

# Caribbean Knowledge Generation



Years in Review 2013-2016

## MONOGRAPHS

### **Is There a Caribbean Sclerosis? Stagnating Economic Growth in the Caribbean**

**Abstract:** This report addresses several critical questions regarding Caribbean nations. Does size matter for economic growth and volatility? To what degree has Caribbean economic growth been inferior to that of ROSE? What could account for the Caribbean growth gap and what economic policies might decision-makers adopt to promote higher and sustainable growth? The answers to these questions will support the overarching hypothesis that the Caribbean suffers sclerosis. The almost-exclusive focus on economic growth in this report does not imply that it should be the sole criterion to judge economic performance. Nevertheless, economic growth is the central concern of Caribbean policymakers, who recognize that it is critical to improve broad economic development, and hence to improve the welfare of Caribbean citizens. The central focus here is on six countries in the region, which will be referred to as the C6: The Bahamas, Barbados, Guyana, Jamaica, Suriname, and Trinidad and Tobago. However, the analysis will sometimes include, most often in the aggregate, the countries of the Organisation of Eastern Caribbean States (OECS). The six members of the OECS used in this report are Antigua and Barbuda, the Commonwealth of Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines.

<http://publications.iadb.org/handle/11319/6450?locale-attribute=en>

**Author:** Ruprah, Inder J.; Melgarejo, Karl Alexander; Sierra, Ricardo

**Date:** 2014-03

## POLICY BRIEFS

### **Diversification in Trinidad and Tobago: Waiting for Godot?**

Should the real exchange rate play a role in diversifying the Trinidad and Tobago economy? The evidence assembled in this policy brief suggests that the exchange rate could have an important role in fiscal adjustment, economic growth, and diversification. We find that a major change in the exchange rate would reduce the size of the fiscal adjustment in the short term. It would boost diversification of non-energy export products and their markets over the medium term, hence spur economic growth and employment. – See more at <https://publications.iadb.org/handle/11319/7888>

**Authors:** Khadan, Jeetendra; Ruprah, Inder J.

**Date:** 2016-10

### **CARICOM and Canada: Good Trading Partners?**

Despite seven rounds of negotiations since 2007, the Caribbean Community (CARICOM) and Canada were unable to concur on the establishment of a free trade agreement (FTA) to replace the existing Caribbean Canada Trade Agreement (CARIBCAN). Instead, the CARIBCAN waiver has been extended until 2023. At this stage, it is unclear when or if both parties will return to negotiations under the extended CARIBCAN waiver. Despite this uncertainty, it is important to determine whether Canada is a good trading partner for the CARICOM region. To undertake this exercise, we examine issues relating to export competitiveness, comparative advantage, and trade complementarity for trade in goods and services between CARICOM countries and Canada. We also conduct an experiment which assumes that a FTA is formed between CARICOM and Canada in order to estimate the impact of tariff liberalization on trade, revenue, and welfare on CARICOM countries. Our results indicate an unfavorable outlook for CARICOM countries on welfare grounds as well as on improving exports from CARICOM countries to Canada. - See more at: <https://publications.iadb.org/handle/11319/7889>

**Authors:** Deonarine, Amrita; Hosein, Roger; Khadan, Jeetendra

**Date:** 2016-10

### **Brexit and the Caribbean: Much Ado About Nothing?**

This report estimates the direct and indirect macroeconomic impact of the Brexit leave vote on the Caribbean during 2016 and 2017 in terms of economic growth, exports, tourism, and remittances. We consider six Caribbean countries (denominated as C6): The Bahamas, Barbados and Jamaica (tourism-based), and Guyana, Suriname and Trinidad and Tobago (commodity-based). We find the estimated quantitative impact of Brexit(v) to be very small if not negligible. – See more at: <https://publications.iadb.org/handle/11319/7880>

