Fiscal results for 2013 could outperform expectations in Guyana and Trinidad and Tobago. In contrast, high fiscal deficits have forced the governments of The Bahamas, Barbados, and Jamaica to adopt further expenditure cuts and new tax regimes. In Suriname, authorities remain committed to reduce the fiscal deficit, despite falling gold prices.

SELECTED INDICATORS 2013	Real Growth Rate	Annual Inflation (%, end of period)	General Government Primary Balance (% of GDP)	General Government Overall Balance (% of GDP)	Current Account Balance (% of GDP)	General Government Debt (% of GDP)
1) High-debt countries						
Jamaica	0.4	10.5	7.5	-0.5	-11.4	142.7
Barbados	-0.8	2.6	-4.0	-8.8	-5.2	92.0
2) Medium-debt countries						
The Bahamas	1.9	1.0	-5.4	-7.6	-14.9	56.1
Trinidad & Tobago	1.6	4.0	0.4	-1.4	8.6	33.4
3) Low-debt or FSO countries						
Suriname	4.7	3.0	-1.6	-2.9	-3.7	37.1
Guyana	5.3	4.8	-1.5	-2.7	-19.6	58.2
Caribbean average	**2.2**	**4.3**	**-0.7**	**-4.0**	**-7.7**	**69.9**

Note: For Guyana, most debt is on concessional terms. FSO = Fund for Special Operations.

Source: World Economic Outlook, October 2013.

Summary of Recent Developments by Country

In The Bahamas, results for the first 11 months of 2012/13 fiscal year revealed a widening in the government's deficit by almost 50 percent because of lower tax revenues. The government plans to reverse the downward trend of revenues by implementing a value- added tax in July 2014.

In Barbados, the government presented the Barbados *Growth and Development Strategy* 2013–2020, which focuses not only on fiscal consolidation measures but also on growth initiatives. The government is targeting a fiscal deficit of around 3 percent of GDP by the end of 2014/15 and an acceleration of growth thereafter, to 4 percent by 2020.

In Guyana, authorities reduced the expected real growth in 2013 to 4.8 percent from 5.3 percent after lower-than-expected output in the sugar industry. Workers' remittances decreased during the first half of the year and are projected to be mostly flat this year.

In Jamaica, the economy contracted 0.4 percent in the second quarter of 2013. The authorities expect a resurgence of growth in the third quarter, which would result in a weak 0.8 percent rise during this fiscal year. S&P upgraded Jamaica's long-term rating to B– from CCC+ after recent progress in stabilizing the economy.

In Suriname, despite an increase in capital expenditures and falling gold prices during the first half of the year, the government continues to show its commitment to achieve a fiscal deficit of 3 percent in 2013, compared with 4.1 percent considered in the 2013 Budget. The 2012 Census results were published in September.

In **Trinidad and Tobago,** the Cabinet presented the 2013/14 budget, which projects a fiscal deficit of 3.6 percent of GDP, down from the 4.6 percent of GDP projection in the 2012/13 budget but somewhat above recent outcomes. Among other measures, the budget incorporates more tax incentives for new oil exploration and eliminates the fuel subsidy to Caribbean Airlines Ltd for international flights.

In the **Eastern Caribbean Countries,** the economies display signs of recession in the first quarter of 2013. According to the Eastern Caribbean Central Bank, real growth could reach 1.5 percent in 2013, accelerating to 2.2 percent in 2014.

In This Issue, We Focus on Energy Policies and Challenges in the Caribbean

With the exception of Trinidad and Tobago and to a lesser extent Suriname, Caribbean countries depend on imported fossil fuels. Expensive energy imports contribute importantly to the large current account deficits. The private sector has indicated that the high cost of electricity and inadequate infrastructure is one of the main constraints to sustainable growth.

In this issue, we discuss the **main energy challenge**s in The Bahamas, Barbados, Guyana, Jamaica, and Trinidad and Tobago. Some of the current projects aimed at reducing oil energy dependency include the **reform of the electricity sector** in The Bahamas, the increase of **solar energy infrastructure** in Barbados, and the installation of **energy-efficient equipment** in Jamaica's public sector buildings. In Guyana, energy policies have been directed to increase **investment in low-carbon infrastructure.** As a net energy exporter, Trinidad and Tobago energy challenges are related to adjusting to the leveling-off of oil and gas reserves. High **fuel subsidies** have a large fiscal cost and reduce the incentives to implement renewable energy alternatives. In addition, we analyze the **debt and fiscal sustainability in Suriname under different gold prices scenarios**. The results show that by effectively managing its resources, Suriname can improve its fiscal position and mitigate the effect of gold prices.

Regional Report: In the Caribbean, Energy Matters!

In this issue, we analyze the existing energy structure in the Caribbean countries and discuss possible alternatives to resolve the high cost of energy and import dependency. We consider whether a range of renewable energy technologies are economically and commercially viable and how they could be implemented.

At present, the IDB's Caribbean Country Department and Energy Division are working together with *Compete Caribbean* to develop country-specific and regionwide commercially viable solutions to the region's energy problems.

Recent Developments

Economic activity for the beginning of the third quarter was sluggish across most sectors, resulting in softness in overall activity. Tourism performance from January to June 2013 remained weak with slowed growth of 1.4 percent. A deceleration in inflation by 2.4 percentage points was recorded for July 2012 to July 2013 to 0.83 percent, as transport costs declined. Fiscal developments featured a widened deficit caused by low revenue collections and higher expenditure. Unemployment stands at 14.0 percent for 2012 (latest data available) with participation rates at 74.6 percent. In 2013, the government's financial initiatives, designed to improve its financial sector and ensure consistency with international standards, include forward movements with The Bahamas Credit Bureau Project and the transition of the Credit Union Project. In 2012, according to the Central Bank of The Bahamas, The Bahamas Credit Bureau Project made significant progress toward the creation of the legal, regulatory, and technical framework for a national credit reporting system. Furthermore, the International Finance Corporation assisted with a draft of the Credit Reporting Bill, the selection of a credit bureau operator, and the creation of the consumer education programs. The Central Bank is continuing its work to transfer credit unions into its regulatory and supervisory regime to ensure financial sector stability.

The current account deficit for the first quarter of 2013 (most recent data available) reflected a 54.7 percent contraction, as the merchandise trade deficit revealed a decline in imports, while the surplus on the services account expanded. The surplus on the capital and financial account was reduced because of declines in the level of the domestic banks' short-term foreign liabilities and private loan financing. These transactions offset the direct investment inflows during the first quarter.

Tourism growth showed positive results for the first 4 months of 2013, growing by 4.3 percent over 2012, despite the challenging global economic climate. Reports indicate that travel to the Americas was weaker at 1 percent growth versus the 6 percent growth to Asia and the Pacific region. Growth in travel to emerging economies has been trending higher than travel to advanced economies, according to statistics from the World Tourism Organization. Tourism to The Bahamas has not regained pre-crisis levels of arrivals, particularly in the air segment. Tourism arrivals for the first 6 months of 2013 exhibited protracted growth of 1.4 percent primarily because of a 6.2 percent contraction in air arrivals that offset the advances in sea arrivals by 3.7 percent. Air arrivals, the high-luxury component of overall arrivals, registered for the period were slightly below totals for the corresponding period in 2012, demonstrating the challenges to achieve pre-crisis levels. In contrast, totals for the sea component advanced marginally above 2013. Consequently, total room revenues declined by 6.6 percent because of lower arrivals, lower occupancy rates, and higher average daily room rates. However, the $3.5 billion Bahamar project will be open in December 2014, adding 2,200 hotel rooms to the current room stock of 14,430 rooms in the country, plus an additional 307 private, freehold residences.

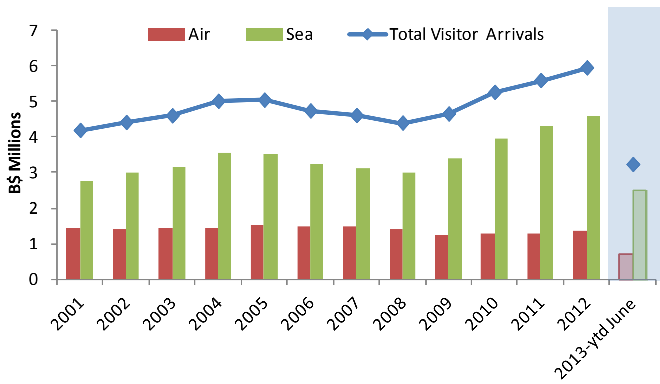
Highlights

Lower revenue collections resulted in a widened deficit for the month of July because collections from the international trade taxes component were lower than expected.

The reduction in the high value-added air arrivals continued to persist, thereby undermining overall tourism performance in the country.

Noteworthy declines in the consumer price index were the result of significant deceleration in the transportation and communications component of the basket of goods and services, resulting in overall inflation of 0.83 percent for the 12 months to July 2013 period.

Figure 1. Tourism Arrivals

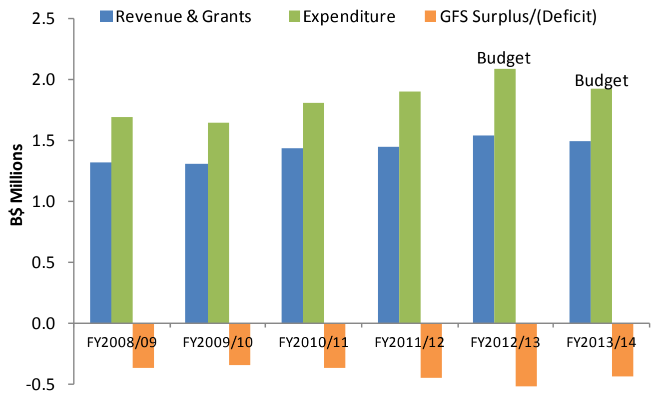


Source: Ministry of Tourism.

Fiscal developments for the 11 months of FY2012/13 revealed a widening in the overall deficit by 49.3 percent to $444.0 million as a result of lower tax revenue, in particular, from taxes for international trade. Total expenditure increased by 4.5 percent to $1,393.6 million reflecting higher transfer payments and increases in personal emoluments. By the end of March, the

direct charge on the government grew by 3.0 percent on a quarterly basis, totaling $4,525.5 million (55.5 percent of GDP), while contingent liabilities totaled $593.3 million (7.3 percent of GDP). Total national debt at the end of June stood at $5,226.8 million (64.1 percent). The government is moving toward the implementation of value-added tax. Improved revenue collections and administration are critical for the proper functioning of the upcoming value-added tax regime. As its July 2014 implementation date approaches, the government has begun its public information campaigns on value-added tax and the implications of this tax on the economy for goods and services.

Figure 2. Central Goverment Operations and Financing



Source: The Central Bank of The Bahamas, Ministry of Finance and Treasury Accounts.

Leaders in the private sector have voiced concerns about the possible harmful effects on business growth and development in The Bahamas. Their main concerns include lack of complete information on the value-added tax and its implications, which would enable businesses to assess the overall effect on costs; businesses thus are unaware of how they should prepare for its implementation. By the end of September, the government is expected to release to the general public all relevant details of the legislative framework, the regulatory structure, and the quantitative analysis on the overall effect on revenue. **As outlined by the government's fiscal medium-term framework, the value-added tax implementation is expected to result in a fiscal surplus in FY2016/17, with a corresponding increase in revenue by 4 percentage points between FY2013/14 to FY2016/17.** For recurrent expenditure, the goal is to reduce recurrent outlays by 0.5 percent of GDP each year to reach to 19.1 percent by FY 2016/17; for capital expenditure, the Government will target an execution rate of 3 percent of GDP.

The consumer price inflation for the 12 months to July decreased to 0.83 percent; this decrease was supported by a significant lowering in average transportation costs—the heaviest weighted component of the basket—to 0.35 percent from 6.2 percent in the corresponding period last year. Consistent with the average lowering in the OPEC basket price over the review period, prices at the pump for gasoline and diesel registered a deceleration in costs by 1.5 percent and 3.8 percent, month on month, to $5.31 and $4.86, respectively. Similarly, official reports indicated that the fuel surcharge levied by the electricity company fell by 3.8 percent to 27.32¢ per kilowatt hour (kWh) monthly, and by 4.2 percent annually.

The Bahamas and the IDB

The IDB has been working with the Government of The Bahamas to assist with value-added tax implementation. Using an econometric model, the IDB has provided specific input on the effects of the changes in revenue of the proposed value-added tax rates and the base on which the value-added tax will be charged. An economic impact study that assesses the effect on prices, economic growth, poverty, and income distribution is currently underway. Consultations on the creation of the Central Revenue Agency, which will administer the value-added tax and select the IT system, are currently underway.

Following the elections of May 2012, the newly elected government, the PLP, began working on a new Country Strategy with the IDB for the upcoming 5 year period. The proposed new CS will be presented to the Board of Directors of the IDB for approval in late October 2013. The priority areas outlined in the CS, which covers the 2013-2017 period, include: (1) Public Finances and Management; (2) Citizen Security and Justice; (3) Energy; (4) Private Sector Development; and (5) Coastal Risk Management and Climate Change Adaptation.

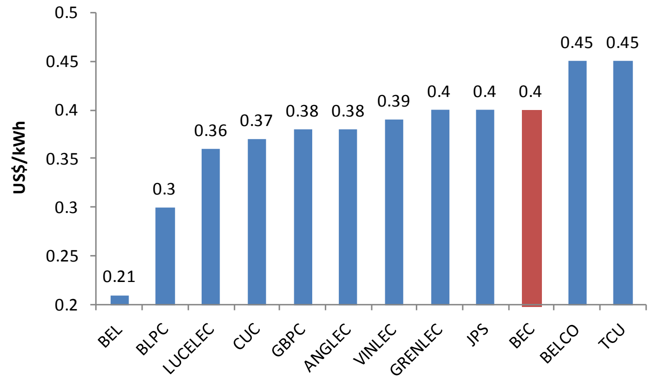
High-Frequency Macroeconomic Indicators				
	Last data	Period	Prior data	Period
Annual GDP growth (%)	1.8	2012	2.0	2011
Tourism arrivals (annual % change)	6.3	Dec-13	6.3	Dec-12
Exports (12-month growth)	6.6	Q1 2013	27.3	Q3 2011
Imports (12-month growth)	7.3	Q1 2013	13.9	Q3 2011
Private sector credit growth (%)	-1.5	May-13	-1.4	Feb-13
Inflation	2.0	Dec-12	3.3	Nov-12
Exchange rate (end of period)	1.00	May-13	1.00	Apr-13
Unemployment rate (%)	14	May-13	14.7	May-12

The Problem: High Costs

The Bahamas faces key existing challenges relative to the high electricity costs. Challenges include high cost to generate the electricity it produces; high price of fuel purchased by the public corporation, the Bahamas Electricity Corporation (BEC); poor operating efficiency; inefficient energy consumption by households, businesses, and governments; and limited development of renewable energy plans. Consumers bear these high costs by paying high tariffs. In this section, we will discuss the current energy environment as well as the country's progress towards a more modern and efficient energy sector.

At present, the BEC, which was established in 1956, services 100,000 customers across a chain of 700 islands and cays (23 inhabited), with 29 generating plants in 25 locations. The BEC has total installed capacity of 438MW in New Providence (Nassau) and the Family Islands, generating electricity from 28 diesel engine stations and 1 gas turbine power station. Approximately 74,000 customers are in Nassau, the capital city. Electricity is generated using primarily fossil fuels. Fuel is also shipped to the outer, Family Islands for residential and commercial uses.

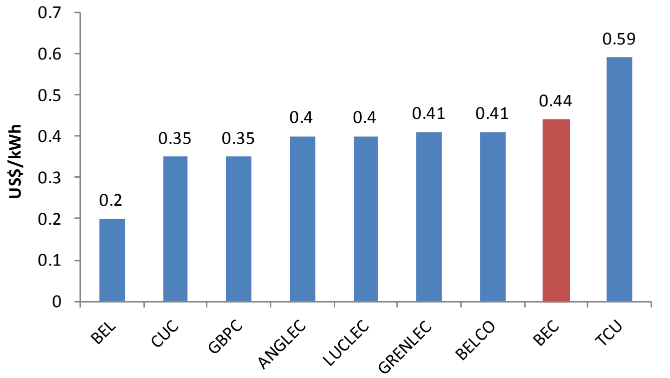
Figure 3. Comparison with Other Caribbean Utilities of BEC's Average Tariffs for Residential Customers (2012)



Source: Source: Action Plan for Transforming the Electricity Sector in The Bahamas (2012). *Note:* ANGLEC (Anguilla Electricity Company Ltd)., BEL (Belize Electricity Limited), BELCO (Bermuda Electric Light Company Ltd.), BLPC (Barbados Light & Power Company Ltd.), CUC (Caribbean Utilities Company Ltd.), GBPC (Grand Bahama Power Company), GRENLEC (Grenada Electricity Services Ltd).

The BEC's operation costs are high. An official report by Castalia Strategic Advisors on the Electricity Sector in The Bahamas indicates that the average tariff increased by 44 percent (from B$0.28/kwh to B$0.40/kWh) for residential customers and by 76 percent (from B$0.25 kWh to B$0.44/kWh) for nonresidential customers between 2009 and 2012 (see Figures 3 and 4). Even with high average tariffs, the BEC presents financial losses. As a result, the BEC has received large amounts of money from the government through subsidies to cover losses. Profit margins for the company have declined since 2000 at 13.6 percent to 5.5 percent in 2004 and 5.5 percent to 0 percent in 2010. Moreover, government transfers to the BEC constitute an important contingent liability, registering B$224.9 million in transfers in 2012, B$198.3 million in 2011, and B$206.7 million in 2010. This liability accounts for roughly 36.8% of total contingent liabilities over the 3-year period. The corporation is the highest explicit contingent liability, followed by the Bahamas Mortgage Corporation. Meanwhile, among other utilities in the region, the BEC has one of the highest tariffs, which have increased much faster than have most others in the region.

Figure 4. Comparison with Other Caribbean Utilities of BEC's Average Tariffs for Hotels (2012)



Source: Action Plan for Transforming the Electricity Sector in The Bahamas (2012).

Proposed Reforms

On August 13, 2013, the prime minister of The Bahamas announced the government's plans to reform the country's energy sector. The objectives include restructuring the BEC and creating efficiencies to allow for significant reductions in energy costs, increased energy security, environmental responsibility, reliability, and increased competitiveness as a country. The prime minister acknowledged the Charter for Governance, which stated that one critical initiative to change the country's economic course is to find ways to reduce electricity costs.

Reform of the electricity sector will begin with the creation of two new BEC entities, which will assume responsibility for the relevant assets, liabilities, and operations of the corporation. The first company, the **Transmission and Distribution Company**

(NewCo), will be responsible "for the operation, maintenance, repair and expansion of NewCo's electricity transmission and distribution systems and for billing, collection, customer services and other relevant services across The Bahamas." This company will be wholly owned by BEC. **Generation Services Company**, the second company, will reportedly be responsible for "the operation, maintenance, repair, financing of BEC's current electricity generation facilities and other assets located across The Bahamas, as well as the development of new power generation plants." Reports indicate that Generation Services Company will enter a Power Purchase Agreement with NewCo.

The creation of these companies is expected to yield more efficient and sustainable operations and administration framework that will reach the country's stated goals and key objectives as outlined by the prime minister. Key goals for sector reform include the development of (a) an affordable sector that has the capacity to meet the long-term growth and demand for energy; (b) a section that complements other sectors of the economy, fostering economic development and employment; (c) an environmentally sustainable sector with increased use of renewable energy sources; (d) a sector supported by increased awareness among Bahamians of the importance of energy conservation and security; (e) a sector that reflects more efficient and effective use and management of energy; (f) a sector that focuses on modernization and expansion of the energy infrastructure to ensure safety, affordability, reliability, and competitive advantage; (g) a sector supported by a modern and dynamic regulatory framework; (h) a sector that provides long-term energy security to producers and consumers; (i) an energy sector that possesses the flexibility and creativity to evolve; (j) an energy sector that is 30 percent powered by renewable energy by 2030; (k) and an energy sector with an appropriate institutional framework and high levels of technical capacity to support and facilitate the effective implementation of the policy.

On the same date that the government announced the reform, it issued a Request for Proposals to companies, individuals, or consortia to partner with the government in the reform process. To facilitate this process, a National Energy Task Force will advise the government on solutions to address the key objectives of the energy reform and seek methods of reducing the high cost of electricity in The Bahamas.

The government's deadline for receipt of bids in response to the Request for Proposals was September 13, 2013. Thereafter, once the bids have been evaluated, the relevant contracts are expected to be negotiated and signed with the successful companies by the first quarter of 2014. Furthermore, the legislative framework and regulatory structure is expected to be completed by March 2014, and the overall reform is expected to be completed by the end of 2014.

The IDB Sees This as a Regional Issue

To underscore the importance of energy to the future growth and development of individual countries and the region as a whole, IDB Vice President Roberto Vellutini offered welcoming remarks at the IMF's 2013 High-Level Caribbean Growth Forum held in September on promoting the Caribbean's economic growth. In his remarks, he deemed energy as being a main factor in addressing the challenges that national governments face and in managing the region's debt and fiscal sustainability conditions. He stated that "the Caribbean's low economic growth is—in large part—the product of the high cost and volatility of its energy sources. The IDB is committed to helping the Caribbean to implement a less costly, environmentally friendly, and more sustainable energy matrix, including natural gas, renewable, and energy-efficient technologies. Going forward, we have to think big in order to achieve higher economic growth rates for the Caribbean: plan regionally, but act nationally."

References

Bahamas Electricity Corporation, History of Electricity in The Bahamas, www.bahamaselectricity.com

Castalia Strategic Advisors, Action Plan for Transforming the Electricity Sector in The Bahamas, Inter-American Development Bank, January 2012.

