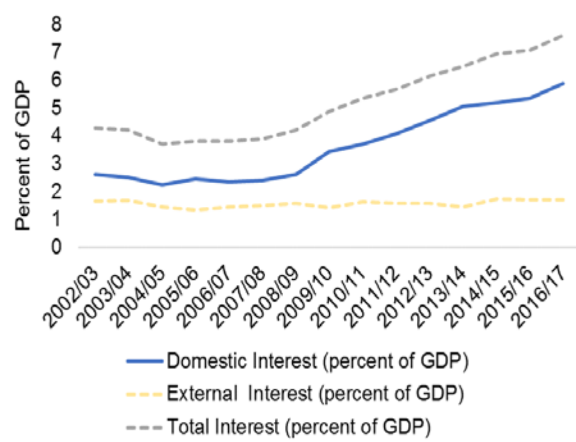



**Figure 3.2. Interest Payments (percent of GDP)**




Sources: Central Bank of Barbados and IMF World Economic Outlook, WEO October 2018.
Notes: Debt figures for Barbados include arrears and contingent liabilities.

A breakdown of Barbados' debt reveals that interest payments are the main contributor to debt (Figure 3.3). Interest payments as a proportion of GDP rose from 4.3 percent in FY2002/03 to almost 8 percent in FY2016/17, primarily driven by higher domestic payments (Figure 3.2). Indeed, domestic interest has more than doubled compared to pre-crisis levels to reach almost 6 percent of GDP at the end of FY2016/17. Other debt-creating flows, such as the assumption of

[5] This is denoted as follows:

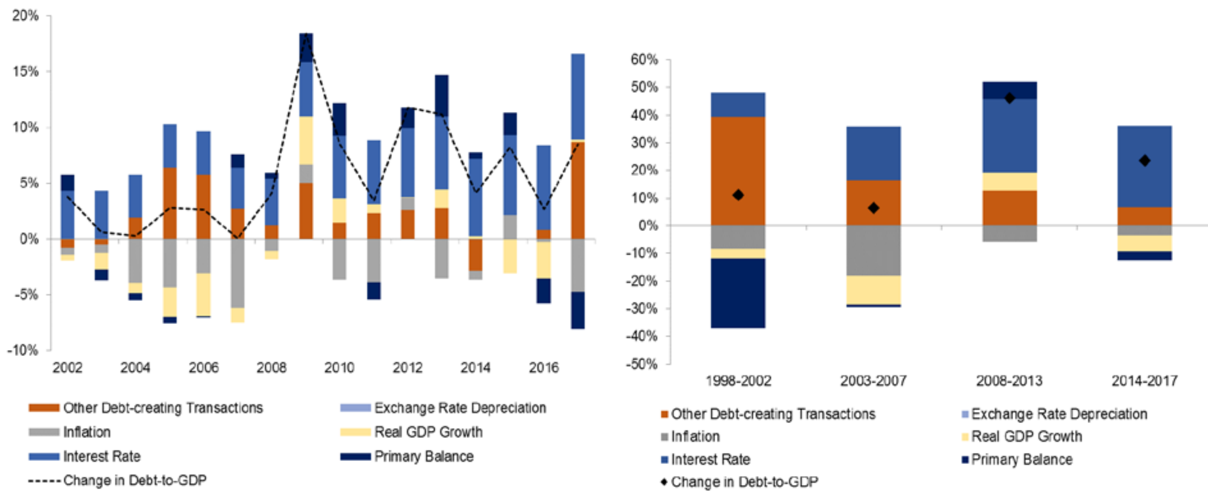
$$d_t = \left[(1-\alpha)\,\frac{(1+\Delta e)}{1+g_t}\right] d_{t-1} - fb_t = \left[\frac{1+r_t^d}{1+g_t} + (1-\alpha)\,\frac{\left(1+r_t^f\right)(1+\Delta e)}{1+g_t}\right] d_{t-1} - ps_t,$$

where $d_t$ is the debt-to-GDP ratio at time $t$, $\alpha$ is the proportion of total public debt denominated in domestic currency, and $(1-\alpha)$ is the proportion of debt denominated in foreign currency. $\Delta e$ is the annual change in the exchange rate and $r^d$, $r^f$, and $g_t$ are the nominal interest rate of the domestic currency debt, nominal interest rate on foreign currency debt, and the GDP growth rate, respectively. Finally, $fb_t$ is the fiscal balance, and $ps_t$ is the primary fiscal surplus.