**Authors:** Khadan, Jeetendra; Ruprah, Inder J.

**Date:** 2016-10

### **Debt, fiscal adjustment, and economic growth in Jamaica**

The buildup of debt in Jamaica has been concurrent with the country's slow economic growth, and the issues are intertwined. High debt slows economic growth, and slow economic growth makes the process of reducing the debt burden more difficult. Jamaica committed itself to a strict fiscal consolidation program to reduce its debt burden. The fiscal consolidation will be long, spanning more than half a generation, until reaching the debt-to-GDP target of 60 percent by 2026. Besides

adhering to the fiscal targets, success will depend on the country's ability to break away from a history of low economic growth. - See more at <https://publications.iadb.org/handle/11319/7438>

**Author:** Schmid, Juan Pedro

**Date:** 2016-01

### **Going for Growth: Pilot Benchmarking in the Caribbean**

Sustainable economic growth has reemerged as a subject of Caribbean policy discussions, given the region's relatively lackluster performance in recent decades. However, most policy discussions still focus on the region's fiscal and macroeconomic constraints instead of on the analysis of underlying productivity drivers. This is due in part to the persistence of fiscal and debt crises across the region since the 1980s, and inadequate data available to perform basic productivity analyses. This brief adapts a benchmarking framework originally developed by the Organization for Economic Co-operation and Development to identify constraints to growth and help policymakers prioritize actions to address them. It summarizes the original technical background work and presents the results of initial exercises, using this framework, for The Bahamas, Barbados, Guyana, Jamaica, Suriname, and Trinidad and Tobago. - See more at: <https://publications.iadb.org/handle/11319/7012>

**Author:** Mercer-Blackman, Valerie; Melgarejo, Karl Alexander; Salazni, Mariana

**Date:** 2015-06

### **How much Anti-Money Laundering Effort Is Enough? The Jamaican Experience**

The worldwide fight against money laundering (AML) is escalating. Individuals and businesses that conduct and depend on legitimate international financial transactions are feeling the impact of measures meant to counter illegitimate ones. Countries flagged as having weak AML regulations encounter substantial challenges maintaining correspondent banking relations. However, recent experiences have shown that fulfilling the AML standards, albeit necessary, is not sufficient to persuade financial institutions to keep international financial relations. This is particularly the case with international fund transfers via correspondent banks. Jurisdictions such as Jamaica--even if generally complying with AML standards--face challenges to use banks for correspondent services. - See more at: <https://publications.iadb.org/handle/11319/6904>

**Author:** Schmid, Juan Pedro

**Date:** 2015-04

### **Caribbean Economic Alchemy: Has Magic Returned to Bauxite**

After a long period of stagnating prices, the global bauxite market is experiencing changes which are expected to drive prices higher. To a large extent, these changes are driven by increasing demand from Chinese manufacturing. However, constraints on exports imposed by major bauxite producers, such as Indonesia and India have affected the supply side as well, and represent an opportunity for Caribbean bauxite exporters to increase their share of a growing market. This Policy Brief provides an overview of the aforementioned changes in market conditions and proposes a new approach to organizing bauxite mining for the Caribbean bauxite exporters. - See more at: <https://publications.iadb.org/handle/11319/6763>

**Author:** Khan, Sarosh

**Date:** 2015-01

### **The Fear Factor: A Back-Of-The-Envelope Calculation on the Economic Risk of an Ebola Scare in the Caribbean**

This brief presents simulations of an Ebola scare in the Caribbean, including three highly tourism-dependent economies, The Bahamas, Barbados, and Jamaica. On the basis of the experience of Mexico in 2009 with swine flu, we simulate a short but sharp drop in tourist arrivals resulting from tourists' worries about Ebola. The Caribbean is special in that tourism contributes directly and indirectly up to half of its GDP. The simulations indicate that the volatility of tourism combined with that dependence creates significant vulnerability for the region. Under the worst-case scenario, a noticeable impact could be expected even in countries with a smaller dependence on tourism. In addition, declines could also be expected for employment and revenues. However, 'pandemic scares' can be short-lived and the simulations indicate that the Caribbean would be able to absorb a short tourism drop. The intensity and duration of the outfall in tourism would depend on the real and perceived preparedness of the affected countries, highlighting that countries in the Caribbean need to not only avoid or minimize any Ebola cases but also ensure that tourists perceive these countries as safe places. <http://publications.iadb.org/handle/11319/6734>