Central Bank of The Bahamas. Monthly and Quarterly Reports. The Central Bank of The Bahamas, Nassau, Bahamas.

Statement of the Rt. Hon. Perry Christie, M.P., Prime Minister on Reforming the Energy Sector of The Bahamas. Office of The Prime Minister, Nassau, Bahamas, August 2013.

The Bahamas: Selected Indicators

	2009	2010	2011	2012	2013 (F)
(Annual percentage changes, unless otherwise indicated)					
Real Sector					
Real GDP	-5.4	1.0	2.0	1.8	2.7
Nominal GDP	-5	-1	5	4	3.5
Inflation (end of period) - Central Bank	1.3	1.4	3.2	1.9	2.0
Inflation (end of period) - IFS	1.5	1.5	1.0	n.a.	n.a.
External Sector					
Exports of goods and services	-14.7	-2.6	19.0	9.6	7.2
Imports of goods and services	-18.9	1.1	12.9	7.3	4.6
Current account (percentage of GDP)	-10.5	-10.5	-14.0	-16.0	-13.7
FDI (percentage of GDP)	9.4	12.0	14.9	7.3	8.6
(In percentage of GDP, unless otherwise indicated, on a fiscal year basis)					
Central Government	2009/10	2010/11	2011/12	2012/13	2013/14
Revenue and grants	16.8	18.2	16.2	18.5	18.7
of which: tax revenue	14.3	16.4	16.2	16.7	16.7
Current expenditure	18.0	19.3	19.6	20.1	20
Capital expenditure and net lending	3.2	3.5	4.4	1.5	4.3
Primary balance	-0.9	-1.1	-2.1	-3.6	-2.9
Overall balance	-4.4	-4.7	-5.9	-5.9	-5.9
Debt Indicators					
Central government debt	43.9	43.9	45.7	49.3	53.6
Central government debt over revenues	261.1	247.9	263.0	289.7	290.1
External public debt (end of period)	9.1	11.8	12.9	12.8	14.1
External debt service as percentage of exports of goods and services		11.2	8.1	7.5	5.9

Note: FDI= foreign direct investment; IFS= International Financial Statistics; (F) Forecasts numbers for 2013.

Source: Department of Statistics, Central Bank of The Bahamas and International Monetary Fund World Economic Outlook April 2013.

Recent Developments

Barbados' economy is projected to grow in the medium term. The Government of Barbados (GoBA) revealed its goal to create balance in the macro-economy by focusing not only on fiscal consolidation but also on growth initiatives. The strategies to achieve this objective were presented in the Barbados Growth and Development Strategy 2013–20, which replaces the Medium-Term Fiscal Strategy of 2010. With average economic growth of –0.6 percent between 2008 and 2012, real GDP is expected to grow from –0.8 percent in 2013 to 4 percent by 2020 and is likely to be driven by the foreign exchange–earning sectors. As outlined in the Financial Statement and Budgetary Proposals of 2013, some of the main growth measures are the reconstruction and refurbishing of previously closed hotels, the restructuring of the sugar cane industry, and the construction of roads through public–private partnerships (see Table 1). Although these projects can generate much-needed growth for the stagnated economy, much care should be taken regarding projects that are financed or guaranteed by the government because a further burden would be placed on an already-limited fiscal space.

Table 1. Budgetary Growth Measures in the Medium-Term

Budgetary Measures - Growth	BDS$M
Tourism	**950**
Increased marketing efforts – additional funding to the BTA	100
Hotel refurbishment fund provided by the NIS/Central Bank	50
Tourism related projects: Almond Beach and Silver Sands hotels to result in an additional 1,000 rooms	800
Improvements in price competitiveness: lowering of VAT from 8.75% to 7.5% for hotel and restaurants and direct services	-
Development Projects (Public)	**1504**
Cruise pier and land reclamation project (Phase 1 & 2)	660
Pierhead marina	202
Church village (Phase 2) and constitution river upgrade	17
Cane industry restructuring project	500
Mariah Holder Trust – nursery schools	-
Special roads and bridges package	125

Source: Barbados Financial Statement and Budgetary Proposals, 2013.

The private sector is earmarked to propel economic growth. The GoBA indicated its commitment to create a business environment through the use of business-enabling policies. Specifically, the government aims to achieve balanced macro-economic policies, good infrastructure, and a sound financial sector; good governance with the appropriate and investment friendly regulations; and open and competitive markets with limited protectionism, among others. The private sector is also encouraged to make use of investment opportunities that boost wealth and employment, as well as focus on increasing competitiveness.

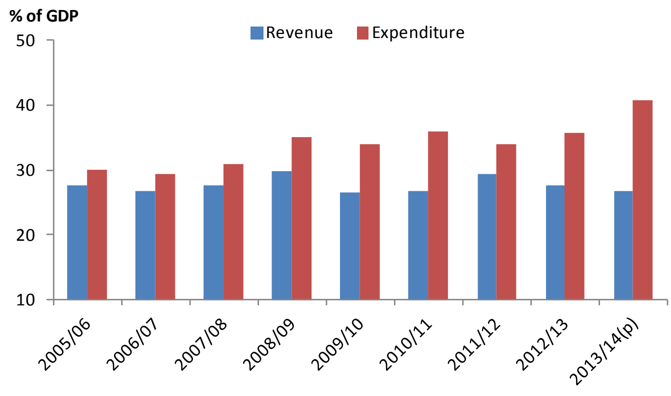
Highlights

The Government of Barbados targets a fiscal deficit of about 3 percent of GDP by fiscal year 2014/15 and will implement new growth strategies in an attempt to create balance in the macro-economy and a real growth rate of 4 percent by 2020.

Debt remains a challenge for the government in the medium term.

Barbados is moving toward a green economy through various renewable energy and initiatives on energy efficiency.

Figure 1. Declining Revenues



Note: (p) refers to projected.
Source: Barbados Growth and Development Strategy, 2013–20.

The government is committed to fiscal consolidation and is prepared to make major adjustments to expenditure. Earlier this year, the overall budget deficit for FY 2013/14 was estimated at 8 percent of GDP and was projected to worsen if immediate actions were not taken. Consequently, the government disclosed a fiscal deficit reduction of US$200 million through a 19-month adjustment program, ending in March 2015. Given the weak intake of revenues (see Figure 1), expenditure- reducing measures are targeted and anticipated to drive the decline in the fiscal imbalance. Reductions are projected mainly in wages and salaries (US$25 million) through a smaller public sector; and transfers and subsidies (US$100 million), via caps placed on the amount of monies given to government-owned companies, statutory boards, and statutory corporations, such as the Queen Elizabeth Hospital, the University of the West Indies, and the Transport Board. Other

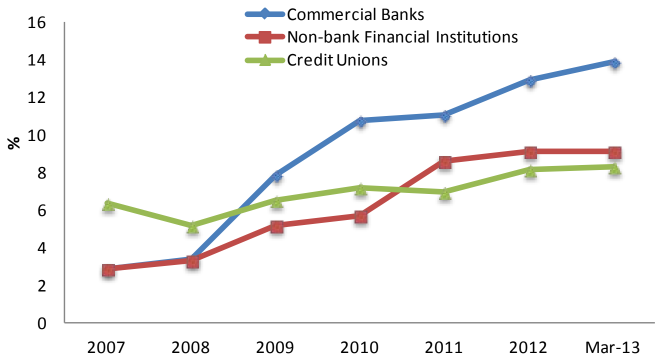
measures include increasing efficiency in the procurement of goods and services, facilitating greater use of public–private sector partnerships, and merging government departments and entities that perform similar functions. These measures are estimated to contribute to the fiscal deficit falling below 3 percent of GDP by the end of FY2014/15. Although this target may be achievable, much speculation remains regarding the specifics of attaining the reduction in expenditure.

Barbados' debt remains high and vulnerable to shocks. Government highlighted its intention to reduce the central government debt-to-GDP ratio, which is currently in excess of 90 percent, to below 80 percent by 2024/25. This target is expected to be achieved through various strategies, including reducing the risk associated with floating interest rate external debt; extending and smoothing the maturity profile to better manage refinancing risks; and implementing a debt-retiring schedule. Achieving this target could pose a severe challenge for the country given its current sovereign credit rating of below investment grade and its high potential to accumulate additional debt to support the balance of payments position. Some setbacks have already been witnessed as the government was forced to withdraw a US$250 million bond issue in the international capital market. The inability to raise this money increases financing and rollover risks for the country. Barbados also faces rising contingent liabilities through the guarantee of numerous projects (such as the construction of the Four Seasons, the restructuring of the cane industry and the purchasing of the Almond Beach Village Resort). Caution needs to be taken because high debt levels increase the vulnerability of a country as the public and private sectors are hindered by unexpected shocks.

Moreover, a debt sustainability analysis, which used World Economic Outlook data and Barbados Growth and Development Strategy forecasts, concluded that Barbados will require fiscal adjustments on the primary surplus of more than 5 percent of GDP to achieve sustainable debt levels. This finding suggests that Barbados needs a higher level of fiscal discipline than is customary in that country. Therefore, the likely outcome for debt depends on the strength of Barbados' fiscal-consolidation efforts, the cost of debt, and GDP growth.

The banking sector remains resilient and well-capitalized despite the continuous increase in non-performing loans. According to the Central Bank of Barbados' Financial Stability Update (August 2013), non-performing loans for commercial banks increased from 12.9 percent of total loans in 2012 to 13.9 percent of total loans in the first quarter of 2013, but they remained flat for credit unions and non-bank financial institutions (see Figure 2). However, all banking institutions had sufficient capital to buffer against potential loss from a non-performing loan ratio of about 20 percent of total loans.

Figure 2. Non-Performing Loans



Source: Central Bank of Barbados's Financial Stability Update (August 2013).

Issues the Bank Should Watch Out For...

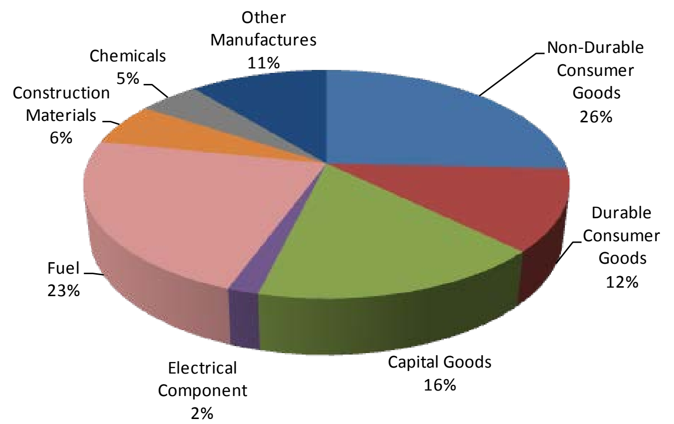
The Barbados Water Authority seeks close to US$0.5 billion in financing to replace aging infrastructure. According to a *Barbados Today* (2013b) report, the GoBA intends to discuss various wastewater issues at the 22nd Annual Caribbean Water and Wastewater Association Conference to be held at the Hilton Barbados October 6–11. These matters include the changing of many pipelines, the inclusion of the West Coast Sewage Project, and financing possibilities. There is also interest for the IDB to finance the purchase of a number of power generators for the water company. This would allow for greater efficiency as Barbados Water Authority's water pumps continue functioning during times of power outages. The IDB could also provide much needed support to the government in the areas identified in the Growth and Development Strategy for the upcoming Country Strategy period.

The IMF team visited Barbados twice to conduct its financial sector assessment programme. These findings should help inform the Article IV mission that is scheduled for the end of this year. The last Article IV mission was undertaken in 2011.

High-Frequency Macroeconomic Indicators	Last data	Period	Prior data	Period
Annual GDP growth (%)	-0.6	Jun-13	-0.4	Mar-13
Tourism arrivals (annual % change)	-6.8	Jun-13	-8.9	Feb-13
Exports (12-month growth)	-10.1	Jun-13	-9.4	Mar-13
Imports (12-month growth)	-4.3	Jun-13	-4.0	Mar-13
Private sector credit growth (%)	-4.0	Jun-13	-1.1	Dec-12
Inflation	2.7	Jun-13	3.3	Mar-13
Exchange rate (end of period)	2.0	Aug-13	2.0	Jun-13
Unemployment rate (%)	11.5	Mar-13	11.6	Dec-12

Barbados is a small economy that depends highly on imported goods. Total imports are about four times the amount for exports and represent roughly 40 percent of gross domestic product over the past 5 years. The single main imported product is fuel, rising from 9 percent of total imports in the early 2000s to 23 percent of total imports in 2012 (see Figure 3). According to Moore, Walkes, and Jones (2012), Barbados imports about 4 million barrels of refined oil each year, which denotes about 90 percent of the country's energy needs. The remaining 10 percent of energy requirements are derived through renewable energy and local oil production by the Barbados National Oil Company.

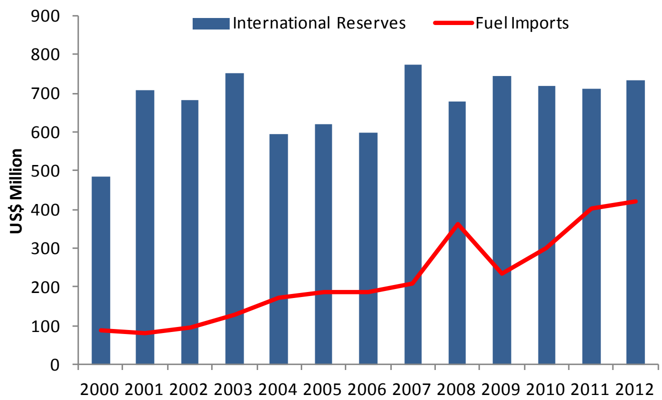
Figure 3. Composition of Total Import



Source: Staff's calculation using data from the Central Bank of Barbados.

The Benchmarking Study of Caribbean Utilities report showed that Barbados has one of the highest usages of electricity per customer when compared with other Caribbean countries (Jamaica, St. Lucia, and Antigua & Barbuda). Barbados' overreliance on imported fossil fuels has become a major drain on the island's foreign reserves. Over the past 5 years, the country spent an annual average of US$350 million on the energy import bill, which comprises about 50 percent of international reserves (see Figure 4). The imported fuel is used mainly for electricity generation (50 percent) and transportation (33 percent) (Moore et al. 2012). Barbados Light and Power Company Limited is the sole provider of electricity in the island and sells the majority of its electricity for commercial activity (66 percent) (Barbados Light and Power Company Limited 2012).

Figure 4. Value of Fuel Imports and International Reserves



Source: Central Bank of Barbados.

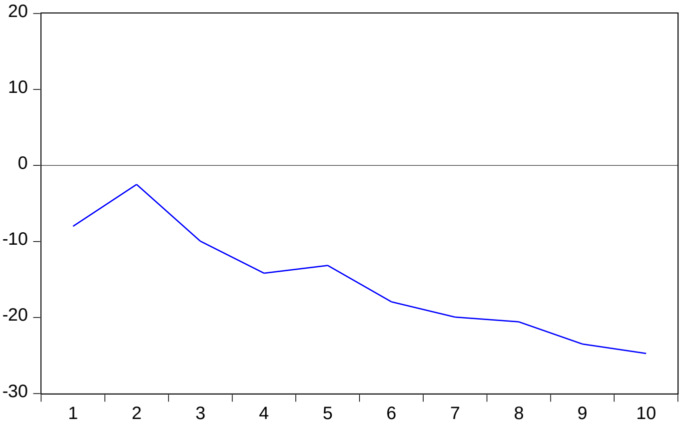
Given that energy costs are about four times those prevailing in North America and that the average length of time to obtain an electrical connection upon application is longer than in other Latin American and Caribbean countries, many firms (43 percent) have listed electricity as a major constraint to doing business in Barbados (Enterprise Surveys). Research conducted by both the World Bank and the IDB found that a lack of access to affordable and reliable energy is one of the biggest impediments to growth in the region. Moore (2011) found that demand for oil in Barbados is price-inelastic in the long run and that a 1 percent change in consumption would cause oil demand to adjust by 1.43 percent. His study also revealed that consumption of oil is responsive to past consumption, prices, income, electricity consumption, and number of appliances imported in the short run. Therefore, Barbados' economy is at risk of a further drain in its foreign exchange position because aggregate demand is more than likely to increase when the economy rebounds.

The current account deficit is highly affected by oil prices. A vector autoregression on the current account and international oil prices was conducted for 1982 to 2012. The variance decomposition showed that 18 percent of the change in the current account deficit is explained by international oil prices in just the first period, while the impulse response function indicated a worsening of the current account balance to a one standard deviation shock of an oil price change (see Table 2 and Figure 5). Hence, prudent fiscal management and timely renewable energy policies are necessary to reduce the effect of high dependence on fossil fuel.

Table 2. Variance Decomposition Results

Period	Standard Error	Current Account Balance	International Oil Prices
1	18.8	18.2	81.8
2	20.6	16.6	83.4
3	23.5	30.7	69.3
4	28.8	44.7	55.3
5	31.9	53.5	46.5
6	36.7	64.3	35.7
7	41.9	72.0	28.0
8	46.7	77.4	22.6
9	52.3	82.0	18.0
10	57.8	85.3	14.7

Figure 5. Impulse Response Results



Source: Author's calculations.

Recognizing the need for a more sustainable energy framework, the GoBA has indicated its commitment to ensure that the development and use of renewable energy technology is fast-tracked. The use of these technologies should result in significant gains for the country, such as a reduction of foreign exchange leaving the island; the creation of a new industry and new jobs; and the preservation of the environment, which is important for an economy dependent on the tourism sector. Given these gains, the government has fashioned a vision for a Green Economy, with a goal "to achieve the largest reduction in fossil fuel consumption of any Latin American and Caribbean country within the next 10 to 15 years."[1] This target can be achieved given the amount of work that has been and is expected to be done in the area as well as GoBA's commitment to transform the economy to a more environmentally friendly one.

Moreover, the National Strategic Plan of Barbados for 2006–25 was designed to help eliminate the reliance on fossil fuel, with a specific focus on increasing the number of household solar water heaters by 50 percent by the end of 2025. To date, solar water heaters are used extensively in Barbados, with installations in nearly half of the island's dwelling units (Barbados Light and Power Company Limited Annual Report 2012). More recently, the Barbados Light and Power Company Limited, with the approval of the Fair Trading Commission and technical support from the IDB, introduced the Renewable Energy Rider initiative in mid–2010. This initiative allows customers to connect to the grid and sell any excess electricity generated from renewable sources to Barbados Light and Power Company Limited. Thus far, more than 200 customers have benefitted from the initiative (*Barbados Today* 2013).

The renewable energy industry is also supported through a series of tax incentives introduced by the GoBA. Some of these incentives are a zero value-added tax rate on all renewable energy and energy-efficient systems and products produced in Barbados; an income tax holiday of 10 years for developers, manufacturers, and installers of renewable energy products; and a 150 percent deductible on expenditures for staff training, marketing of products for the sale of electricity, and product development or research that is related directly to the generation and sale of electricity. To facilitate renewable energy generation on the island, the GoBA is also expected to pass renewable energy legislation in Parliament in October of this year. This new legislation will help reposition Barbados' economy and establish a complete renewable energy sector in the country.

Role of the IDB

IDB has provided support to the GoBA in the development of a sustainable energy framework since 2009, through a package of policy-based lending, technical assistance programs, and investment loans. It is expected that the sustainable energy framework would result in Barbados reducing its oil imports by about 30 percent and achieving a financial saving of US$614 million, over a 20-year period (IDB).[2] The main aspects of this programme are to encourage energy efficiency and use of renewable sources of energy. Thus far, the GoBA has approved the Renewable Energy and Energy-Efficiency Policies, produced draft renewable energy legislation, and initiated a Plan for the Energy Sector Capacity and Institutional Strengthening, among others.

In particular, IDB is financing the Sustainable Energy Investment Program through a US$10 million investment loan.

[1] White Paper on the Development of Tourism in Barbados (p. 102).

[2] IDB Report: Second Generation of Reforms in Support for Sustainable Energy Framework for Barbados (BA-L1024), Proposal for Operation Development.

The Energy Smart Fund, as part of that loan, helps small and medium enterprises (including the tourism sector and the residential sector) finance the initial costs of energy efficiency and renewable energy projects.

The IDB is committed to continuing its support to Barbados by improving energy efficiency, promoting diversification of energy sources, and expanding the use of renewable energy through greater technical and financial backing. Assistance has also been given for capacity building, training and skill development in renewable energy, and energy efficiency in tertiary institutions and schools. These initiatives would help advance Barbados on the path to a green economy.

Conclusion

Barbados can achieve sustainable economic growth and development if led by the sectors that provide a surplus of foreign reserves. The energy sector can accomplish this task, given that investment in renewable energy sources stimulate economic growth, save foreign exchange, and promote a greener economy. It is therefore essential for Barbados to use strategies to build a strong, vibrant, and productive alternative energy sector.

References

Barbados Light and Power Company Limited. *Annual Report 2012.* http://www.blpc.com.bb/photos/LPH2013AnnualRep.pdf

Barbados Today. (2013a). *Mass Energy* (p. 3). September 16. http://www.barbadostoday.bb

Barbados Today. (2013b). *Water Bill*. September 18. http://www.barbadostoday.bb

Benchmarking Study of Caribbean Utilities. 2006. CARILEC. http://www.carilec.com/services/Anonymous%20Benchmarking%20Report%202004.pdf

Enterprise Surveys. 2010. What Businesses Experience. World Bank, Washington, DC. http://www.enterprisesurveys.org.

GoBA. 2012. White Paper on the Development of Tourism in Barbados. Strategic Solutions Inc.