[6] Central Government Debt= Domestic Debt (inclusive of National Insurance Scheme holdings) +External debt (exclude SDRs). It excludes contingent liabilities and arrears.

contingent liabilities, have also been important in some periods. The fiscal effort is usually strong in Barbados, reflected by a positive primary balance in most years, which has a negative effect on debt. The period 2008-2013 is an exception in this respect, as the primary balance turned negative and contributed to increasing debt. Primary deficits averaged -1.2 percent of GDP following the crisis compared with a surplus of 1.5 percent of GDP during FY2000/01 to FY2007/08. At the same time, inflation has been an important debt-reducing factor. Real GDP growth averaging 0.8 percent from 2002 to 2016 had a more modest impact. Finally, given the fixed exchange rate with the US dollar and the very small share of external debt currencies other than US dollars, the effect from exchange rate movements is negligible. Overall, these effects were not sufficient to compensate, and debt had been increasing in most years since 2002.

**Figure 3.3. Drivers of Debt in Barbados**




Sources: Central Bank of Barbados and IMF World Economic Outlook, WEO October 2018.
Notes: Debt figures include arrears and contingent liabilities.

## 4. Budget Projections Uncertainty and Debt

As outlined above, the debt-to-GDP ratio in Barbados has increased rapidly over the last 10 years. The increase was mostly driven by high and increasing interest payments, low growth, and in some years, insufficient fiscal efforts. However, an additional factor that has so far been ignored is whether inadequate projections used in the budget have also contributed to an increase in the debt-to-GDP ratio.

Figures 4.1 and 4.2 focus on the primary balance and GDP growth, two fundamental variables that form the basis of discussions relating to fiscal sustainability. The primary balance is the main fiscal target of governments, while economic growth becomes the main factor when debt as a percent of GDP and the fiscal effort are already elevated. Overestimating the ability to create a certain primary surplus or growth has important consequences for fiscal sustainability. Constantly missing forecasts in the budget and in economic activity can lead to worse than anticipated fiscal outturns.

In Barbados, incorrect projections did contribute to the debt build-up. Deviations in the primary balance from the budget added to the debt-to-GDP ratio starting in FY2007/08, with the exception of FY2011/12 and FY2016/17 (yellow bars in Figure 4.1). In comparison, the impact with respect to economic growth is smaller as the effects from deviations in growth added to the debt in some years but also lowered it in others (blue bars in Figure 4.1). However, the largest increase came from other factors, meaning that the increase in debt was not because of deviations in budget figures, and as such was part of fiscal policy (grey bars in Figure 4.1). As a result, the current debt-to-GDP ratio would be an estimated 22 percentage points lower at the end of FY2016/17 if the projected primary surplus had occurred over the review period, while deviations in economic growth added 6.5 percent of GDP in debt. Given that debt-to-GDP increased by 85 percent over the period, around one-quarter of that amount was attributable to over optimistic budget projections (Figure 4.2).