IDB. 2013. Report: Second Generation of Reforms in Support for Sustainable Energy Framework for Barbados (BA-L1024), Proposal for Operation Development. IDB, Washington, DC.

Moore, Alvon. 2011. Demand Elasticity of Oil in Barbados. *Energy Policy* 39(6): 3515–9.

Moore, Alvon, Carlon Walkes, and Julian Jones. 2012. Import Substitution: How Practical Is It in Barbados? *Central Bank of Barbados Economic Review* 38(2): 44–60.

Moore, Alvon, and Julian Jones. 2011. A Note on Oil Consumption in Barbados. *Central Bank of Barbados Economic Review* 37(4): 11–15.

United Nations Environment Programme. Solar Energy in Barbados. http://www.unep.org/greeneconomy/SuccessStories/SolarEnergyinBarbados/tabid/29891/Default.aspx

Barbados: Selected Indicators

	2009	2010	2011	2012	2013 (F)
(Annual percentage changes, unless otherwise indicated)					
Real Sector					
Real GDP	-4.1	0.3	0.8	0.0	-0.8
Nominal GDP	1.2	-3.4	1.6	4.1	0.9
Inflation (end of period)	3.6	5.8	9.4	4.5	2.6
Unemployment	10.0	10.8	11.3	11.6	12.0
External Sector					
Exports of goods and services	-10.6	4.0	-1.6	4.8	-7.2
Imports of goods and services	-6.8	-0.7	-10.5	-6.7	-6.0
Current account (percentage of GDP)	-6.8	-5.8	-11.4	-4.8	-5.2
International reserves (USD millions)	744.4	717.7	711.7	730.05	n.a
International reserves cover (weeks)	21.1	18.4	17.7	19.5	n.a
(In percentage of GDP, unless otherwise indicated, on a fiscal year basis)					
Central Government					
Revenue and grants	26.4	26.8	29.3	27.7	28.8
Current expenditure	32.0	34.4	32.6	34.3	35.6
Capital expenditure and net lending	2.0	1.6	1.4	1.4	2.0
Primary balance	-2.6	-3.2	1.5	-0.8	-1.8
Overall balance	-7.6	-9.1	-4.6	-8.0	-8.8
General government balance	-6.0	-3.9	-4.4	-4.0	n.a.
Debt Indicators					
Central government debt	63.2	72.0	79.3	85.6	92.0
Central government debt over revenues	239.2	268.2	270.5	309.0	335.9
External public debt (end of period)	27.2	31.9	31.9	30.2	n.a.
External debt service as percentage of exports of goods and services	7.0	16.7	6.6	6.8	n.a.

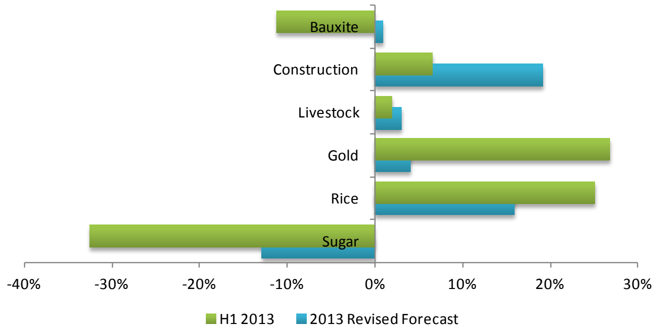
Note: (F) Forecasts numbers for 2013.

Source: Central Bank of Barbados, International Monetary Fund World Economic Outlook, October 2013.

Growth Continues Quickly Despite Lower Commodity Prices

Despite poor performance of the sugar sector and a slump in mineral prices, Guyana will achieve an eighth year of real consecutive growth. In the first half of 2013, economic activity expanded by 3.9 percent (from 3.6 percent in the first half of 2012) because of strong performances in the rice, mining, and manufacturing sectors. However, the plight of the sugar industry still weighs heavily on Guyana's overall economic performance: non-sugar economic growth plateaued at 6.0 percent, while the sugar sector diminished by 32.5 percent during the first half of 2013. As a result, authorities have lowered projected overall economic growth for 2013 from 5.3 percent to 4.8 percent.

Figure 1. Growth Rates, by Industrial Origin, January to June 2013



Source: Ministry of Finance and Bank of Guyana.

Perennial issues still plague growth of the sugar sector. In a record-low first crop of 48,038 metric tons, sugar output declined by 32.5 percent. The Government of Guyana attributes this decline to unfavorable wet weather conditions (e.g., rainfall during early cropping months) that have hindered land preparation and harvesting and to a decline of sugar canes supplied by private farmers as they divert to more profitable crops.

Despite successive underperformances, outlook in the sugar sector remains positive. The modernized Skeldon Sugar Factory will soon fully begin production after several months of successful rehabilitation, which had been commissioned to South African firm Bosch Engineering, and involved correcting design defects and conducting tests that yielded positive results. Authorities project that if weather conditions are favorable, a second crop will yield 190,000 metric tons and adequately meet the European Union and domestic quota, thereby stemming the slump in the industry to approximately 12.9 percent for 2013.

Highlights

Guyana's macroeconomic outlook continues to be strong despite tapering commodity prices. However, authorities have lowered expected output growth to 4.8 percent from 5.3 percent for 2013 as result of lower-than-expected output from the underperforming sugar industry.

Significant downside risks remain if the slump in commodity prices persists as world economies continue to strengthen. Authorities should continue pushing toward greater diversification and value-added production, as envisioned under the Low Carbon Development Strategy, to maintain growth momentum despite lower commodity prices.

There was an important decrease in workers' remittances during the first half of the year, resulting from economic pressures on the Guyanese diaspora in the United States and the slowdown in cross-border transfers from Brazil.

The rice sector continues to outperform all other traditional crops. It grew by 25 percent (see Figure 1) at June 2013 when compared with mid-year 2012. Authorities have credited improvements in yield and expansion in acreage sown for the record first crop. Incentives for production are driven by the rice compensation agreement with Venezuela, recently extended for another year. The agreement allows Guyana to receive preferential prices for rice and facilitates oil debt compensation. Authorities anticipate a 15.9 percent growth attributable to early land preparation for the second crop, with production expected to surpass 440,000 metric tons for 2013.

Surge in gold production in Guyana defies the slump in prices internationally. Gold production rose by 27 percent to 234,498 ounces in the first half of the year, approximately 52 percent of the targeted output for 2013. This greater-than-expected performance was achieved despite a price slump that fell below US$1,380 per ounce in mid-2013 from the record high achieved in 2011. Surplus returns on investments were achieved because of recent investments in the sector aimed to increase productive capacity when prices were high. In turn, this has enabled miners to realize profits despite lower prices because of their relatively low operational costs in comparison to initial investments. Given the strong mid-year performance, authorities expect gold output to meet its budgeted target of 450,031 ounces (approximately 5 percent growth). However, potential downside risks stem from continued price declines and hording by producers that reduce gold exports and thus foreign exchange earnings.

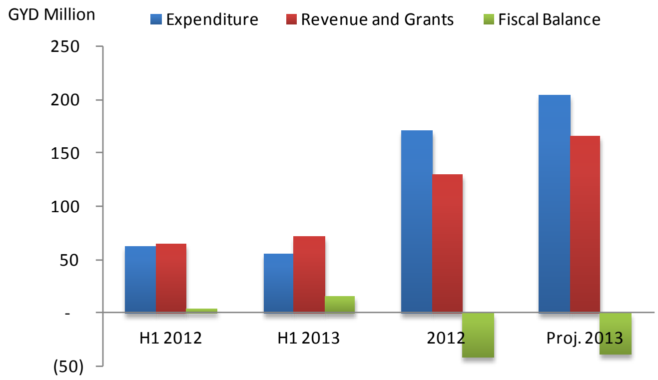
Construction activity remained vibrant and expanded by 6.6 percent at mid-year 2013. Growth in the construction sector was attributed to strong public sector activity that included road building and infrastructural works as well as robust activity in residential and commercial construction. Authorities

anticipate that combined private and public activity will result in a 19.1 percent expansion of the construction industry in 2013.

Fiscal Developments

Upsurge in tax revenue collection contributed to an overall surplus for central government despite payroll tax cuts. At June 2013, the fiscal surplus more than doubled at 132 percent because of a combination of a 10.7 percent growth in tax revenues and a 9.5 percent decline in central government expenditures. The favorable development in tax revenues was achieved despite a reduction in the payroll tax rate by 3.33 percent granted to private and public sector employees, announced at the 2013 national budget.

Figure 2. Fiscal Performance



Source: Ministry of Finance.

Simultaneously, in the first half of 2013 central government expenditure declined by 9.5 percent. Timing issues of the investment program resulted in delays in transfer payments, such as subventions to public corporations and project programming costs. These setbacks contributed to a decline of 16 percent in expenditures for transfer payments and 25 percent in expenditures in capital. However, expenditures on wages and salaries increased by 11.5 percent because of a 5 percent incremental salary raise for public servants; this raise originated from a multiyear compensation agreement signed in 2012. Authorities have projected a 19.1 percent increase in overall expenditures after programming delays are resolved.

Guyana's total external obligations declined by 14.2 percent, to US$1.2 billion, in the first half of 2013. Authorities have cited the end of the second round of debt compensation with Venezuela that resulted in the reduction of the oil debt by US$190 million through compensation with rice and paddy shipments under the Guyana–Venezuela Rice Trade Agreement.

External Sector Developments

In a drop in workers' remittances, despite lower import demand, the current account deficit worsened by 14.7 percent. The lower-than-expected performance of sugar and subdued commodity prices resulted in a meager 1.2 percent increase in export earnings. However, a 5.3 percent decline in the import bill—caused primarily by late starts to several capital projects—contributed to a marked decline of 15.7 percent in the merchandise trade deficit. An uncharacteristic decline in workers' remittances during the first half of the year mitigated the positive developments in the merchandise account. Authorities have cited the economic pressures on the Guyanese diaspora in the United States and the slowdown in cross-border transfers from Brazil as reasons for the decline in remittances. Remittances are projected to record a 0.1 percent growth at the end of the year.

Other Developments

Venezuelan President proposes continued cooperation with Guyana. During a 1-day visit to Guyana on August 31, Venezuelan President Nicolas Maduro and President Donald Ramotar issued a joint declaration that acknowledged the potential cooperation under the PetroCaribe mechanism. The presidents of the two countries have agreed to ask the Jamaica-born academic, Professor Norman Girvan, to continue serving as the United Nations Good Officer as Guyana and Venezuela settle their border dispute.

Qualfon Guyana begins multimillion-dollar investment. Guyana is expected to benefit from a multimillion-dollar state-of-the-art call center campus commissioned by Qualfon, one of the leading business process outsourcing providers. Qualfon CEO Mike Marrow announced in September 2013 that the campus is slated to be built in Providence, East Bank Demerara, to expand Qualfon's capacity in Guyana. The call center is expected to bring an estimated 6,000 new jobs over the next 5 years.

Repsol Petroleum will conduct a series of high-resolution seismic surveys offshore Guyana with state-of-the-art vessel. In May of 2013, the Government of Guyana and Repsol signed an agreement for petroleum exploration to be conducted in the Kanuku Block off the Berbice River by 2016. The survey vessel, Polarcus Asima, will undertake two- and three-dimensional seismic surveys offshore of Guyana's Northeastern Coastline.

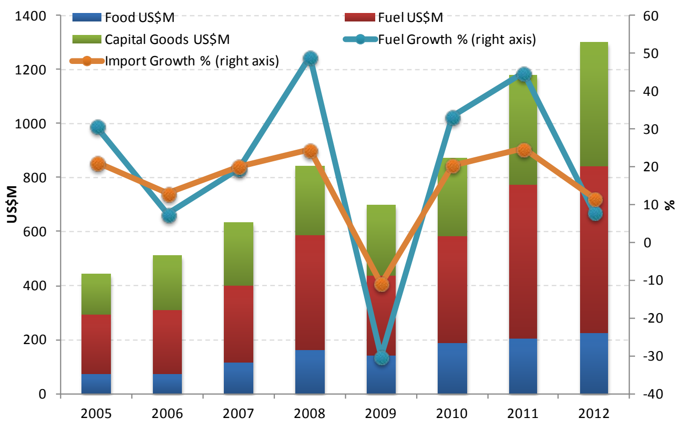
High-Frequency Macroeconomic Indicators	Last data	Period	Prior data	Period
Annual GDP growth (%)	3.9	H1 2013	4.8	2012
Exports (12-month growth)	1.2	H1 2013	23.6	2012
Imports (12-month growth)	-5.3	H1 2013	11.6	2012
Private sector credit growth (%)	16.5	H1 2013	24.7	2012
Inflation	0.2	H1 2013	3.5	2012
Exchange rate (end of period)	204.7	H1 2013	204.8	2012

*January to June period ended change 2013 over 2012.

Energy Consumption in Guyana is Based on Oil Derivatives

Guyana's economy depends predominantly on imported fossil fuels. These fossil fuels have been characterized by extreme volatility over the past decade. The economy's sole reliance on hydrocarbons has resulted in the near doubling of the value of total fuel payments, at 179 percent over 2005 to 2012, which mirrors Guyana's growing consumer demand and volatile fuel prices. In 2012, expenditures on fuel totaled US$619 million, approximately 31.2 percent of total imports (see Figure 3). This high dependence on hydrocarbons profoundly affects foreign exchange reserves and is the greatest contributor to a sustained current account deficit spanning nearly 25 years. The energy factor continues to be the most important element to improving Guyana's external sustainability and investment climate.

Figure 3. Evolution of Expenditure on Fuel Imports



Source: Bureau of Statistics.

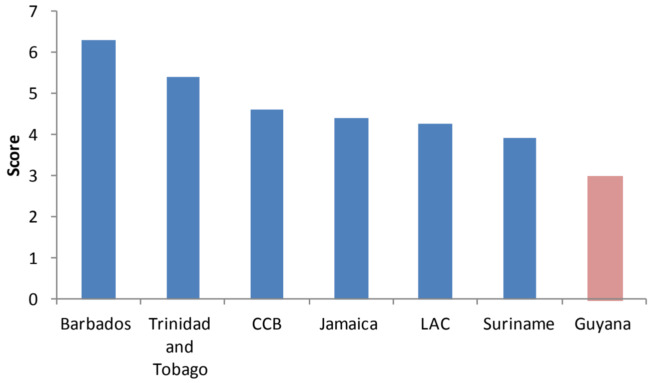
Insufficient Electricity

Most of Guyana's power-generation capacity is thermal-based. It uses heavy fuel oil or diesel, including independent providers with an installed capacity in coastal areas of around 35 MW. Guyana Power and Light, Inc. (GPL) is the principal public supplier of electricity. GPL has a nominal installed generation capacity of 160 MW and approximately 600 GWh of annually generated energy. The peak power output in 2010 was 100.9 MW.

The cost of electricity in Guyana is among the highest in the Latin American and the Caribbean region. Tariffs range from US$0.28 to US$0.32 per kWh. These costs are burdensome to residential consumers and hinder growth in the commercial and industrial sectors. High electricity costs are due mainly to (a) the cost of generation, which is dependent almost wholly on hydrocarbon fuels; and (b) technical and commercial losses, which are exacerbated by low collection rates and institutional capacity challenges of GPL that reduces reliability.

Guyana ranks 117 out of 144 countries for the Global Competitiveness Index's measure of the quality of electricity supplied. The index considers how individuals and firms assess the quality of the electricity supply in a country with respect to lack of interruptions and voltage fluctuations (1 = insufficient and suffers frequent interruptions; 7 = sufficient and reliable). In the measure of reliability, Guyana received a score of 3, which is 26 spaces away from its nearest Caribbean counterpart, Suriname, which ranks 91, with an overall score of 3.9.

Figure 4. Quality of Electricity Supply (2013)

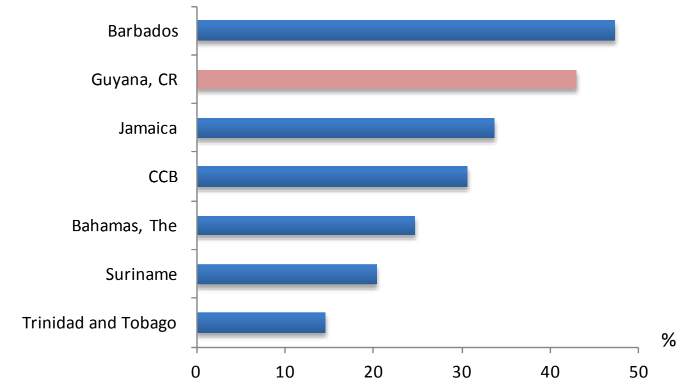


Source: Global Competitiveness Index (2008–2013). CCB = Country Department Caribbean; LAC = Latin American and the Caribbean.

The high cost of energy is the most debilitating factor that inhibits the growth of Guyana's manufacturing sector (Figure 5). On average, 43 percent of all businesses have cited insufficient supply and high energy charges reflected on the prices of their end products as deciding factors to expand into more external markets and diversify value-added production. This infrastructural deficiency results in loss of competitiveness and stymies the interests of foreign investors. With it comes loss of potential jobs in the manufacturing sector.

Because GPL is not able to supply enough reliable power at a competitive price, a relatively large self-generation market has developed. GPL faces a number of other challenges related to the capacity of its personnel, commercial management, financial procedures and reporting, and planning capacity. Self-generating installed capacity is around 47 MW, equivalent to almost 40 percent of GPL's. There are also independent providers with an installed capacity of about 35 MW in coastal areas.

Figure 5. Percentage of Firms That Identify Electricity as a Major Constraint



Source: Global Competitiveness Index (2008–2013).

Electricity coverage in the coastal zone is close to 90 percent, where most (also 90 percent) of the population is concentrated. However, electrification of hinterland communities remains relatively low, and more than 80 percent of the Amerindian population (largest population in the hinterland) lacks access to electricity, reducing the country's overall coverage to 81 percent. It is estimated that energy access for the 70,000 Amerindian residents living in 170 communities is severely limited because of the distance from major load centers. This circumstance has led the Government of Guyana to implement a hinterland electrification program to reduce the gap in energy access using solar-PV systems.

Policy Response

Fiscal measures to counteract oil price shocks have been reasonably effective. However, they have strained fiscal resources. When oil prices escalate, the government temporarily reduces the ad valorem excise tax on fuel in order to maintain fairly stable fuel prices and lessen the price shock to vulnerable groups. This implicit subsidy is usually removed when oil prices return to levels consistent with budget projections and targets. Despite increases in oil prices in recent years, GPL has not raised its tariffs since 2003, which has led to the need for fiscal transfers in years when elevated oil prices have spiked. The aggregate costs of this measure, including the implicit subsidy to GPL—which depends almost exclusively on imported fuel—equals 1.2 percent of GDP on average.

PetroCaribe oil partnership with Venezuela defers financing and minimizes foreign exchange pressures. Since 2005, Guyana has been participating in the PetroCaribe agreement, which permits the country to buy oil from Venezuela on preferential payment terms. Part of the market value of the oil is paid up front, and the remainder is paid over 25 years (including a 2-year grace period) at a 1 percent interest rate. Part of the proceeds of the financed portion is intended to be used for social projects in Guyana. In 2010, Guyana entered a concessional trade arrangement that allows the country to pay part of its oil debt to Venezuela through commodity exports. Thus far, rice has been the preferred commodity, which has granted Guyana a quota to ship 140,000 metric tons of seed paddy at US$520 per metric ton and 70,000 metric tons of white rice at US$800 per metric ton this year. However, since the death of President Hugo Chavez, uncertainty about financing terms and continuity of the PetroCaribe agreement arose. New Venezuelan President Nicolás Maduro has recently granted Guyana a 1-year extension of rice compensation agreement. In addition, Maduro has proposed raising the interest rate of the agreement to 2–4 percent, which could negatively affect Guyana's debt service costs.

Low Carbon Development Strategy: Energy

Despite 7 years of consecutive growth, Guyana still needs to tackle many underlying vulnerabilities in order to sustain the country's economic performance**.** Goals include removing infrastructure bottlenecks, facilitating product diversification, and promoting less dependence on the prices of a small number of volatile commodities such as hydrocarbon fuel. The principle of the Low Carbon Development Strategy is to transform Guyana into a low-deforestation, low-carbon, climate-resilient economy through policies that bolster investment in strategic low-carbon economic infrastructure, such as the development of medium-to-large hydropower projects.

The flagship of the Low Carbon Development Strategy, the Amaila Falls Hydro Project, was the main project to undertake over the next 5 years. This project would have nearly replaced all thermal generation capacity with alternative energy. Guyana's external vulnerability to oil price shocks would be significantly reduced by 2015 as demand for fuel imports fall drastically by 20 to 25 percent as the GPL switched to sourcing its power needs from thermal generation to a much cleaner and renewable hydropower source. The private sponsor decided to abandon the project in July 2013 when it deemed parliamentary support to be inadequate.

Guyana's potential is based mostly on medium-to-large hydropower projects. Guyana has potential also for developing nonconventional renewable energy (such as micro hydros, cogeneration with biomass, coastal wind development, and solar power). Although it is recognized that nonconventional renewable energy can hardly provide the bulk of Guyana's energy needs, this alternative reinforces the distribution network and contributes to increasing energy coverage in the hinterland.

The IDB continues to support Guyana in these efforts. Support includes strengthening the institutional and corporate capacity of the GPL and extending coverage. Interventions will support efforts to (a) continue technical and commercial loss reduction activities through capacity building of GPL, energy conservation, reduction of illegal connections and electricity theft, rehabilitation of the low-voltage distribution network, and improvements in metering; (b) increase generation capacity and promote the development of a more sustainable and greener energy matrix; (c) improve electricity coverage; and (d) enhance institutional, legal, and regulatory measures and support the agencies involved in the sector. Guyana has an extensive hydropower potential that is based on not-yet-harnessed or developed medium to large hydropower projects.

Guyana: Selected Indicators

	2009	2010	2011	2012	2013 (F)
(Annual percentage changes, unless otherwise indicated)					
Real Sector					
Real GDP	3.3	4.4	5.4	4.8	4.8
Nominal GDP (GYD millions)	359549	400922	460108	511337	n.a.
Inflation (end of period)	3.7	4.5	3.3	3.5	4.3
External Sector					
Exports of goods and services	-0.8	14.6	25.8	18.4	n.a.
Imports of goods and services	-6.8	17.9	25.1	13.6	n.a.
Current account (percentage of GDP)	-8.5	-10.7	-16.4	-15.7	-15.5
FDI (percentage of GDP)	8.1	9.9	9.9	10.8	13.8
(In percentage of GDP, unless otherwise indicated, on a fiscal year basis)					
Central Government					
Revenue and grants	27.2	26.0	26.5	27.9	28.8
Current expenditure	19.5	18.8	19.8	21.1	n.a.
Capital expenditure and net lending	7.7	7.2	6.7	11.1	n.a.
Overall balance	-3.7	-2.9	-3.2	-6.2	-7.0
Debt Indicators					
Central government debt	67.0	68.0	69.3	72.1	n.a
Central government debt over revenues	246.7	261.7	261.6	n.a.	n.a
External public debt (end of period)	45.9	46.1	48.6	54.2	n.a.
External debt service as percentage of exports of goods and services	1.8	2.6	3.0	n.a.	n.a.

Note: FDI= foreign direct investment; (F) Forecasts numbers for 2013.

Source: Central Bank of Guyana, International Monetary Fund World Economic Outlook, April 2013.

Recent Developments

The International Monetary Fund Board approved the first review of the Extended Fund Facility with Jamaica on September 30, 2013. Jamaica met all structural and quantitative targets without the need for waivers for the end-of-June test date. Performance on the main targets, primary surplus, fiscal deficit, and net international reserves was strong. However, growth remains weak. The approval resulted in a drawing of SDR19.97 million (US$30 million).

S&P has upgraded Jamaica's long-term rating to B- from CCC+. According to the rating agency, the upgrade reflects recent progress in stabilizing the economy, stopping the loss of foreign-exchange reserves, and gaining access to new external funding from official creditors. The stable outlook reflects the view of the agency that the government will adhere to the Extended Fund Facility quantitative and structural targets this year while advancing its tax reform agenda without a substantial fall in foreign-exchange reserves.

Business confidence fell to its lowest level since the low experienced in 2009 during the world economic crisis. All components of the confidence index declined with the largest declines experienced in how firm's viewed the outlook for the national economy and, consequently, how they judged prospects for their own investment spending. As a consequence, plans for investments are suffering, too. 60 percent of surveyed firms thought it was a bad time to make new investments in the 3rd quarter (up from 42 percent in the prior quarter).

Jamaica remains in recession for the sixth consecutive quarter. Persistent drought conditions and a weak global economic environment contributed to a contraction by 0.4 percent in the second quarter of 2013. On the basis of a resurgence after the impact of Hurricane Sandy in 2012 and improvements in investor confidence late in the fiscal year, the Government of Jamaica expects growth of 0.8 percent for the current fiscal year, followed by an acceleration to more than 2 percent in FY16/17.

Putting Jamaica on a sustainable growth path is a major challenge. The Extended Fund Facility supports the Jamaican growth strategy to facilitate growth. Besides structural reforms to reduce constraints to growth, the government aims to facilitate strategic investments, including the establishment of Jamaica as a logistic hub. Jamaica has also participated in the Caribbean Growth Forum and will start implementation in October.

Highlights

Jamaica has met the structural and quantitative targets for the first review, which was considered by the International Monetary Fund Board on September 30, 2013.

Implementation of the comprehensive tax reform has started with the tabling of two central legislations. The new tax system should be fully implemented on April 1, 2014.

Jamaica remains fragile, making the outlook dependent on shocks and loss of confidence.

The fundamental reforms required for the program targets have experienced some political resistance. However, there is broad consensus, including from the newly formed Social Partnership and from the private sector, that failure to remain on track with the Extended Fund Facility would entail substantial downside risk.

S&P upgraded Jamaica to B- from CCC+ with a stable outlook.

Jamaica's economy continues to be highly vulnerable. Investors remain cautious given the challenging structural reforms and quantitative targets that have to be met under the International Monetary Fund program. The continuing depreciation of the JM dollar over the past 18 months has also dampened investor and consumer confidence. The real depreciation improves competitiveness but negatively affects the import-dependent industries and consumers (e.g., fuel alone comprises one third of imports). At the same time, the structural imbalance of the external account is worrisome for the medium to long term.

The level of international reserves remains below desirable levels. Net reserves declined from more than US$2 billion as of April 2011 to less than US$900 million as of the end of August 2013. The reserves exceeded the Extended Fund Facility targets for June and the current level is in line with the September target but it is below the minimum threshold of US$1.2 billion to cover short-term foreign liabilities. Official inflows will continue to be required in the short to medium term because a strong recovery in foreign direct investment or an increase in private capital flows to cover the balance of payments deficit is expected to take time.

Interest rates have been trending upwards. The February 2013 debt exchange reduced interest charges on variable and fixed-rate debt. However, the benchmark T-Bill rate has been increasing, resulting in interest rates at levels similar to immediately before the National Debt Exchange. Almost 40

percent of Jamaica's domestic bonds, which are equivalent to around 20 percent of direct public debt, have a variable interest rate, making the interest rates a major factor for fiscal sustainability.

The medium-term fiscal framework targets a primary surplus of 7.5 percent of GDP from FY2013/14 onwards. In the short term, the increase in the primary surplus will be based on additional expenditure restraints and revenue measures, but deeper, structural measures are required—such as the implementation of the comprehensive tax reform in end of March 2014—for medium-term sustainability.

Jamaica's public debt remains among the highest in the world, at more than 140 percent of GDP. Even after the debt exchange and the still-historically-low interest rates, interest payments alone will absorb almost 30 percent of government's revenue in FY2013/14. The medium-term macroeconomic framework supported by the Extended Fund Facility projects a decrease of the debt-to-GDP ratio to around 100 percent by March 2020.

The economic program supported by the Extended Fund Facility is challenging. High primary surpluses have to be maintained over an extended period of time. Without ongoing clear commitment to the Extended Fund Facility, the external vulnerability could lead to capital flight putting pressure on the exchange rate and international reserves.

The economic weakness since the start of the world economic recession has taken a toll on the population. Unemployment has been increasing continuously from 9.4 percent in 2007 to 16.3 percent, as of April 1, 2013. The last increase in the unemployment rate was caused by a spike in jobseekers as employment remained constant, indicating that persons stepped up their efforts to seek work. The uncertainty surrounding the economy is a possible reasons for the increase in job seekers.

Security continues to be a major concern in Jamaica. There has been a reduction in homicides since 2010, partly attributed to the restriction of gang operations by the state security forces. The government is making efforts to dismantle informal governance arrangements and empowering citizens in affected communities to reintegrate into the main society, but some areas remain volatile. Despite the efforts to curtail major crimes, recent statistics indicate that there is an increase of approximately 5 percent in the number of people murdered thus far in 2013 compared with the similar period in 2012.

Issues to Watch Out For

- The drop in investor confidence could slow down the already weak growth prospects. Adherence to the EFF and support of growth friendly reforms are needed to give businesses confidence to start investing again.

- The tabling of the charities and omnibus tax incentive bills are important milestones for the comprehensive tax reform. Complementing the tabling, the government will have to cease the granting of tax incentives under the regime prior to the Omnibus Tax Incentive Act and of any discretionary tax waivers by December 31, 2013.

- Other major reforms for December 31, 2013, are the Establishment and Operation of a Central Collateral Registry and the implementation of a legal and regulatory framework conducive to collective investment schemes.

Effects on Our Work

The reforms embedded in the Extended Fund Facility, the protection of poor and vulnerable groups, and the implementation of the government's growth agenda offers various opportunities for Jamaica's development partners to provide technical and financial support.

High-Frequency Macroeconomic Indicators

	Last data	Period	Prior data	Period
Annual GDP growth (%)	-0.4	Q2 2013	-0.9	Q1 2013
Inflation (Quarterly)	1.1	Q2 2013	2.7	Q1 2013
Net International Reserves (USD Mill)	881.6	Aug-13	929.7	Jul-12
Exchange rate (end of period)	102.08	Aug-13	101.86	Jul-13
Unemployment rate (%)	16.3	Apr-13	14.2	Jan-13

Source: Bank of Jamaica, International Monetary Fund, and STATIN.

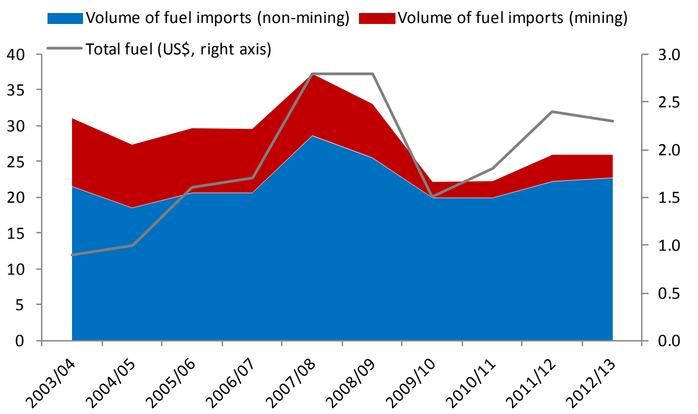
Introduction

Energy is a major issue in Jamaica. Like other island states, Jamaica has little potential for hydropower and currently has no domestic oil and gas exploration. As a consequence, Jamaica covers most of its energy requirements from imported hydrocarbons. High oil prices combined with old, inefficient generation technologies result in Jamaica's electricity prices, on average 36 cents/kwh, being among the highest in the Latin America and Caribbean region.

Petroleum fulfills approximately 90 percent of the energy requirements. The aluminum/bauxite industry, electricity generation, and transportation sectors are the major sources of demand. Despite efforts to tap into the abundance of renewable energy sources in Jamaica, its generation, however, has been unable to keep up with the current growth in energy demand.

Oil import values in Jamaica have been growing at a rate of 30 percent before the World Economic Recession. Oil volumes have fallen during the downturn but are recovering again, especially for the non-mining sectors. Given the increase of the oil price in the same period, the value of oil has increased threefold despite the reduction in volumes. The increase of Jamaica's oil consumption is unsustainable because it is higher than the growth rate of the population or GDP.

Figure 1. Oil imports 2003/4 to 2012/13

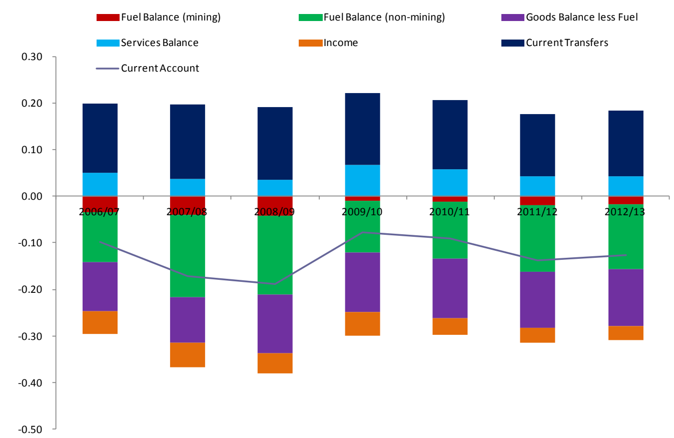


Source: Bank of Jamaica and original calculations.

Big Price, Big Issue

Jamaica Public Service Company is the major producer and sole distributor of electricity. Other independent power producers such as Wigton Wind Farm and Jamaica Power Company sell their electricity to Jamaica Public Service Company, which faces different challenges in distribution. The distribution network is old and inefficient, suffers from transmission losses, and faces thefts that are rampant and increasing. From 1990 to 2008, technical losses have been around 10 percent while non-technical losses, which includes theft, have increased from 7 percent to 12.6 percent. As a result, losses constitute an important share of the price paid by the end-user. Jamaica Public Service Company is making significant efforts against theft and has been removing thousands of illegal connections island-wide; however, evidence indicates that non-technical losses are linked to the deeper seated problems of poverty and crime, which cannot be solved by stronger enforcement.[1]

Figure 2. Current Account Balance (% of GDP)



Source: Bank of Jamaica and original calculations.

Big Price and Big Volume = Big Risk

Over the past 5 years, fuel imports as a percentage of total goods imports have been on average 35 percent, making the price of oil one of the major risks for the current account. Part of energy imports is for the mining sector, which has a compensatory effect on the balance of payments through bauxite and alumina exports. However, given the weak state of the bauxite industry, 90 percent of current oil imports are non-mining. Bank of Jamaica estimates that an increase in the average oil price by 10 percent leads to a current account deterioration of 0.8 percent of GDP. Other than fuel, Jamaica's balance of payments flows are relatively stable, leading to a strong correlation of the current account deficits and the value of fuel imports (Figure 2).

[1] See references on page 23 in Power and Possibility: The Energy Sector in Jamaica, 2011

Petro-Caribe to the Rescue

Energy imports constitute a major risk for the external sector. In the Jamaican case, the current account faces the risk not only from an oil price shock but also from a suspension of the PetroCaribe Agreement. The 2005 agreement with Venezuela allows Jamaica to convert a portion of each payment by Petrojam Limited for crude oil and petroleum products into a long-term concessional loan, administered by the Petrocaribe Development Fund.

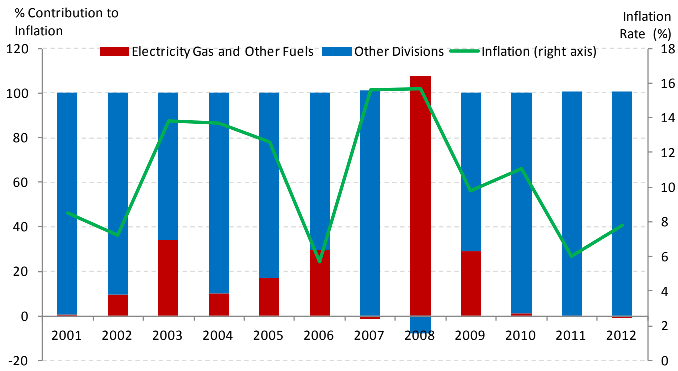
Jamaica benefits in two ways from PetroCaribe. First, given that part of the petrol payment is paid not to Venezuela but to the domestic Petrocaribe Development Fund, the financing requirement of the balance of payment is substantially lower than what it would be if petroleum were paid in full. Second, the Government of Jamaica, as well as state-owned enterprises that are the main beneficiary of the funds, has access to a credit facility on concessionary terms. In addition, the Petrocaribe Development Fund provided countercyclical financing when official and commercial external financing was not available.

An end of the Petrocaribe Agreement would have important implications for Jamaica. According to government estimates, the balance of payments benefits by US$500–US$600 million per year, which is equivalent to 25 to 30 percent of last year's current account balance. In addition, the government benefits from concessional financing for the budget or state-owned enterprises. According to recent assurances by the government, Venezuela has agreed to not modify the terms of the agreement with Jamaica for at least the duration of the Extended Fund Facility.

Energy price fluctuations are also a major determinant of inflation. Even though energy comprises less than 10 percent of the weight in the consumer price index basket, its direct contribution to inflation has been on average 20 percent over the past 12 years (Figure 3). Given the importance as an input in production for most of the goods, its indirect impact would even be higher.

How does energy affect the ability of firms to grow? According to the 2010 World Bank's Enterprise Survey, only 12.4 percent of firms state that electricity is the biggest constraint/obstacle to the growth of their firm. The result is surprising given Jamaica's dependence and the high energy price mentioned before. However, 34 percent of firms state that electricity is a major or severe constraint to growth, which is high compared with other Country Department Caribbean countries. As such, energy is an important factor but Jamaican companies face other constraints that are even worse.[2] In addition, energy has been expensive for an extended period, giving firms time to adjust to it (one adjustment would be to close the company or not start one in a specific sector that would require cheaper energy). Most sectors consider energy as a problem even though a bigger share of large firms and firms in the manufacturing sector regard electricity as the biggest obstacle (18.9 percent and 20.5 percent, respectively).

Figure 3. Contribution to Inflation of Electricity, Gas, and Other Fuels Compared With the Other 21 Division



Source: Bank of Jamaica.

Conclusion

Jamaica imports unsustainable and increasing amounts of fuel at prices that have shown a tendency to increase and that they cannot control. This energy dependence puts Jamaica's balance of payments at risk. Given that electricity is mostly produced using hydrocarbon, it has become progressively more expensive, adversely affecting consumers and businesses.

Energy efficiency and alternative energy sources are high on the government's agenda. At present, the Government of Jamaica is in the process of tendering a license for a 360-MW plant based on LNG and an additional 115-MW tender for renewable energy. In addition, Jamaica still has room to save energy through conservation (e.g., through the use of more energy-efficient equipment and measures to reduce buildings' energy consumption). An example of this is the IDB's Energy Efficiency Loan Program that will provide substantial savings to the Government of Jamaica through the installation of highly efficient and energy conservation equipment to public sector building.

[2] See discussion in August 2013 Quarterly Bulletin.

Jamaica: Selected Indicators

	2009/10	2010/11	2011/12	2012/13	2013/14 (F)
(Annual percentage changes, unless otherwise indicated)					
Real Sector					
Real GDP	-2.6	-0.6	1.3	-0.3	0.8
Nominal GDP	8.1	7.8	5.9	7.8	10.5
Inflation (end of period)	13.3	7.8	7.3	9.0	10.5
Exchange rate (end of period)	89.5	85.7	87.3	98.9	n.a.
External Sector					
Exports of goods and services	-19.1	-0.1	6.2	2.9	n.a.
Tourism (percentage of exports)	43.2	44.7	47.1	45.6	n.a.
Imports of goods and services	-30.3	8.2	17.4	-3.5	n.a.
Current account (percentage of GDP)	-7.6	-8.9	-14.8	-11.6	-10.8
Treasury bill rate (percent, end of period)	10.5	6.5	6.2	5.8	n.a.
(In percentage of GDP, unless otherwise indicated, on a calendar year basis)					
Central Government					
Revenue and grants	27.1	26.4	25.5	25.5	27.0
Budgetary expenditure	38.1	32.8	31.9	29.5	27.4
Primary balance	6.1	4.5	3.1	5.4	n.a.
Budget balance	-11.0	-6.5	-6.4	-4.0	-0.5
Public sector balance	-12.4	-7.0	-6.4	-4.4	-0.6
Debt Indicators					
Public sector debt	139.5	141.3	143.7	146.4	141.8
Public sector debt over revenues	514.1	536.1	563.7	n.a.	n.a.
Foreign currency public debt (end of period)	80.5	83.3	81.4	76.0	n.a.
External interest payments as percentage of exports of goods and services	12.1	11.5	10.4	n.a.	n.a.
International Reserves					
Net international reserves (USD Mill)	1752	2553	1777	884	1225
Gross international reserves (weeks of good and services imports)	18.4	23.4	17.8	<12	n.a.

Note: (F) Forecasts numbers for 2013.

Source: Ministry of Finance and Planning, Bank of Jamaica, Statistical Institute of Jamaica, International Monetary Fund and own calculations.

Highlights

Suriname hosted the seventh Union of South American Nations (UNASUR) in September and is the chair for the new term.

Despite falling gold prices, real GDP growth is expected to exceed 4 per cent in 2013.

The 2012 Census results were presented in September and showed that maroons and mixed-race people are the fastest growing ethnic groups in Suriname.

The fiscal outturn is expected to be better than budgeted despite challenges in 2013.

Recent Developments

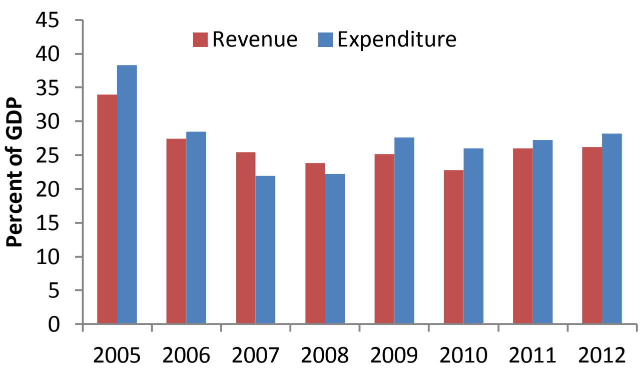
Suriname hosted the seventh Union of South American Nations (UNASUR) summit in September and took over leadership of the organisation from Peru on September 1, 2013. UNASUR's main goal is to further the integration process of South American countries in trade, economic development, and unrestricted movement. Suriname will chair 4 of the 12 councils: Social Development, Culture, Electoral Affairs, and Health Care. Suriname's active involvement in the organisation further signals its determination to forge closer ties with South American and Caribbean neighbours. At the country's insistence, the conference agreed to establish the UNASUR Youth Congress. The summit discussed the introduction of a UNASUR passport for all South American citizens by 2019 as one of the main items.

The Minister of Finance was dismissed at the beginning of October 2013. President Bouterse reportedly dismissed Minister Adelien Wijnerman, citing his need to further improve public financial management at a more expeditious pace. No specific details were disclosed. This dismissal means that the MC government will have to install its third (yet unidentified) minister of finance in three years.