**Figure 4.1. Yearly Changes in Debt-to-GDP Ratio 2003/04-2016/17**

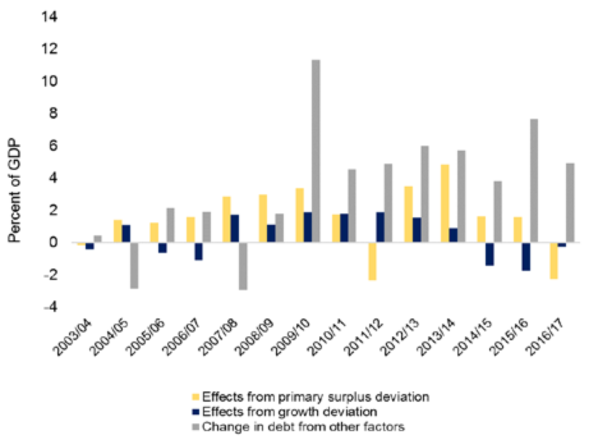
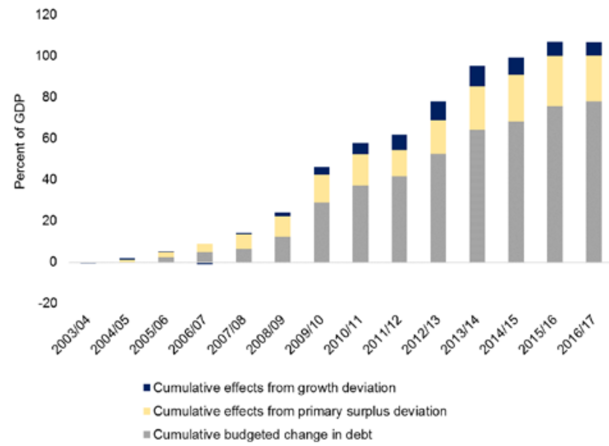



**Figure 4.2. Cumulative Changes in Debt-to-GDP Ratio 2003/04-2016/17**




Source: Ministry of Finance, Central Bank of Barbados and IMF Article IV (various years).

While deviations in the primary balance were not the main reason for the increase in the debt-to-GDP ratio over the last 15 years, the contribution was still important at over 20 percent of GDP. From 2007/08 onward, the primary balance was on average 1.7 percent of GDP lower than budgeted (Figure 4.3). Within this deviation, the main driver was revenues, which over the whole period was on average 1.1 percent of GDP lower than projected. Conversely, expenditures were on average 0.6 percent of GDP higher than projected (Figure 4.6). Only a small share of the revenue shortfall can be attributed to lower-than-expected growth, as is evident in Figure 4.4.

**Figure 4.3 Primary Balance Deviations – Effects from Revenue and Primary Expenditure Deviations**

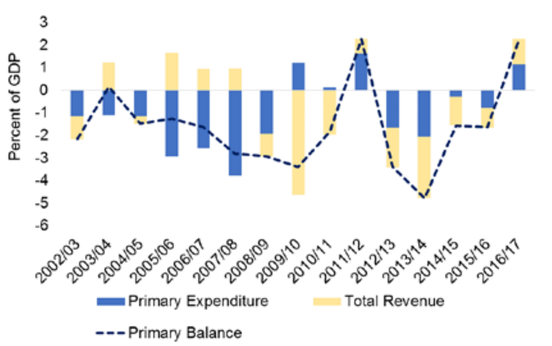
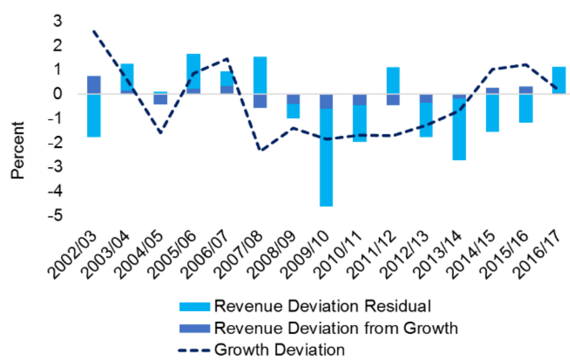



**Figure 4.4 Revenue Deviations – Caused by Growth and Other Factors**




Source: Ministry of Finance, Central Bank of Barbados and IMF World Economic Outlook (October 2018).

On the revenue side, lower-than-expected revenue contributed to budget underperformance. There has been a general overestimation of fiscal revenues after 2007/08. This is especially the case in 2009/10 and 2013/14, when actual revenue as a share of GDP fell short by 4.6 percent and 2.7 percent, respectively (see Figure 4.5). The main contributors to this shortfall were taxes on goods and services and income and profits, which are the main two revenue sources, accounting for almost 75 percent of total revenue collected (or around 20 percent of GDP). Thus, underperformance in these taxes has important effects on the budget.

**Figure 4.5. Revenue Deviations Decomposition**

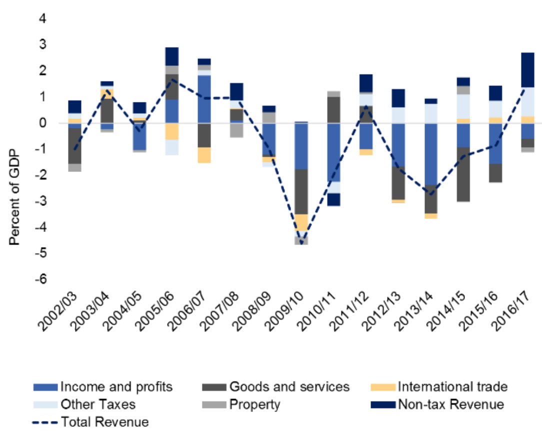
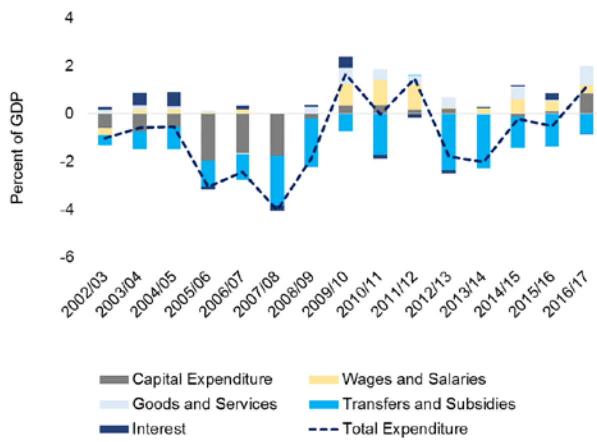



**Figure 4.6. Expenditure Deviations Decomposition**




Sources: Ministry of Finance, Central Bank of Barbados and IMF World Economic Outlook (October 2018).
Notes: A negative deviation means that the effect on the fiscal balances is negative. In the case of expenditures, larger (lower)-than-projected expenditures thus result in a negative (positive) effect.

The decomposition of expenditure variation suggests that spending on transfers and subsidies has been a major outlier. Over the last five years, transfers and subsidies accounted for on average around 13 percent of GDP and over one-third of total expenditure. On the other hand, wages and salaries and capital expenditure have been systematically overestimated, particularly after FY2008/09. The results indicate that current spending other than wages and salaries has crowded out public investment, which averaged around 3 percent of GDP over the review period and was often lower than budgeted.

## Conclusion

The aim of this analysis was to understand the main factors driving the build-up of debt in Barbados, which reached almost 150 percent of GDP by the end of 2016. It was identified that a combination of increasing interest payments and a high but insufficient primary balance were the main drivers of debt increases during the period. As an additional, potential driver of debt, the study focused on the budget execution process, that is on the comparison of budgeted and actual outcomes for economic growth, revenue as well as expenditure.

The shortfall in the fiscal outturn had adverse implications on the overall debt-to-GDP trajectory. Public spending increased after the 2008 global downturn with government efforts to sustain expenditures and stimulate growth at a time when debt levels were already high at 100 percent of GDP in FY2009/10. At the same time, with an underperforming tourism sector and subdued growth came weak revenue collection and the rapid accumulation of public debt. This shortfall increased financing pressures, resulting in the country seeking higher-than-budgeted deficit financing.

The analysis indicates that the overestimated revenues and underestimated expenditures, particularly with respect to transfers and subsidies, played a role in the increase in debt. From the increase in the debt-to-GDP ratio from 71 percent of GDP in FY2002/03 to 149 percent of GDP in FY2016/17, the equivalent of 29 percent of GDP was caused by erroneous forecasts for the primary balance and growth.

Capital spending can also be hindered by the weak budget process. Lower-than-expected revenue or higher-than-estimated current expenditure leads to adjustment within the budget. Given the rigidity of spending in Barbados, with its high portion of interest payments, wages and salaries, and transfers, adjustment often leads to reduced capital expenditure. However, the consistent under-execution of capital expenditure can lead to a deterioration of public goods and infrastructure, with adverse consequences for future growth.

Reforms are needed on both the revenue and expenditure sides to remedy these issues going forward. Tax concessions, waivers, and lower rates narrowed the revenue base during the review period. At the same time, expenditure reforms are particularly challenging given the rigidity of the budget—the wage bill and interest payments account for around half of total spending.

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