Amid some fiscal slippages and lower gold prices, the Government of Suriname tightened spending to bring the deficit under control. The fiscal balance deteriorated in 2012 to –2.8 per cent deficit from –1 per cent in 2011 as a result of large expenditures undertaken at the end of the year, including a 10 per cent salary increase to public servants. Preliminary midyear numbers show that revenues in 2013 are around 13 per cent higher, but expenditures are also around 20 per cent higher than 2012. Falling gold prices and higher capital expenditures at the beginning of the year have contributed to this development. Spending has now tightened significantly and the Government of Suriname projects a fiscal deficit of around 3 per cent for this year, compared with 4.1 per cent, which was in the Budget 2013. The Government of Suriname is committed to reducing fiscal expenditures and increasing revenues, moving away from its reliance on commodity-based revenues and focusing on the implementation of the value-added tax.

The Central Bank announced a 5 per cent increase in the reserves requirements for SRD and foreign currency, bringing the requirements to 30 and 45 per cent, respectively. The move was made to limit money circulation in the economy as credit in local currency increased by 9.9 per cent in 2012 and 16.8 per cent at midyear 2013. As a result of this measure, interest rates are expected to increase, particularly for consumption loans. The Government of Suriname switched to conducting all business transactions in local currency in 2011 and is actively discouraging the use of foreign currency credit in transactions.

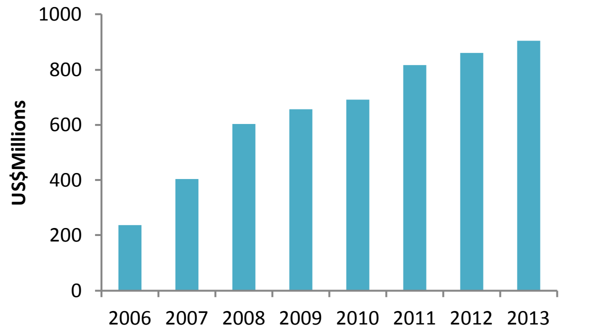
Figure 1. Revenue and Expenditure, 2005–2012



Source: International Monetary Fund; Central Bank of Suriname.

Gross international reserves recovered in the second quarter of 2013 to US$903.8 million from its fall at the end of the first quarter to US$861.4 million. Reserves are now 6 months of imports and are expected to grow over the medium term to US$1,973 million and 8.4 months of imports by 2017. International reserves also equal about 20 per cent of GDP. See Figure 2.

Figure 2. Gross International Reserves

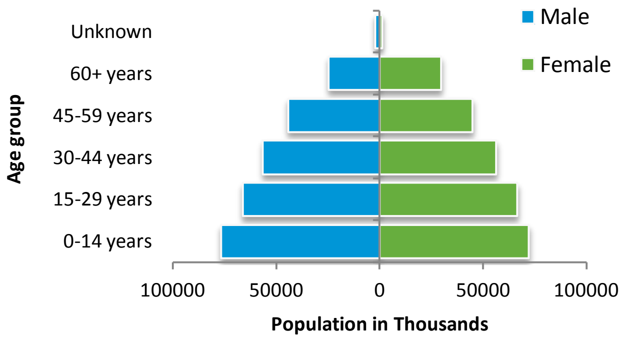


Source: Central Bank of Suriname.

Following complaints by cambios regarding the availability of foreign currency, the Central Bank lifted the 15 per cent deposit requirement. While the USD–SRD exchange rate remained stable at US$1.00–SRD3.35 there were many complaints by cambio owners of running short of US dollars. The Central Bank took some temporary measures refuting claims that another devaluation is perhaps necessary.

The 2012 Census Report shows that the population increased from 531,306 (2004) to 541,638. The report shows that the maroons and mixed-race population are the fastest growing group in Suriname—perhaps because of a reclassification of identity as more people identify themselves as either maroon or mixed race. The largest group remains the Hindustanis with 148,000 persons. In addition, the census showed that Suriname has an aging population. The working-age population (15-59 years) grew 12 per cent since 2004, whereas the senior population (above 60 years) grew 30 per cent (see Figure 3). Against this background, the Government of Suriname has submitted a Pension Bill to parliament for consideration. The bill proposes to raises the retirement age from 60 to 65 years.

Figure 3. Population Pyramid, 2012



Source: Bureau of Statistics.

The budget process for 2014 has begun. In further attempts to strengthen monitoring and reporting capabilities, this year, the Government of Suriname will use program budgeting and the Integrated Financial Management Information System to monitor all expenditure activities of the public sector. Budget presentations are expected to be completed shortly.

As absorptive capacity grows, the Government of Suriname is pushing large-scale capital investment projects that will enhance the transportation, energy, and housing sectors. Some of these activities are being pursued within the context of a public-private partnership framework. Regardless, on the basis of its concerted effort to overcome years of suboptimal levels of capital investments, the Government of Suriname projected in its latest budget statement a gross financing gap of approximately US$197 million, of which IDB's (together with Chinese funds) policy-based loan disbursements will finance 65 per cent in 2013. The medium-term fiscal balance is expected to be less than –3 per cent of GDP. Meanwhile, Government of Suriname is rolling out its strategy to update its debt policy by formalising arrangements with new lenders and preparing to issue its first international sovereign bond. Total debt remains close to 20 per cent of GDP—the lowest in the region.

The IDB and Suriname: What to Expect

The IDB's remaining program for 2013 consists of one investment loan in energy for US$30 million and three policy-based lending operations: (a) revenue policy administration for US$20 million in December 2013, (b) agriculture for US$15 million, and (c) energy for US$10 million in November 2013. The current macroeconomic conditions appear stable and suitable for supporting the IDB program over the near term. The Caribbean Economics Team-Suriname continues work on growth analytics, and the effects of commodity price changes.

High-Frequency Macroeconomic Indicators	Last data	Period	Prior data	Period
Annual GDP growth (%)	4.0	2012	4.2	2011
Tourism arrivals (annual % change)	20.5	Feb-13	7.9	Jan-13
Exports (12-month growth)	16.1	Q4 2012	9.5	Q1 2012
Imports (12-month growth)	12.2	Q4 2012	14.4	Q1 2012
Private sector credit growth (%)	2.4	Q1 2012	3.4	Q4 2011
Inflation	3.6	Jun-13	2.6	May-13
Exchange rate (end of period)	3.35	Jul-13	3.35	Jun-13

All That Glitters: The Fiscal and Development Impact of Falling Gold Prices in Suriname[1]

The price of gold is one of the most closely watched prices in the world. As they crept upward before and during the Great Recession, many people saw the promise of long-term, profitable investment. For many countries, the lure of gold mining revenue prompted increased government involvement in the sector.

Suriname, a country that is rich in untapped natural resources, has aimed to take advantage of exploding gold prices, while walking the tight rope of trying to avoid Dutch Disease. Without proper management of the economy's exposure to gold, a shock to the price of gold could result in increased debt, lower growth, and a reduced quality of life for many. In other parts of the world, we have seen how myopic behaviour on the part of politicians in this regard ended up in missed opportunities in other productive sectors such as agriculture.

In Suriname, gold revenues increased dramatically in recent years to more than 14 per cent of total revenue in 2012. With almost no contribution to total revenue in 2000, this result represents a stark increase over the past decade. Suriname's current account balance remained mostly positive while foreign direct investment increased—quite the opposite when compared with most of the Caribbean.[2] In addition, rising commodity prices significantly strengthened Suriname's international reserves reaching around US$1 billion (more than 5.5 months of imports) in 2012.

At present, Suriname has stakes in one mine with plans to expand to a second in the near future. Rosebel Mine, located in the Brokopondo District, is operated by Canadian-based IAMGOLD. Covering more than 170 square kilometers, the mine had production costs of $671 per troy ounce in 2012. In April 2013, IAMGOLD agreed to increase Suriname's stake in the gold mine to 30 per cent from 5 per cent. A second gold mine, the Merian Gold Project, was approved in June 2013. In conjunction with U.S.-based Newmont Mining Corporation and Alcoa Worldwide Alumina, the Government of Suriname will receive a 6 per cent royalty over 25 years.

In March 2013, the Government of Suriname announced its plans to finance its participation in these deals by issuing its first sovereign bond for US$500 million with a maturity of 10 years. Equal to approximately 11 per cent of the nation's gross national product, the bond represents a substantial commitment to the gold sector.

Gold prices vary greatly—moving based on economic uncertainty and deteriorating conditions. Following a sharp rise in prices in the years leading up to 2011, the price of gold began dropping after reaching a record high of more than US$1,900 per troy ounce. According to the World Bank, prices are expected to continue their descent but settle around US$1,350 per troy ounce in 2015 as economic recovery picks up and the prospect of tightening monetary policy further leads investors out of the gold market.[3]

Lower prices have numerous implications for Suriname. As expected, mining sector revenue, as a share of GDP, is expected to fall. We consider mainly the fiscal ones in this short note.

Predicting the Effects of a Gold Price Shock

We analysed debt and fiscal sustainability for three different scenarios: a baseline that assumes no changes in the composition and magnitude of expenditures; a second modelled with gold prices remaining low at US$1,200; and a third model that introduces the US$500 million bond and its investments even while gold prices remain around US$1,200 over the medium term. We used the standard approach, fan charts, and the endogenous debt dynamics model.[4]

The baseline analysis provided data useful for comparison. Without changes to expenditure behaviour, the required adjustment in per cent of GDP is 2.12 per cent and the fan chart demonstrates a decrease in the debt-to-GDP ratio. In other words, Suriname could lower its primary surplus by 2.12 per cent and still maintain its debt level.

Table 1. Standard Approach: Baseline

Required adjustment (% GDP)

Average real interest rate	Long-Term GDP growth rate: 3.1%	4.1%	4.7%	5.1%	6.1%
-4.4%	-2.21%	-2.37%	-2.47%	-2.53%	-2.69%
-3.9%	-2.12%	-2.29%	-2.38%	-2.45%	-2.60%
-3.4%	-2.04%	-2.20%	[illegible]	-2.36%	-2.52%
-2.4%	-1.86%	-2.03%	-2.12%	-2.19%	-2.35%
-1.4%	-1.68%	-1.85%	[illegible]	-2.01%	-2.17%
-0.9%	-1.60%	-1.76%	-1.86%	-1.93%	-2.09%
-0.4%	-1.51%	-1.68%	-1.78%	-1.84%	-2.00%

[1] This note was prepared with Luke Smith and Sasha Baxter.
[2] The Caribbean average current account balance ranges from -10 per cent of GDP to –20 per cent of GDP over the same period.
[3] World Economic Outlook, April 2013.
[4] Eduardo Borensztein, et al. Template for Debt Sustainability, 2010.

TABLE 2: STANDARD APPROACH- US$1200 SHOCK

Required adjustment (% GDP)

Average real interest rate	Long-Term GDP growth rate: 2.9%	3.9%	4.5%	4.9%	5.9%
-4.4%	4.24%	4.08%	3.99%	3.92%	3.77%
-3.9%	4.33%	4.17%	4.07%	4.01%	3.85%
-3.4%	4.42%	4.26%	[illegible]	4.10%	3.94%
-2.4%	4.59%	4.43%	4.33%	4.27%	4.11%
-1.4%	4.77%	4.60%	[illegible]	4.44%	4.28%
-0.9%	4.86%	4.69%	4.59%	4.53%	4.37%
-0.4%	4.95%	4.78%	4.68%	4.61%	4.45%

TABLE 3: STANDARD APPROACH – US$1200 AND BOND SHOCK

Required adjustment (% GDP)

Average real interest rate	Long-Term GDP growth rate: 2.9%	3.9%	4.5%	4.9%	5.9%
-4.4%	3.64%	3.40%	3.26%	3.17%	2.94%
-3.9%	3.77%	3.53%	3.39%	3.30%	3.07%
-3.4%	3.90%	3.66%	[illegible]	3.42%	3.19%
-2.4%	4.16%	3.91%	3.77%	3.68%	3.44%
-1.4%	4.42%	4.17%	[illegible]	3.93%	3.69%
-0.9%	4.54%	4.30%	4.15%	4.06%	3.82%
-0.4%	4.67%	4.43%	4.28%	4.18%	3.94%

As expected, when we assume low average medium-term gold prices of US$1200, we see that debt-to-GDP ratio approaches an inflexion point before turning to an upward path. When gold prices fall, mining companies are unable to produce at their original profit margin. Thus, revenues are reduced. With reduced revenues reaching the government, the government must cut expenditures or borrow to compensate if expenditures remain the same. The bond appears to make the previous scenario (of lower gold prices) better as output capacity increases (an so too revenues and aggregate demand). Thus, despite the accumulation of debt, the increase in revenue would help to offset the required primary surplus. The fan chart model shows that with the implementation of the US$500 million bond and the fall of gold prices, the debt to GDP ratio experiences a dramatic upswing however (as expected). At present, Suriname's debt-to-GDP ratio is around 20 per cent. However, the debt-to-GDP ratio would be most likely to reach more than 30 per cent and grow to 40 per cent by 2017 with the addition of the bond.

FIGURE 4: BASELINE

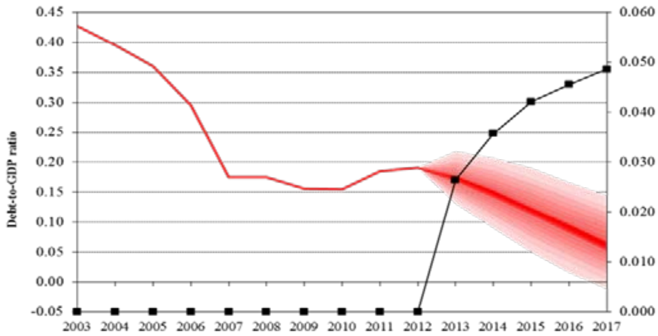


FIGURE 5: US$1200 SHOCK

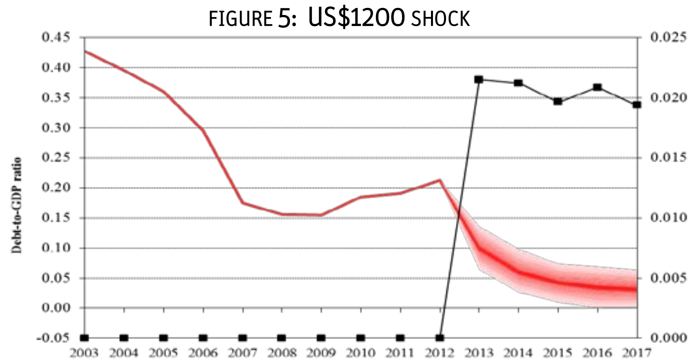
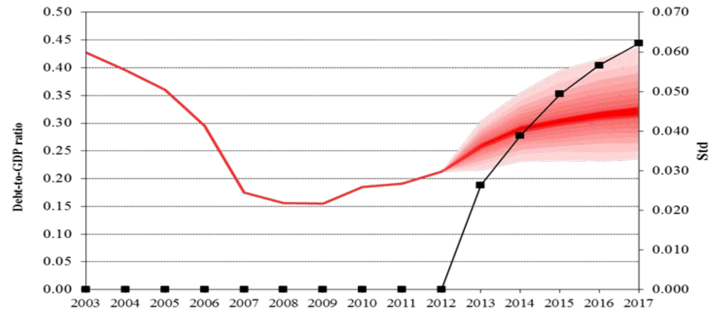


FIGURE 6: US$1200 AND BOND SHOCK



What Should Be Done?

For Suriname to avoid the possible negative effects of a gold price shock, numerous short- and long-term goals must be considered; planning is the most important. Suriname must also remain steadfast in improving expenditure management, finalize a rainy-day savings account (publicly and privately), manage its debt in a sustainable and responsible manner, consider new growth options, and never lose sight of the need to stimulate the non-mineral sectors over the long term.

In 2012, President Desi Bouterse reaffirmed his commitment to establishing a sovereign wealth fund in Suriname. The fund is designed to make revenues from natural resources sustainable. In creating the fund, a surplus of the mineral revenues is saved to create a buffer which can be used in the event of a negative shock. In his 2012 New Year's address, President Bouterse claimed the fund will "enable Suriname to survive times of adversity. . . It will also be a good basis for economic development to the benefit of many generations after us." The fund will be managed by the monetary authorities. Thus, management of the fund must be clearly mandated and transparent.

While the government has begun the process of setting up a rainy-day fund, Surinamese residents must consider a private fund as well. As previously modelled, the addition of the $500 million bond to a $1,200 gold price would result in dramatic increased in government debt. In such a scenario, restoring fiscal sustainability would no doubt mean reduced government expenditures and citizens could be directly impacted.

In addition to setting up a rainy day fund, the government must work to ensure expenditures are controlled, responsible, and without waste. Also, the government should establish strong fiscal rules to institutionalize good management. Authorities are aiming to enhance tax administration and achieve budget balances. As such, the Government of Suriname plans to institute a value-added tax.

Suriname is a unique country in that it holds the capacity to reach into numerous, profitable sectors. At present, the economy is focused on mining, including gold and bauxite. However, aside from gold there are numerous options available to Suriname. One such option is agriculture, the productivity of which has declined in recent years. Ultimately, diversification is pivotal to managing economic decline when faced with price shocks. Over the long term, the government should move toward a productivity-based export-oriented system. Under this system, the government is able to profit through the stimulation of non-mineral sectors. For example, by harnessing carbon credits, environmental tourism, healthcare advances, and telecommunications, the government can increase revenue while also diversifying.

Final Remarks

Overall, Suriname remains in a strong position to effectively diversify and prepare for a wide range of possible shocks. With effective management of its resources, Suriname can improve its fiscal position and mitigate the impact of gold prices while improving the quality of life for its residents. Through diversification, Suriname can help ensure sustainable income despite economic shocks.

Reference

Borensztein, Eduardo, Educardo Cavallo, Bernardita Piedrabuena, Cesar Rodriguez, Cesar Tamayo and Oscar Valencia et al. 2010. "Template for Debt Sustainability" Inter-American Development Bank , Washington DC, USA .

Suriname: Selected Indicators

	2009	2010	2011	2012	2013 (F)
(Annual percentage changes, unless otherwise indicated)					
Real Sector					
Real GDP	3.5	4.5	4.2	4.7	4.7
Nominal GDP	-3.1	13.2	25.8	11.94	11.7
Inflation (end of period)	1.3	10.3	15.3	3.4	5
Exchange rate (end of period)	2.75	2.75	3.3	3.3	3.3
(In percentage of GDP, unless otherwise indicated, on a calendar year basis)					
External Sector					
Exports of goods and services	68.2	54.3	64.5	63.1	n.a.
Imports of goods and services	60.7	62.7	73	68.8	n.a.
Current account	-1.1	1	0.4	-0.2	-2.1
Gross international reserves (USD Mill)	763	785	987	1,209	1,477
Savings and Investment					
Private sector balance	1.9	9.6	4.7	-0.6	-2.0
Public sector balance	-2.4	-3.1	0.9	0.5	0.0
Savings	3.3	1.8	6.9	6.3	5.6
Investment	5.7	4.9	6	5.8	5.7
Central Government					
Revenue and grants	36.4	25.8	26	25	24.1
Total expenditure	35.3	28.2	25.2	24.5	24.1
Primary balance	-1.2	-2.3	1.8	1.4	0.9
Overall balance	-3	-3.6	0.9	4.0	3.0
Consolidated NFPS balance	-3	-3.6	0.9	0.5	n.a.
Debt Indicators					
Total public sector debt	18.5	21.6	19.1	18.6	18.1
Public sector debt over revenues	61.5	81	73.3	74.4	75.2
External debt (end of period)	8.3	8.7	7.6	10.3	10.9
Domestic debt (end of period)	10.2	12.9	10.8	8.3	7.2
External debt as percentage of exports of goods and services	15.8	14.5	17.3	18.9	22.2

Note: NFPS= Non-Financial Public Sector; (F) Forecasts numbers for 2013.

Source: International Monetary Fund Article IV Country Report and Central Bank of Suriname.

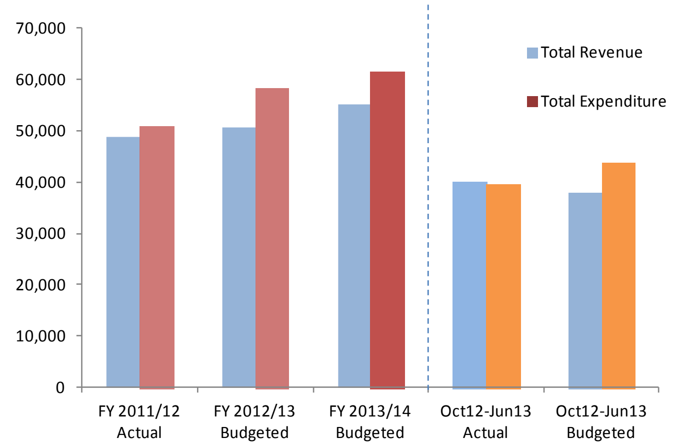
TRINIDAD AND TOBAGO

NEW BUDGET; OLD CHALLENGES

Recent Developments

The Government of the Republic of Trinidad and Tobago presented its 2013/14 Budget on September 9 to the Parliament. The budget proposes a fiscal deficit of 3.6 percent of the GDP in 2013/14, down from the 4.6 percent of GDP deficit included in 2012/13 budget. The improved figures reflect an increase of 8.5 percent in projected total revenues (the government expects TTD55 billion in revenues from which 43 percent will come from the energy sector). The expenditures are expected to increase 5.1 percent to TTD61.4 billion. The largest specific allocation was to education and training, representing 16 percent of total expenditures, while the national security allocation was second, at 11 percent.

Figure 1. Fiscal Revenues and Expenditures (TTD millions)



Source: Ministry of Finance of Trinidad and Tobago.

As with previous year's budget projections, the FY2013/14 is based on conservative energy prices: oil price of US$80 per barrel and natural gas price of US$2.75 per MMBTU. During the 2012/13 fiscal year, the government assumption of US$75 per barrel was below the market price given that WTI averaged US$94 and Henry Hub US$3.62.

The budget assumes that the economy of Trinidad and Tobago will grow 1.6 percent during 2013, accelerating to 2.5 percent in 2014. However, expected maintenance shutdowns of oil production facilities in the third quarter of 2013 turned out to be less disruptive than originally expected, so there might be a slight upward revision to the 2013 number. During the first quarter of 2013, the economy grew by 1.6 percent on an annual basis. The expansion in GDP was driven by the non-energy sector, which grew 2.5 percent, while the energy sector recorded a marginal increase of 0.5 percent.

Highlights

The Government of Trinidad and Tobago presented its 2013/14 Budget, which considers a fiscal deficit of 3.6 percent of GDP, down from the 4.6 percent of GDP included in the budget of 2012/13.

The new budget assumes that real growth will be 1.6 percent in 2013, accelerating to 2.5 percent in 2014. Although the budget continues to include the fuel subsidy to the general public, it reduces the benefit received by Caribbean Airlines Ltd for international flights.

Local government elections are scheduled for October 21, 2013.

Despite stated plans in the 2012/13 budget speech for a forthcoming strategy to significantly reduce fuel subsidies, no new policies were decided. However, the 2013/14 budget has some measures in this direction: The fuel subsidy that Caribbean Airlines Ltd (CAL) received was eliminated. CAL will no longer receive the government's subsidized fuel benefit (which represents at least TTD300 million in savings for the government), with the exception of the Trinidad–Tobago route. In addition, the budget includes a 25 percent increase in custom duties for new and foreign-used high-end cars and increased (up to TTD500,000) the penalties for illegal exporting of fuel.

The following are other initiatives in the budget:

- A limit to tax leakages: The Corporate Tax Act will be amended so that transfer or sale of assets between related companies reflects market prices.
- New amended legislation to encourage small- and medium-sized enterprises to list publicly.
- Allocation of 1 billion dollars to clear the value-added tax refund backlog. The finance minister also announced that refunds will now be paid no later than the statutory period of 60 days.
- More incentives for new energy investment, such as 100 percent allowance of exploration costs in the year incurred until 2017, reducing them thereafter.
- The government will build 20 primary schools, early childhood care centers, and a number of diagnostic centers on a public–private partnership basis with support from the IDB.
- There has been some headway in taxing commercial property. The new budget includes the introduction of

a "land and building tax." The first phase will consist of evaluating all industrial lands.

How Was the Fiscal Performance in 2012/13?

Estimates for the first three quarters of the 2012/13 fiscal year indicate that the deficit will be somewhat smaller than budgeted, a common pattern in recent years. The right panel of Figure 1 displays the latest data on the government accounts, from October 2012 to June 2013. The estimated actual surplus was TTD375 million, considerably over-performing the budget target that considered a deficit of TTD7.48 billion for that period. Total expenditure reached TTD39.67 billion, TTD4.14 billion lower than budgeted. This was mainly the result of lower-than-initially-expected capital expenditures and spending on goods and services. Actual revenues outperformed the budget assumptions, mostly as a result of higher-than-projected tax revenues. While oil revenues were roughly on target, non–oil revenues were at TTD19.4 billion, TTD1.6 billion above budget, which could be explained by the steady growth of the sector. Capital revenues also exceeded the 2012/13 targets. The government's initial estimate of the central government deficit in 2012/13 is 3.9 percent. Although the final estimate is likely to be lower than the preliminary number, capital expenditures have sped up compared with earlier years—a positive development.

Other Important Initiatives

The initial public offering of First Citizens Bank in mid-September was a success. As the largest initial public offering in the history of the Trinidad and Tobago Stock Exchange, it offered approximately TTD1.1 billion (US$171 million) in shares and reportedly was oversubscribed by TTD3 billion.

The Trinidad and Tobago Minister of Energy and his Venezuelan counterpart signed an agreement that establishes the functional and governance structure to oversee the development of the giant **Loran-Manatee gas field** that straddles the Trinidad and Tobago/Venezuela maritime border. This agreement had been delayed for many years.

Issues to Watch Out For

Prime Minister Kamla Persad-Bissessar announced that local government elections will be held on October 21. After the expiration of the term of local government councils on July 26, there was widespread public speculation that the government wanted to postpone local government elections.

IDB and Trinidad and Tobago

The Cabinet and the Government of Trinidad and Tobago approved a US$120 million Flood Alleviation and Drainage Programme for Port-of-Spain, which will be supported by the IDB. The plan has three components: drainage works for the critical areas flooded in Port-of-Spain at a cost of US$90 million, institutional strengthening of the Drainage Division at a cost of US$10 million, and creation of a linear park at a cost of US$20 million.

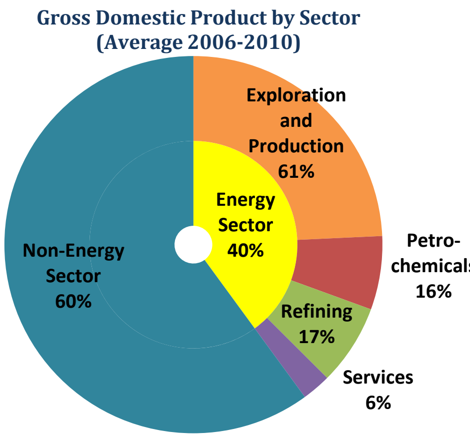
On August 27, the IDB hosted the Climate Change Workshop in Trinidad and Tobago. Discussions included the implementation of government's reforms in the area of climate change. This initiative was part of a US$80 million IDB loan that has assisted the Government of Trinidad and Tobago with the implementation of various international best practices in this area. The loan will help improve the country's response to climate change and ability to adapt and strengthen the institutions that manage climate change issues.

High-Frequency Macroeconomic Indicators	Last data	Period	Prior data	Period
Annual GDP growth (%)	1.6	Q1 2013	1.1	Q4 2012
Exports (12-month growth)	17.0	Q1 2013	-13.1	Q4 2012
Imports (12-month growth)	-3.0	Q1 2013	-4.7	Q4 2012
Private sector credit growth (%)	4.7	May-13	2.0	Dec-12
Inflation	5.1	Aug-13	3.8	Jul-13
Exchange rate (end of period)	6.42	Sep-13	6.44	Aug-13
Natural gas production (%, annual change)	3.6	Q1 2013	2.1	Q4 2012
Unemployment rate (%)	4.9	Jun-12	5.4	Mar-12

Introduction

Unlike in most Caribbean countries, in Trinidad and Tobago, energy has been an integral part of development for a long time. Oil and gas production account for 44 percent of GDP, 81 percent of the exports, and 54 percent of fiscal revenues in 2012. What is the economic impact of energy on the economy? We consider two perspectives: the macroeconomic impact through the fiscal and external accounts and the role energy plays in the current and future development of the country. Despite much potential for the country to become more competitive in the global marketplace, productivity and competitiveness will suffer until petroleum revenue is used as an investment in the future rather than as a supplement to current consumption.

Figure 2. Macroeconomic Impact of Oil on the Economy



Source: Central Statistical Office.

Trinidad and Tobago has made important strides in diversifying its economy by evolving from a purely petroleum-producing state over the past 15–20 years. In the energy sector, more than 52 percent of output relates to oil and gas production, but a hefty amount relates to petrochemical production (which use natural gas as their main input), as well as refining, and energy services (Figure 2). This attests to its concerted strategy for many years to create value added from hydrocarbons production. As subsequently discussed, the energy services sector is a thriving sector that exports its services all over the world.

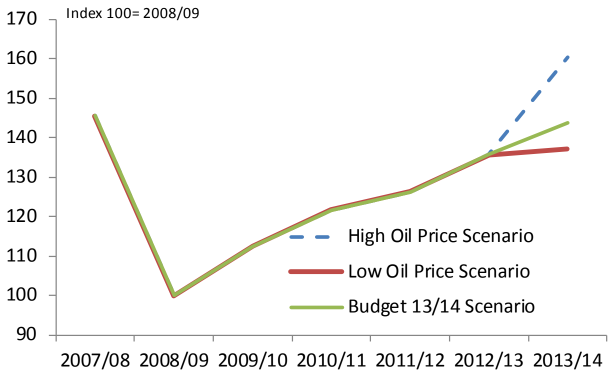
Despite the importance of energy in exports, fiscal revenue, and economic activity, for various reasons, the short-term volatility that typically comes from fluctuating international oil prices is somewhat cushioned. Regarding trade, oil and gas constitute the majority of exports, but they are diversified geographically: About 47 percent of energy exports are destined to the United States, but this share has been falling as new gas markets have been found. The rest go to a diversified set of partners. Liquefied natural gas—with prices increasingly delinked from oil prices—constitutes 32 percent of exports. Moreover, Trinidad and Tobago exports light crude oil and imports heavy oil for local consumption. Thus, about 40 percent of imports will depend on the price of oil, counteracting the effect of higher export prices. Regarding the fiscal accounts, although nearly 60 percent of tax revenue comes from the energy sector because a large part is related to the income tax from oil and gas, it might not always have a high correlation with oil prices. This is because operating expenditures can also rise with high prices, thus dampening profitability. Regarding the impact on price volatility, because electricity and transportation fuel are heavily subsidized at a mostly constant rate, the effect of rising world oil and gas prices on consumer price inflation is minimal.

Still, higher prices under normal conditions can produce an important windfall for the current account and fiscal revenues: A simulation found that increases of oil prices from US$100 to US$130/barrel in 2014 could lead to a current account surplus of 16.3 percent of GDP (compared with 8.6 percent in the baseline). In turn, tax revenues would be 11.6 percent higher compared with the baseline projection over the next 2 years (Figure 3).

The significant contribution of fiscal revenues to the Heritage Stabilization Fund (HSF) also helps to dampen fluctuations from year to year on the fiscal balance. This happens for two reasons. First, the HSF rules state that the savings (withdrawal) is triggered when actual energy revenue exceeds (falls below) budgeted energy revenue by at least 10 percent. This process ensures that additional revenues are set aside, but also cushions the effect of fluctuating prices on the fiscal stance. Moreover, the HSF de facto operates mostly as a savings fund: Over the past few years, the government has postulated a deliberately conservative oil and gas price assumption for budget purposes, which means that actual revenues have systematically exceed budgeted revenues.[1]

[1] Some HSF rules will change in 2014 on the basis of recommendations of the special HSF Review Committee. For a thorough discussion of the HSF rules, see International Monetary Fund (2012), "Trinidad and Tobago: Selected Issues."

Figure 3. Impact of Oil Price Changes on Total Central Government Revenue



Source: Central Bank of Trinidad and Tobago; Ministry of Finance; and author's calculation.

Long-Term Impact: Savings and Production

Over a longer period (20–40 years), Trinidad and Tobago's economic activity has fluctuated more through mega-cycles related to commodity prices. In this regard, in recent years, the government has mostly maintained a policy stance conducive to reducing dependence on hydrocarbons through two strategies: saving hydrocarbon wealth and supporting the development of energy and non-energy production.

Long-term savings out of energy wealth have increased, although some say they could be higher. The HSF has accumulated total assets valued at US$4.8 billion (20 percent of GDP) since its inception in 2007 to end-December 2012. This is a speedy accumulation. There is a reluctance to withdraw and a tendency to save above the minimum every period into the Fund despite consistent fiscal deficits. Some have argued that the savings rate into the HSF is too high, because the country needs to set the stage for growth by investing in badly-needed infrastructure now, rather than saving for future generations. However, implementation capacity in the public sector is weak. Because funds for investment cannot be used efficiently, there is the temptation to use them for current expenditures. If this is right, until hydrocarbon revenues can be efficiently invested, it might be better to save them in the fund, pay down debt, or keep them "on the ground" rather than ramp up production.

Looking ahead, the government is preparing more for the days when easily flowing hydrocarbon revenue subsides. Production of oil and gas has suffered in recent years, as existing fields have matured and a prolonged maintenance period over the past 3–4 years dampened output considerably. According to the most recent Ryder-Scott audit, Trinidad and Tobago's proven gas reserves in 2012 fell by 1.1 percent, and the country's reserves-to-production ratio is just under 12 years (8 for oil). These drop in reserves happened because of the natural fall-off, and because exploration investment has slowed down a bit. It would require higher and consistent investments compared with the 10-year period before 2007 just to maintain production at current levels, in exploration, development, and output. So far, Trinidad and Tobago has relied on foreign direct investment to achieve those levels. Most upstream drilling is expected to be offshore in 2013–2023.

Over the past 2–3 years, the government significantly reformed its hydrocarbon regime, with a view to attracting new investment in more mature or unconventional fields. Trinidad and Tobago's taxes are high by international standards, but it has many advantages to other jurisdictions, which led to uninterrupted presence of established oil companies: high-skilled energy services companies, a stable political and legal regime, and relatively reasonable negotiation terms. Nonetheless, the private sector has called for more action by the government to update the fiscal terms and improve competitiveness. They cite that in 2011, Trinidad and Tobago was ranked 98th out of 103 countries by Wood McKenzie in the *Fiscal Terms Index Report* in terms of fiscal competitiveness. As a result, tax rates and the terms of production-sharing contracts were simplified in 2012, the supplemental petroleum tax rate decreased for some investments, while investment tax credits expanded.[2] These efforts led to a fairly successful bid round for blocks in 2012. They are hoping that investment and production growth should improve in the medium-term.

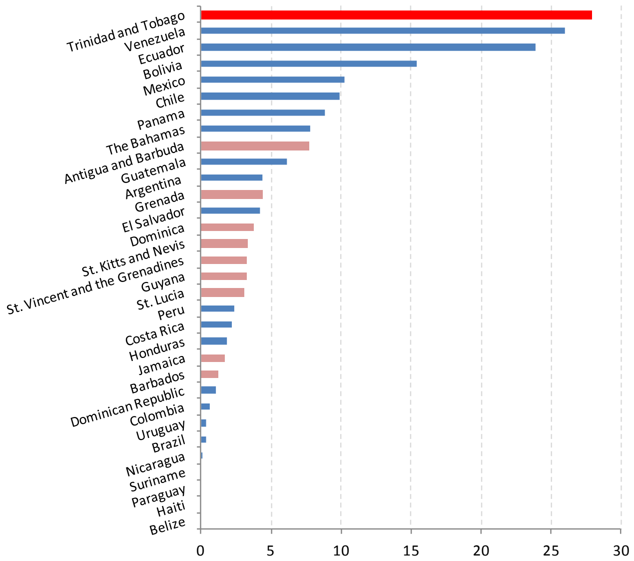
Promoting Related Industries

The development of the petrochemical and metals industry, as well as other manufacturing, has helped to counterbalance its dependence on the revenues from oil and gas. The availability of subsidized electricity and fuel has given Trinidad and Tobago manufacturing a comparative advantage. One of the most dynamic sectors in Trinidad and Tobago is the energy services sector, which supplies professional services and specific equipment along the production chain. The sector has become even more global in recent years, and they have established an excellent reputation around the world: Trinidad and Tobago provides energy services and training not only to Suriname and

[2] See Mercer-Blackman (2012) for a discussion of the tax regime in Trinidad and Tobago in an international context.

Guyana, but also to Africa, South America, and even the United States, which are serviced by the larger energy services companies. Trinidad and Tobago has also developed biofuels and other renewable energy equipment, as well as carbon-capture technologies. The government has worked alongside mostly the private sector to ensure that these industries expand, including through the promotion of energy clusters. Still, the private sector has solicited specific policies to help in this effort. For example, a public-private coordinating agency could aggressively promote energy-related exports and investments, as well as the development of clear local-content policies.[3] On the non-energy front, the Ministry of Planning has also developed a strategy to make key economic sectors more competitive.

Figure 4: Post-Tax Subsidies for Petroleum Products and Natural Gas in Latin America and the Caribbean Countries, 2011 (in percentage of government revenues)



Source: International Monetary Fund (2013).

Weaning Itself Out of Hydrocarbons Will Only Come Through a Reduction of Subsidies

All of the aforementioned polices reflect important efforts to save oil and gas wealth and increase final value, but their success is significantly hampered by the high and rising resources from oil wealth that go toward transfers and subsidies. Government spending on transfers and subsidies was more than 17 percent of GDP in 2012/13—about 100 percent of energy revenue. Most of it goes to inefficient public enterprises, more than 130 overlapping social programs, and the fuel and electricity subsidy (there is few detailed data on the use of these funds). Figure 4 shows that Trinidad and Tobago has the highest share of fuel and natural gas subsides over fiscal revenue in Latin America and the Caribbean. Growing evidence suggests that these generous expenditures have negatively affected labor productivity and the development of a non-energy business sector, as there are few incentives to establish competitive enterprises.

The fuel subsidy itself has fluctuated in recent years and created cash-flow problems. Trinidad and Tobago's diesel fuel at the tank costs about US$0.25 per liter (less than US$1 per gallon, compared with more than US$3.50 in the United States). This is one of the lowest levels in the world, and it compares unfavorably to the United States and neighboring Caribbean countries. The fuel subsidy component (the difference between the market price to distributors and the price at the pump) is funded by a contribution by oil companies to the so-called Petroleum Production Levy (about 4 percent of petroleum output) and augmented by a contribution from the budget,[4] particularly when global oil prices are high. Still, because the budget typically has a working assumption of relatively low petroleum prices, a lag in payments appeared over the years. The Ministry of Finance has begun to tackle this issue, starting with an accounting of the problem and reducing of back payments, but still with a balance of more than TTD5 billion. This solution will give some relief to the public oil company Petrotrin. Petrotrin investments in the recent past have been marred by a lack of cash flow because the government was not fully compensating them for the cost of subsidies. Added to this is the low oil and gas output in recent years as a result of prolonged maintenance shutdowns, which also might have affected the payments to energy services companies and suppliers of Petrotrin. The transport fuel subsidy is also projected to be more than TTD4.3 billion in the current financial year (3 percent of GDP).

Independent of cash-flow issues, the subsidies undermine efforts to improve congestion, develop an energy-efficient culture, and tend to be regressive. Unaddressed complaints of increasing traffic congestion in Port of Spain and office buildings with lights on at night reflect a culture that is

[3] Particularly the Energy Chamber of Trinidad and Tobago. Specific proposals were offered at the Trinidad and Tobago chapter of the Caribbean Growth Forum. https://sites.google.com/site/cgftrinidadtobago/documents

[4] When actual oil prices are substantially higher than those assumed in the budget, the government has to contribute more than budgeted.

unconcerned with energy efficiency. Carbon dioxide emissions have doubled in the past decade, increasing by more than 25 million metric tons of carbon dioxide between 2000 and 2010. Moreover, international studies show that these subsidies tend to benefit the rich disproportionately, and evidence suggests that it is also true in Trinidad and Tobago (see Ram, 2012). Efforts to develop mass transit have lacked significant traction.

A program to dismantle fuel subsidies has to be comprehensive, but there are good examples internationally. Studies and cases have shown that most other countries that have dismantled subsidies have improved fiscal performance (e.g., Philippines, Iran, and Peru). Money saved from fuel/power subsidies could be used to pay for mass transportation infrastructure. There will also be a real incentive to develop innovative energy-saving technologies. Any program that dismantled subsidies did so after fully assessing the costs and benefits and distributional consequences for the population. The program should be implemented gradually. A good accompanying advertising and awareness campaign would include a transparent explanation of the use of the money saved.

Recent efforts are commendable but have not produced substantial fiscal savings. The subsidy on premium diesel was removed on October 2012, and Caribbean Airlines will no longer receive a fuel subsidy as of October 2013. A recent initiative in the 2013/14 budget grants a tax credit of 100 percent of the cost of conversion of the vehicle to run on cheaper and cleaner compressed natural gas. Moreover, the National Gas Company will construct more than 22 new compressed natural gas fueling stations and convert more than 17,500 vehicles over a 5-year period. However, there will be little incentive to switch to compressed natural gas vehicles unless the alternative of using cheap fuel and gasoline is eliminated.

Conclusion

Much has been written about the resource curse of commodity exporters, but examples in theory and practice offer how countries can offset the possibly negative effect through various policies, particularly the creation of sovereign wealth funds. Trinidad and Tobago has taken some concrete steps in most aspects, but the largest glaring challenge is the difficulty for any government in the recent past to eliminate fuel subsidies.

References

International Monetary Fund. 2012. “Trinidad and Tobago: Selected Issues,” IMF Country Report No. 12/128, March 27, 2012, International Monetary Fund, Washington, DC.

International Monetary Fund. 2013. Policy Note. "Energy Subsidy Reform: Lessons and Implications," International Monetary Fund, Washington, DC.

Mercer-Blackman, Valerie. 2012. "Transitioning the Tax System to Take Advantage of the Natural Gas-Rich Economy in Trinidad and Tobago.” Mimeo, Inter-American Development Bank, Washington, DC.

Ram, Justin. 2012. “Resource Revenues and Optimal Expenditure.” Revenue Management in Hydrocarbon Economies Conference presentation, Port of Spain Trinidad and Tobago.

Trinidad and Tobago: Selected Indicators

	2009	2010	2011	2012	2013 (F)
(Annual percentage changes, unless otherwise indicated)					
Real Sector					
Real GDP	-4.4	0.2	-2.6	0.2	1.6
Nominal GDP	-30.8	8.3	14.5	7.0	5.5
Inflation (end of period)	1.3	13.4	5.3	7.2	4.0
External Sector					
Exports of goods and services*	-50.5	21.9	33.0	-13.1	3.1
of which: oil and natural gas*	-51.8	18.8	34.7	-16.8	n.a.
Imports of goods and services*	-27.1	-6.8	46.2	-4.7	5.4
Current account (percentage of GDP)	8.5	20.2	12.3	3.8	8.8
FDI (percentage of GDP)	3.7	2.7	3.3	3.5	n.a.
(In percentage of GDP, unless otherwise indicated, on a fiscal year basis)					
Central Government**					
Revenue and grants	29.0	34.1	32.6	32.0	30.4
of which: energy revenues	14.3	17.6	18.8	17.4	16.1
Current expenditure	27.7	28.9	28.6	28.7	30.5
Capital expenditure and net lending	6.3	5.0	4.8	4.5	4.5
Primary balance	-2.4	2.7	1.2	0.6	-2.3
Overall balance	-5.0	0.1	-0.8	-1.2	-4.6
Consolidate NFPS balance (incl. CLICO)	-9.0	-3.9	0.0	-0.3	-1.2
Debt Indicators					
Public sector debt^	30.6	35.5	33.4	39.3	33.9
Public sector debt over revenues	105.5	104.1	102.5	122.8	111.5
External public debt (end of period)	7.7	6.7	6.4	6.7	7.2
External debt service as percentage of exports of goods and services	4.4	1.0	1.2	1	n.a

Notes: * refers to annual change in value (USD Million); ** 2013 refers to October 2012-September 2013; ^ Non Financial Public Sector Debt. Excludes debt issued for sterilization and since 2012 it includes debt increase due to issue to CLICO debt holders. FDI= foreign direct investment; NFPS= Non-Financial Public Sector. (F) Forecasts numbers for 2013.

Source: Central Bank of Trinidad and Tobago, International Monetary Fund 2013 Article IV Press Release, IMF World Economic Outlook, April 2013.

OECS Overview

The economies of the OECS continue to display signs of recession overall, but the outlook is improving. Output contracted 0.2 percent in 2012—the fourth consecutive year of overall economic contraction—and further declines were recorded in the first quarter of 2013.

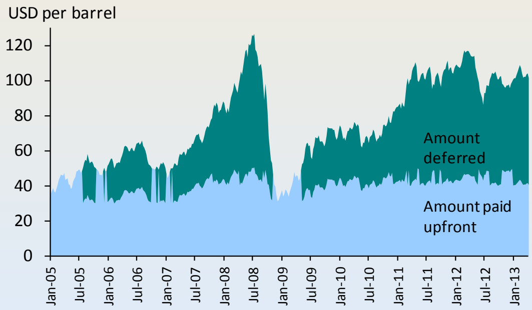
On August 12, 2013, the Eastern Caribbean Central Bank (ECCB) announced that it had assumed control of the two indigenous banks in Anguilla: the Caribbean Commercial Bank and the National Bank of Anguilla. The governor of the ECCB cited non-performing loan levels in excess of ECCB guidelines, resulting in undercapitalization at both banks. The ECCB intends to maintain control of the two banks for 6 months initially, and it will continue operations with the technical assistance and support of the World Bank, the International Monetary Fund, and the British Government.

The ECCB governor subsequently announced that the Eastern Caribbean suffers from "banking overload"; roughly 40 banks are registered in the OECS, prompting the ECCB's Monetary Council to consider a proposal to merge all indigenous banks across the OECS. Any such merger could have implications for the financial sector that are not limited to the level of competition.

Issues to Watch Out For—PetroCaribe's Future

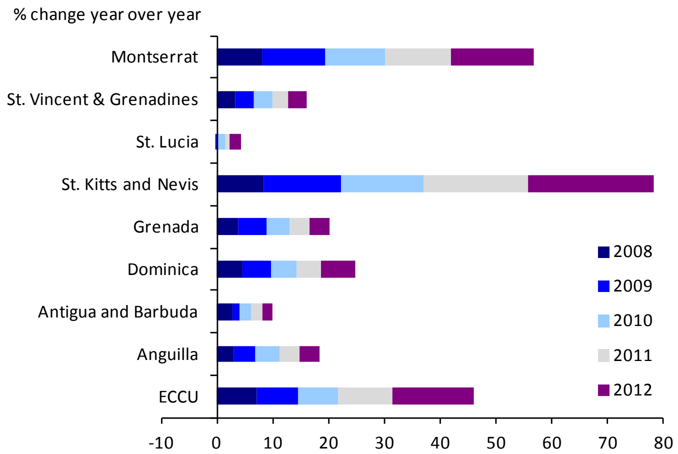
A possible new direction in PetroCaribe's future could also impact the Eastern Caribbean. St. Lucia has recently begun to receive shipments of fuel from Venezuela under PetroCaribe, amid announcements by President Maduro that the interest rates on deferred payments would double to 2 percent. Figure 2 shows the price movements in Venezuelan crude and the proportion deferred. In addition, some members allege that they are not receiving the agreed quota of fuel, forcing them to purchase fuel on the open market.

Figure 2. Venezuela Crude Prices: PetroCaribe



Source: Bloomberg, PetroCaribe, RBC Financial (Caribbean) Limited.

Figure 1. Growth in Import Cover: ECCU



Note: ECCU = Eastern Caribbean Currency Union.
Source: Eastern Caribbean Central Bank, RBC Financial (Caribbean) Limited.

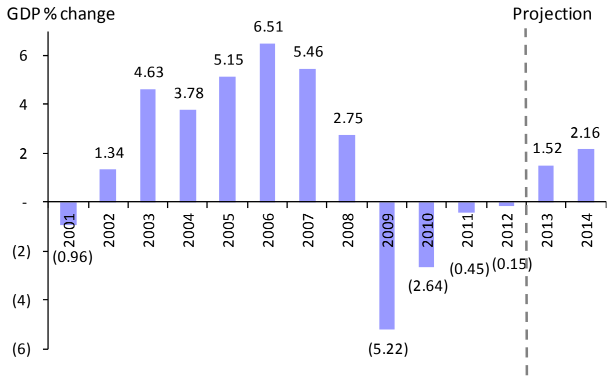
Results of the ECCB's ***Business Outlook Survey*** for July–December 2013 once again reveal that in each member state, economic conditions faced by businesses deteriorated in the first half of 2013 compared with the same period in 2012. However, businesses expect economic conditions to improve in the second half of 2013. Given available data from 2009 onward, results of the survey consistently show that business conditions deteriorated or were worse than expected. In some cases, further deterioration was expected but, at times, businesses have expressed optimism that the environment will improve in the months ahead.

The ECCB's 2012/13 Annual Report highlights the robust backing of the XCD with foreign reserves at an average rate of 96 percent during 2012 versus a prudential benchmark of 80 percent and a statutory minimum of 60 percent. Figure 1 shows positive growth in import cover across the Eastern Caribbean Currency Union throughout the post-crisis period; this growth is not seen elsewhere in the Caribbean.

According to the annual report, overall Eastern Caribbean growth is expected to reach 1.5 percent in 2013 and accelerate into 2014, versus a contraction of 0.2 percent in 2012. The new Eastern Caribbean Currency Union Chairman, Dr. Kenny Anthony, recently reiterated the 2013 growth forecast of 1.5 percent, which is consistent with the ECCB's projections, as reflected in Figure 3. These growth projections assume that an improved external economic environment will positively affect

the tourism and construction sectors in particular. ECCB data show that the 2013 growth projection assumes positive growth in every sector of every economy—a scenario that is not seen in the historical data.

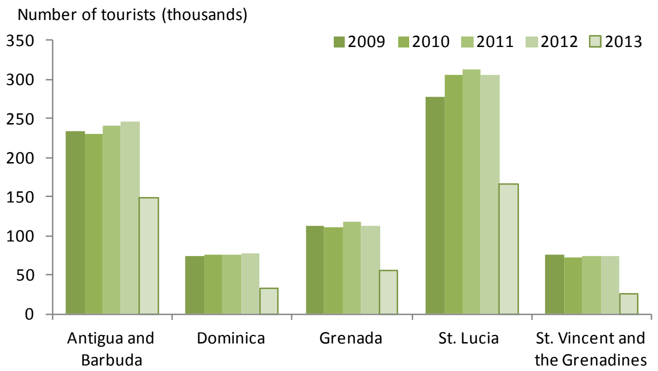
Figure 3. Real GDP Growth Rates: ECCU



Note: ECCU = Eastern Caribbean Currency Union.
Source: Eastern Caribbean Central Bank, RBC Financial (Caribbean) Limited.

The ECCB's Economic and Financial Review for March 2013 estimates that there was no growth in the first quarter of 2013 year-over-year[1]**.** This is based mainly on weak construction and tourism activity not fully mitigated by higher output in the agriculture and manufacturing sectors. Visitor arrivals overall fell by 10.2 percent in the first quarter of 2013, year-over-year. Lower overall fiscal deficits, reduced debt stocks, a smaller merchandise trade deficit, and overall price deflation of 0.3 percent were recorded in the first quarter of 2013, year-over-year. Subsequent data released by the ECCB showed annual inflation for the Eastern Caribbean Currency Union overall reaching 1.44 percent in June 2013.

Figure 4. Stopover Tourist Arrivals: ECCU



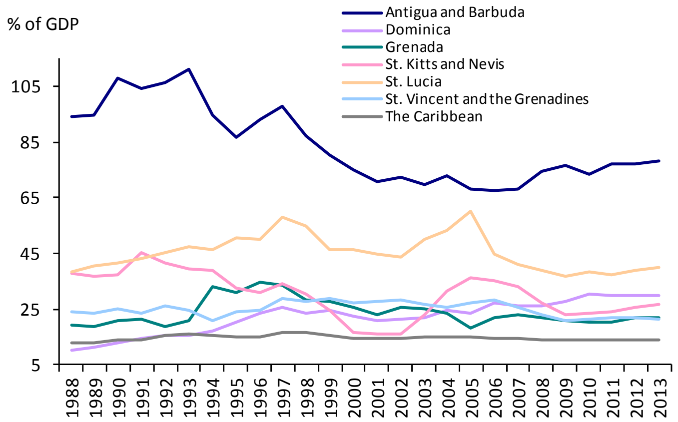
Note: ECCU = Eastern Caribbean Currency Union.
Source: Caribbean Tourism Organization, RBC Financial (Caribbean) Limited.

[1] Refers to growth compared to the same period the previous year.

Trends in Tourism

Figure 4 depicts the Eastern Caribbean's weak performance in the tourism sector since the crisis period. This is of particular concern given the relatively high level of direct dependence on this industry: more than 85 percent (versus a Caribbean-wide average of less than 15 percent of GDP), as shown in Figure 5.

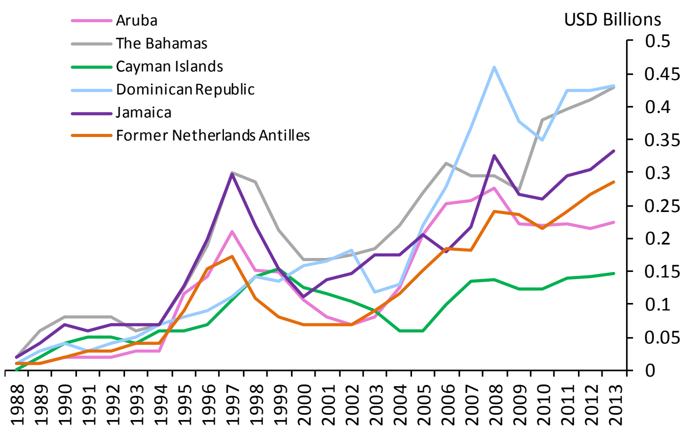
Figure 5. Total Tourism Contributions to GDP: Eastern Caribbean



Source: Caribbean Tourism Organization, RBC Financial (Caribbean) Limited.

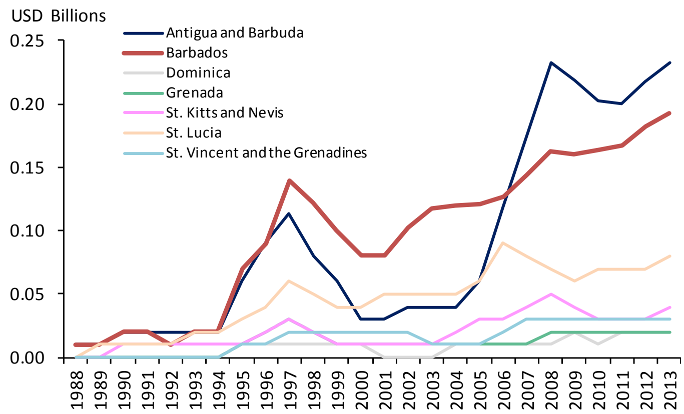
The Eastern Caribbean tourism industry faces many challenges, which have translated into weaker performance relative to other Caribbean tourism-dependent nations. One challenge is the level of investment in the tourism sector; although rising in some instances, the level is well below that of some neighboring territories, as shown in Figures 6 and 7. Low investment in tourism is a direct consequence of limited fiscal flexibility in the Eastern Caribbean and of falling levels of foreign direct investment.

Figure 6. Tourism-Related Capital Investment: Select Caribbean Countries



Source: Caribbean Tourism Organization, RBC Financial (Caribbean) Limited.

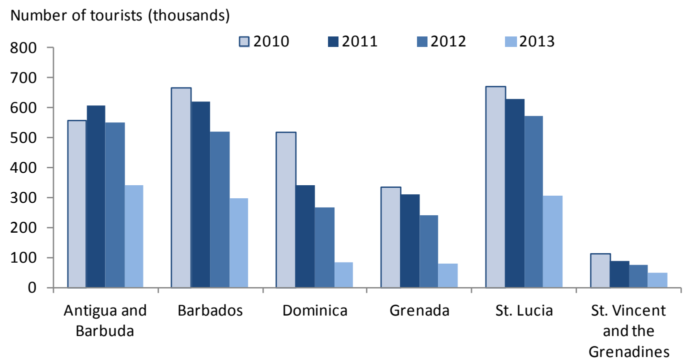
Figure 7. Tourism-Related Capital Investment: ECCU and Barbados



Source: Caribbean Tourism Organization, RBC Financial (Caribbean) Limited.

Other endogenous constraints such as limited airlift, uncompetitive pricing, high crime rate, and the quality of products and services in the hospitality industry, are widely discussed as being major contributors to weak tourism activity across the Eastern Caribbean. The cruise tourism subsector is less affected by some of these factors but has also experienced a noticeable decline in the Eastern Caribbean, as seen in Figure 8. However, the subsector has been stable and has improved in most other Caribbean territories.

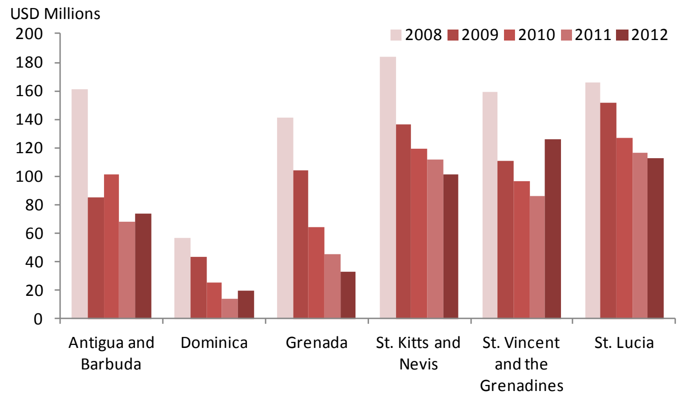
Figure 8. Cruise Tourists: Eastern Caribbean Currency Union



Source: Caribbean Tourism Organization, RBC Financial (Caribbean) Limited.

The foreign direct investment report from the United Nations, *Economic Commission for Latin America and the Caribbean*, shows persistently low and declining levels of foreign direct investment in the Eastern Caribbean over the past 4 years, contrary to the levels in most other Caribbean nations, as seen in Figure 9.

Figure 9. Foreign Direct Investment: Eastern Caribbean Currency Union



Source: Economic Commission for Latin America and the Caribbean, RBC Financial (Caribbean) Limited.

ANTIGUA AND BARBUDA

The ECCB is uncertain whether output grew or declined in Antigua and Barbuda for the first quarter of 2013, as revealed in their Economic and Financial Review for March 2013. The tourism sector suggests signs of decline according to the ECCB. Among Eastern Caribbean countries, it is the most highly dependent on the tourism sector, with the share of tourism in

total output of roughly 80 percent of GDP. According to the Caribbean Tourism Organization, stopover arrivals declined by 5.4 percent from January to July 2013 (year-over-year), as fewer tourists arrived from all source markets. Canada was the exception: It showed higher stopover arrivals by 28.6 percent. Between January and April 2013, there was a 4.9 percent decline in cruise visitor arrivals.

Regarding other macro indicators, annual inflation slipped to 0.7 percent based partly on weaker consumption, and the trade deficit reached an estimated 43 percent of GDP for the 12 months to June 2013. While a fiscal surplus of XCD26.3 million was recorded for the first quarter of 2013 (versus a deficit of XCD3.8 million in the first quarter of 2012), by June 2013 (year-over-year), the fiscal balance deteriorated to a deficit equivalent to about 2.3 percent of GDP.

DOMINICA

The ECCB's Economic and Financial Review for March 2013 reports a decline in economic activity in the first quarter of 2013, based mainly on contraction in the tourism and agriculture sectors. The banana industry was affected by crop disease and adverse weather conditions. Tourism, which accounts for roughly 30 percent of GDP, was affected by a 3.2 percent decline in stopover arrivals between January and May 2013 (year-over-year), driven mainly by fewer arrivals from the United States and "other" source markets, according to the Caribbean Tourism Organization. Cruise ship tourist arrivals declined 28.1 percent from January to July 2013, year-over-year.

Twelve-month inflation of 0.8 percent was recorded for June 2013 (year-over-year), and a trade deficit of 32 percent of GDP was realized. In March 2013, there was an overall fiscal surplus of XCD2.3 million (versus a deficit of XCD29 million 1 year earlier). By June 2013, however, the fiscal situation deteriorated, and a deficit of about 8.8 percent of GDP was recorded (year-over-year).

GRENADA

Grenada's economy contracted during the first quarter of 2013 year-over-year, according to the ECCB's Economic and Financial Review for March 2013. The construction and manufacturing sectors declined, partly based on reduced demand, while output from the agriculture sector grew. Stopover arrivals fell by 1.6 percent from January to June 2013 year-over-year, on smaller numbers coming from Europe and other markets, according to the Caribbean Tourism Organization. There was also a 21.8 percent contraction in the number of cruise ship tourist arrivals over the same period. Grenada depends on the tourism sector for roughly 20 percent of its GDP.

Inflation stood at 1 percent in June 2013 (year-over-year), and the trade deficit widened to roughly 39 percent of GDP. The primary fiscal deficit grew dramatically to XCD54.39 million or 2.5 percent of GDP in June 2013 (year-over-year).

ST. KITTS AND NEVIS

The economy of St. Kitts and Nevis contracted during the first quarter of 2013 (year-over-year), according to the ECCB's Economic and Financial Review for March 2013. The tourism, construction, and manufacturing sectors registered declines in output, based partly on the effects of reduced fiscal spending. Both stopover and cruise tourist arrivals are estimated to have declined, despite increased airlift during the first quarter. St. Kitts depends on tourism for roughly 26 percent of its GDP.

For the 12 months to June 2013, inflation of 0.2 percent was recorded. Over the same period, the trade deficit widened to roughly 24 percent of GDP. A fiscal surplus of XCD273.79 million or about 13.8 percent of GDP was realized for the 12 months to June 2013.

In July 2013, the International Monetary Fund approved a disbursement of USD6.45 million under the 36-month standby arrangement, and its press release highlighted the signs of economic recovery emerging in St. Kitts and Nevis.

ST. LUCIA

During the first quarter of 2013, the economy of St. Lucia expanded on a year-over-year basis, according to the ECCB's March 2013 Economic and Financial Review. The ECCB estimates that the agriculture, construction, manufacturing, and tourism sectors expanded to varying degrees during the first quarter, year-over-year. The Caribbean Tourism Organization reported that from January to June 2013, there was a 4.8 percent increase in stopover arrivals, mainly from the United States and other markets, but the number of cruise ship passengers declined by 2 percent. St. Lucia derives almost 40 percent of its GDP from the tourism sector.

For the 12 months to June 2013, inflation of 2.7 percent was recorded, along with a wider trade deficit of about 35 percent of GDP. The overall fiscal deficit widened to XCD243.72 million (or roughly 7.4 percent of GDP) in June 2013 (year-over-year), driving total public sector disbursed outstanding debt higher by 0.9 percent between December 2012 and March 2013.

ST. VINCENT AND THE GRENADINES

Marginal economic expansion is estimated to have occurred during the first quarter of 2013 year-over-year, according to the ECCB's March 2013 Economic and Financial Review. The construction, agriculture, manufacturing, wholesale, and retail trade sectors all expanded, while the tourism sector is estimated to have declined. Tourism is estimated to account for roughly 21 percent of GDP in St. Vincent and the Grenadines. According to the Caribbean Tourism Organization, there was a 10.1 percent contraction in stopover arrivals from January to April—the most significant decline across the region for 2013 thus far—based on fewer arrivals from all source markets. Conversely, there was a 13.2 percent increase in cruise passenger arrivals over the same period.

Annual inflation of 0.3 percent was registered to June 2013 (year-over-year), while the trade deficit reached about 45 percent of GDP, and the overall fiscal deficit widened to about 2.1 percent of GDP.

The OECS selected indicators table below summarizes the main macroeconomic indicators. Despite very low inflation, of concern are the low GDP growth, high external deficits, and high debt-to-GDP ratios greater than 70%.

Selected Indicators: Eastern Caribbean States

	Population (thousands)	Nominal GDP (USD millions)	Real GDP Change (%)	Public Sector Debt (% of GDP)	Fiscal Balance (% of GDP)	Current Account (% of GDP)	Annual Inflation June 2013 (%)
Antigua and Barbuda	88	1176	1.6	89.2	-1.2	-12.8	0.7
Dominica	71	497	0.4	72.2	-3.8	-13.5	0.8
Grenada	105	790	-0.8	112.6	-4.7	-23.0	1.0
St. Kitts and Nevis	57	734	-0.9	89.3	5.2	-13.5	0.2
St. Lucia	168	1220	-0.4	78.4	-11.9	-19.1	2.7
St. Vincent and the Grenadines	110	712	0.5	70.2	-2.7	-27.9	0.3

Note: Values refers to 2012.

Source: RBC Financial (Caribbean) Limited.

The Caribbean Quarterly Bulletin

REGIONAL SUPPLEMENT: IN THE CARIBBEAN, ENERGY MATTERS!

Introduction

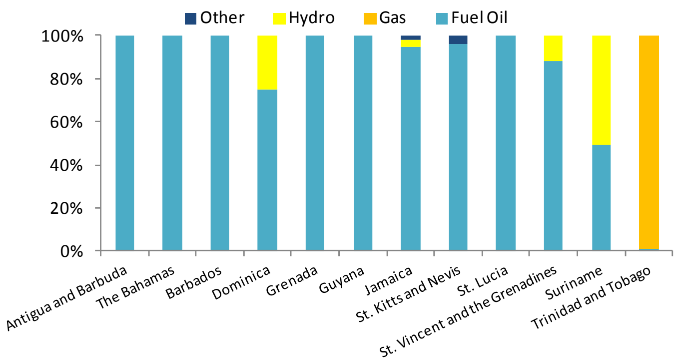
Energy costs and their variability, as well as the reliability of supply, are key factors that contribute to macroeconomic instability in the Caribbean States, most of which are highly dependent on fossil fuels. This negatively impacts the fiscal and balance of payments accounts. In addition, high and variable energy prices hinder private sector activities and contribute to decreased competitiveness, which, in turn reduces potential economic growth. Moreover, the possible hardening of PetroCaribe's preferential financing arrangements will aggravate these problems given that some countries might be forced to turn more often to the more expensive spot oil market.

However, technological changes in the production and distribution of liquefied natural gas (LNG) and compressed natural gas (CNG), among other alternatives, provide an opportunity for countries to explore other viable alternative energy sources, including renewables. This supplement explores such possibilities.

Existing Energy Structure

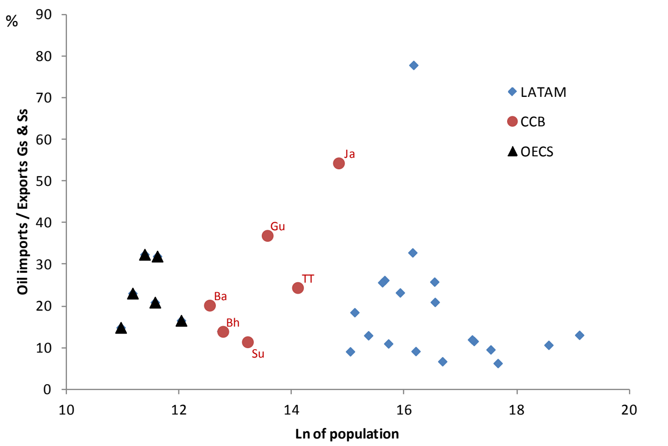
In most countries, fuel oil is the sole source used as input in electricity production (see Figure 1). The exceptions are Trinidad and Tobago, which uses its own natural gas almost exclusively (99 percent), and others, which use hydro: Suriname (50 percent), Dominica (25 percent), and St. Vincent and the Grenadines (12 percent). The dependency on fuel oil implies that a large proportion of the countries' export earnings are spent on fuel imports. For example, Jamaica spends 54 percent and Guyana spends 37 percent (see Figure 2). This high dependence on fuel imports seems to be a greater problem for small countries, as compared to Latin America: Figure 2 shows the population size against share of oil imports over exports for the six Caribbean countries (Bahamas, Barbados, Jamaica, Guyana, Suriname, and Trinidad and Tobago [labeled CCB]), the Organisation of Eastern Caribbean States countries and Latin American countries.

Figure 1. Installed Capacity, by Source



Source: Annual reports and websites of utilities in the region.

Figure 2. Fuel Oil Imports as a Percentage of Goods and Services

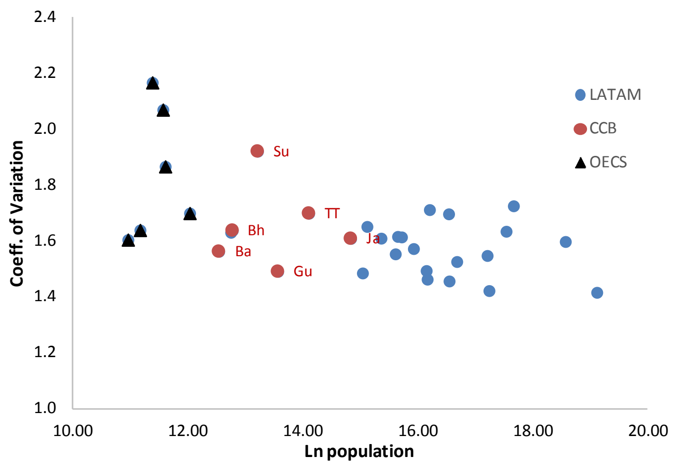


Source: World Economic Outlook, April 2013; Balance of Payments Statistics International Monetary Fund.

Such dependency subjects the countries to the vagaries of the price of fuel oil and international price volatility. This intensifies the vulnerabilities that come from being small (see Yepez-Garcia, Ariel and Dana, 2012). In Figure 3, the coefficient of variation of oil imports (plotted against size) illustrate this volatility. Again, it suggests that the smaller the economy (i.e., those of the Caribbean), the larger the problem.

REGIONAL SUPPLEMENT: IN THE CARIBBEAN, ENERGY MATTERS!

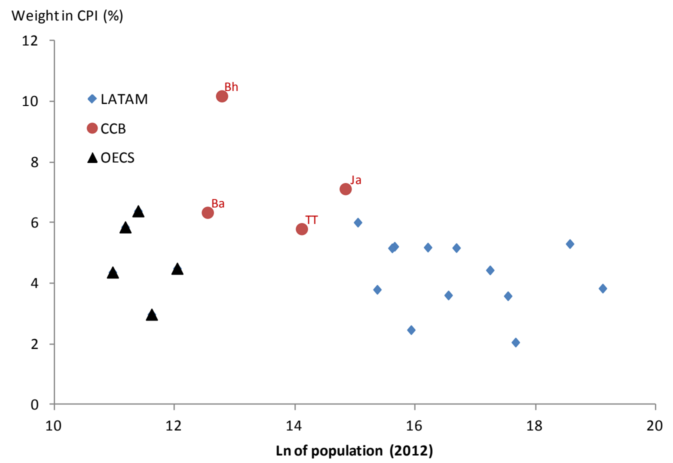
Figure 3. Oil Shocks Through Fuel Oil Imports (Volatility 2001–2012)



Source: World Economic Outlook April 2013, International Monetary Fund.

Energy is also a major contributor to household expenditure in comparison with other expenditures. Moreover, given that most countries allow full pass-through of international prices to electricity prices, the variability of energy prices can also complicate household planning. Figure 4 shows the importance of energy for household expenditure, where we use as a proxy the energy weights in the consumer price index. In general, the smaller the economy, the higher the proportion of expenditure on energy.

Figure 4. Fuel and Electricity Weights in the Consumer Price Index, Different Years



Source: Statistics Offices and Eastern Caribbean Central Bank.

For some countries (particularly Jamaica, Guyana, St. Vincent and the Grenadines, and Grenada), these problems exist despite favorable terms on oil imports from PetroCaribe. Beneficiary countries can receive long-term financing (15–25 years) at below-market interest rates (1–2 percent) for 25–60 percent of their purchases of petroleum. Beneficiary countries may opt to pay for these purchases and service the related long-term loans in-kind (e.g., exporting food products to Venezuela) or in cash.

Beneficiary countries have become increasingly dependent on PetroCaribe. On average, 16 percent of the imports of petroleum products of these countries are under a PetroCaribe arrangement; the share is above 60 percent for St. Vincent and the Grenadines. The contribution of these arrangements to beneficiaries' external financing is sizeable. The contribution is particularly important in Jamaica and Guyana, where it reached 4–6 percent of GDP in 2011.[1]

Thus, the structural downsides derived from the existing energy matrices and the dependance on PetroCaribe bode ill for these countries, particularly under a scenario of an abrupt interruption of this arrangement.

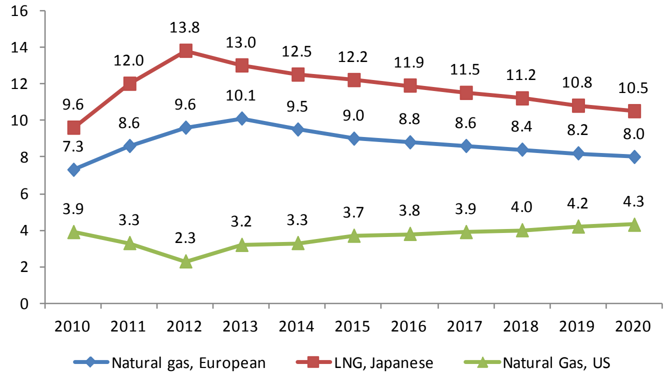
What are the Alternatives?

A comprehensive strategy is required to help diversify the countries away from the existing oil-based energy matrix. The most likely alternative energy sources for power are liquefied natural gas (LNG) and renewables. Moreover, an improvement of energy efficiency in both production and end use is required.

The positive news is that there has been rapid progress in the development of LNG markets (and, to a lesser extent, the CNG) as well as technological innovations in their transport. The current global gas market is characterized by regional price divergence due to a fragmented market. However, with the growth of the LNG spot market and the development of new LNG infrastructure in the United States, price differentials will be eroded. As the LNG market evolves, the price movements will eventually delink from the price of oil. Also, LNG contracts will become shorter and more flexible as diversion of cargo becomes more common. LNG prices may also be dampened somewhat due to higher supply as more export terminals, particularly in North Anerica, come on stream (see Ernst and Young (2013)). This might explain some of the forecasted convergence of the three major gas markets shown in Figure 5.

[1] For more details, see the Supplement on PetroCaribe in the June 2013 Caribbean Quarterly Bulletin.

Figure 5. Natural Gas Price (Real US$ 2005, $/MMBTU))



Source: World Bank Commodity Price Forecast Data, July 2013.

Greater opportunities will come with technological changes in gas transport. For example, the use of modified LNG vessels that include an onboard regasification plant and a natural gas unloading system will likely soon become economically competitive for small- to medium-sized volumes. Floating storage and regasification units can be permanently moored onto an unloading buoy, with ship-to-ship transfer options (see Durr, Coyle, Hill and Smith, 2005). This might also become economically competitive for medium-sized volumes.

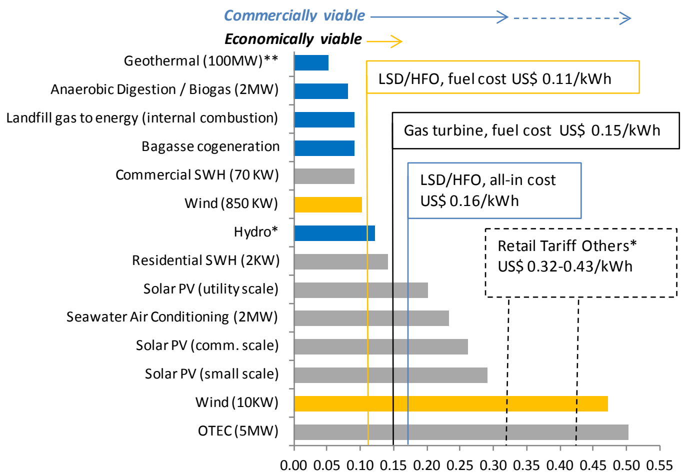
The regional sources for natural gas supplies will likely be the neighbors: Trinidad and Tobago, Colombia, Mexico, Venezuela, and the United States all have substantial natural gas reserves. However, the landing points are not available for all countries: according to the *World Port Index* Database, ports in St. Lucia, Guyana, and Suriname do not have sufficient depth at anchorage sites to dock a full–scale LNG ship, which typically has a loaded draft of 30–40 feet in depth and a length of 825 feet. A new jetty or an offshore buoy would have to be built for off-loading, and the cost of this would likely reduce the cost advantage of LNG.

The other option for delivery is through pipelines. The capital cost to build a pipeline is driven by distance. Therefore it is not always economically viable for small volumes. Nonetheless, natural gas could be supplied via pipeline from four potential suppliers: Trinidad and Tobago, Venezuela, and Colombia for islands in southeast Caribbean; and the United States for Jamaica and The Bahamas. The Eastern Caribbean Gas Pipeline is a potential subregional solution as well. It consists of an undersea natural gas pipeline with the capacity to supply 50 million cubic feet of natural gas per day to Barbados and 100 million cubic feet per day to Martinique, Guadeloupe, and St. Lucia from Trinidad and Tobago. This latter project is currently at the planning stages. In either case, recipient countries would also have to retrofit power plants to receive natural gas as feedstock instead of fuel oil.

What is Economically and Commercially Viable?

To determine the economic viability (i.e., alternative that reduces the cost for the country) and commercial viability (i.e., alternative that saves money for individual customers or businesses), we consider a range of renewable energy technologies. The status quo is a situation in which fuel oil is the main source of power generation, using a low-speed diesel plant. Figure 6 shows five different baselines.

Figure 6. Cost Curves of Alternative Energy



Source: Castalia, Sustainable Energy (2010) and CME group[2].

Figure 6 shows that many current technologies are economically and commercially viable in the Caribbean. In other words, to produce a kilowatt/hour of electricity, the long-run marginal cost of many renewable energy technologies is lower than the marginal cost of running a low-speed diesel plant typically used. However, the summary analysis does not apply equally to all countries. In some cases, the underlying renewable energy cost curves are different for two main reasons. First, some countries already produce electricity at low cost. This is the case for Trinidad and Tobago and Suriname, where diesel is not the primary feedstock for generating electricity. Second, not all resources shown in the bar columns of Figure 6 are available in all countries. For example, geothermal and hydro sources are only available in some countries, and within those countries, it might be specific to a

[2] See http://www.cmegroup.com/trading/energy/crude-oil/light-sweet-crude.html

certain area within the country. Table 1 summarizes the indicative viability of different technologies by country.

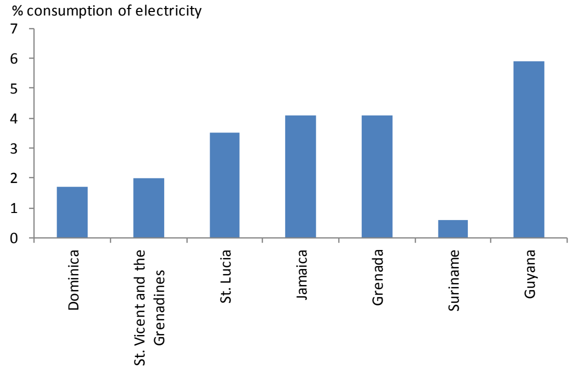
Table 1. Viable Energy Sources, by Country

	LNG	Wind	Geothermal	Hydro	Biomass
Antigua and Barbuda		*			*
Bahamas	*	*			*
Barbados	*			*	*
Dominica			*	*	*
Grenada			*		*
Guyana	*	*		*	*
Jamaica	*	*		*	*
Haiti	*	*			*
St.Kitts & Nevis			*		*
St. Lucia			*		*
St.Vincente and the Grenadines			*	*	*
Suriname	*	*			*
Trinidad & Tobago	*	*			*

Source: Authors' calculations.

Economic viability will also increase if and when Caribbean countries improve their energy efficiency. The potential savings from energy efficiency for a set of countries are depicted in Figure 7, which shows the share of electricity consumption that could be eliminated through improved energy efficiency. The data are at best illustrative rather than firm because the figures are based mainly on aggregate transmission losses. They do not include information on savings by energy end-users and technical losses, because these data are only partially available. Still, they are likely conservative estimates. The data show that savings from better energy efficiency could be as high as 5–7 percent of total electricity consumption for Grenada and Guyana.

Figure 7. Savings From Increased Energy Efficiency



Source: World Bank. *Note*: There is no data available for Barbados.

There Are Implementation Challenges…

The aforementioned technical analysis does not imply that a pure private sector-led solution will spontaneously occur or that it will result in an optimal solution for an individual Caribbean country or for the region as a whole. However, given that many countries face a tight fiscal situation and are highly indebted, the benefit of switching to alternatives and **the use of public–private partnerships to finance new sources should be strongly considered as part of any strategy to transform the energy matrix.** A guarantee mechanism from multilateral banks could be considered in some cases to fill gaps in the energy value-chain and to obtain lower prices from suppliers. It could also allow more favorable financial terms for the off-takers during the construction phase of facilities, particularly LNG, which can take a very long time.

In any shift to alternative sources, various aspects of the investment and conversion options have to be taken into account.

- First, to honor the existing contractual obligations with respect to purchases of oil-based fuel, a phase-out period might be required before it can be replaced.
- Second, the required investments in new and/or expanded ancillary facilities (e.g., conversion and storage facilities) for the replacement fuel are large, and would require public and private participation.
- Third, country initiatives to develop renewable energy sources (e.g., solar in Barbados, hydro in Guyana and Suriname, geothermal in Dominica, and wind in St. Lucia and Jamaica) need to be revisited to identify the cases in which LNG or CNG might have become a more viable energy source, given recent developments. Even when these renewable sources of energy are more efficient, a more reliable back-up source would be necessary. LNG and CNG could still be useful as a replacement for the existing higher-cost backup systems based on fossil fuels.
- Fourth, volatile macro conditions that adversely affect fiscal revenues might hamper the government's ability to meet the contractual terms and conditions over time. For example, an enterprise implementing the project might require a sovereign guarantee, which is a contingent fiscal liability. If there is a fiscal crunch resulting from a natural disaster or an external economic shock, the guarantee becomes active, further undermining the fiscal finances. Related to this, private utilities in some countries (e.g., Barbados and Jamaica) would not currently be eligible to benefit from a sovereign guarantee because a credit enhancement is not warranted. However, it is possible that

a non-sovereign partial credit guarantee could be provided by a multilateral institution. On the other extreme, The Bahamas Electricity Company or any such public utility might not be in a financial position to obtain the credit necessary for such an endeavor. Therefore, creative financial solutions to make such projects attractive would be in order.

Conclusion

Reducing the cost of energy through an innovative, viable plan in the Caribbean is not an insurmountable problem. If this problem can be tackled within a regional context but with solutions tailored to each country's needs, the resolution of the structural energy supply constraints is within reach and the diversification of the Caribbean energy matrix can be obtained. This would have positive fiscal impacts, would help improve competitiveness of firms, and hence enhance economic growth.

At present, the IDB's Caribbean Country Department and Energy Division are working with *Compete Caribbean* to develop country-specific and region-wide commercially viable solutions to the region's energy problems. The findings will be presented in a forthcoming Caribbean Regional Energy Conference.

References

Durr, Charles, David Coyle, Don Hill, and Sharon Smith. 2005. "LNG Technology for the Commercially Minded." Gastech, http://www.kbr.com/Newsroom/Publications/technical-papers/LNG-Technology-for-the-Commercially-Minded.pdf

Ernst & Young. 2013. "Global Oil & Gas LNG: Will New Demand and New Supply Mean New Pricing?" EYG No. DW0240. http://www.ey.com/Publication/vwLUAssets/Global_LNG_New_pricing_ahead/$FILE/Global_LNG_New_pricing_ahead_DW0240.pdf

Gerner Franz, and Megan Hansen. 2011. "Caribbean Regional Electricity Supply Options.". Report Number 59459, World Bank, Washington, DC.
http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/02/27/000356161_20110227233101/Rendered/PDF/594590ESW0WHIT1icity0Supply0Options.pdf

Morris, Andrew, and Keith Messenger. 2010. "Global Gas & LNG Markets & GB's Security of Supply: A Report to Department of Energy and Climate Change". Oxford, UK: Pöyry. http://www.poyry.com/sites/default/files/imce/files/globalgasandlngwithbgsecurity-june2010-energy.pdf

Yépez-García, Rigoberto Ariel, and Julie Dana. 2012. "Mitigating Vulnerability to High and Volatile Oil Prices." Washington, DC: World Bank.

The Caribbean Quarterly Bulletin

REGIONAL SUPPLEMENT: IN THE CARIBBEAN, ENERGY MATTERS!

The Caribbean Quarterly Bulletin was prepared by the Caribbean Economics Team, Inter-American Development Bank.

The contributors were Cherran O'Brien, Chrystol Thomas, Dillon Clarke, Juan Pedro Schmid, Musheer Kamau, Mariana Salazni, and Valerie Mercer-Blackman.

The section on the **Organization of Eastern Caribbean States** was prepared by Marla Dukharan, Group Economist, Royal Bank of Canada (Caribbean). Email: marla.dukharan@rbc.com

This issue's **Regional Supplement** was prepared by Inder Ruprah and Karl Melgarejo Castillo.

The Quarterly Bulletin's production team is headed by Inder Ruprah (director), and assisted by Valerie Mercer-Blackman (editor and coordinator), Mariana Salazni (coordinator), Rumit Pancholi (editor), and Dana Payne (editor and distributor). Sasha Baxter and Stevonne Nugent (both research consultants) also contributed.

For questions or comments please email CET@iadb.org