**Author:** Schmid, Juan Pedro.; Malcolm, Xavier

**Date:** 2014-12

### **Mothers Are Right: Eat Your Vegetables And Keep Away From The Girls (Boys): Bullying Victimization Profile in the Caribbean**

**Abstract:** About 29 percent of teenagers are bullied at school in the Caribbean. Victims of bullying are more lonely, sleep less, and have fewer friends than do their nonbullied peers. Although victims

of bullying eat more frequently at fast food restaurants, they also experience more periods of hunger than do nonbullied children. Acting out with the goal of being considered a "cool" teenager does not work; even if adolescents frequently smoke cigarettes, bullies may still intimidate and harass them. The opposite is true for virgins. Good parenting can, however, make a difference in preventing a child from being a victim of bullying. Growing international evidence has shown that school-based programs can reduce the prevalence of bullying and that bullying has long-term negative consequences into adult life (for both bullies and victims).  
<http://publications.iadb.org/handle/11319/6591>

**Author:** Ruprah, Inder J.; Sierra, Ricardo

**Date:** 2014-08

### **Unemployment and Growth: Does Okun's Law Apply to Trinidad and Tobago?**

**Abstract:** Are output changes and the unemployment rate related in Trinidad and Tobago? According to the economic theory known as Okun's Law, the two variables should be negatively correlated, and for the United States this relation holds quite well. We test this hypothesis for the economy of Trinidad and Tobago using annual data between 1980 and 2012 and also look at more recent quarterly data, accounting for the fact that the energy sector is a large contributor to the country's GDP. We find that the relation between unemployment and real growth is negative but weaker in Trinidad and Tobago, compared with the United States, but seems to be clearly affected by underestimation of the unemployment rate in recent years. This exercise also reinforces the importance of improving labor and GDP statistics in the country.  
<http://publications.iadb.org/handle/11319/6648>

**Author:** Mercer-Blackman, Valerie; Salazni, Mariana

**Date:** 2014-08

### **To Cut or Not To Cut: Does the Caribbean Follow the Advice of Multilaterals?**

**Abstract:** This policy brief defines the challenges of conducting appropriate fiscal policy over the past 20 years in four Caribbean countries (The Bahamas, Barbados, Suriname, and Trinidad and Tobago) and reviews international financial institutions' technical assistance and advice on tax and expenditures policies. The review finds that national authorities usually agree with the policy recommendations of the international financial institutions in most areas but disagree with the pace and scale of policy implementation. Moreover, delays in implementing required policy action at a suitable pace in many instances may have contributed to a pro-cyclical fiscal stance and worsened the region's fiscal accounts. In future designs of technical assistance, some Caribbean-specific

features need to be taken into account. The authors analyze current conditions and provide viable recommendations. <http://publications.iadb.org/handle/11319/6375>

**Author:** Mercer-Blackman, Valerie; Seerattan, Dave

**Date:** 2014-03

#### **Finding New Tourism Opportunities: Finally Looking South?**

**Abstract:** In this policy brief, we examine the current tourism product in the CARICOM member states with a particular focus on the economies that rely most on the industry. The analysis shows that the tourism industry has steadily declined since the 2008 financial crisis and the introduction of the Air Passenger Duty by a main source market, the United Kingdom. Expanding the tourism source markets to emerging economies could reduce the vulnerability of the sector and create greater potential for value chains and increased trade with new commercial partners. <http://publications.iadb.org/handle/11319/6408>

**Author:** Thomas, Chrystol

**Date:** 2014-03

#### **Fiscal Unruliness: Checking the Usual Suspects for Jamaica's Debt Buildup**

**Abstract:** Jamaica's fiscal and debt position has long been recognized as a major issue for the country, and the country has made several attempts to resolve this challenge by increasing revenue or reducing expenditures. Despite these adjustments, Jamaica has systematically failed to achieve its budget targets. This analysis shows that the major weakness in the budget planning execution is revenue projection, which influences planned expenditures. In contrast, the limitation in reducing rigid recurrent expenditures -mostly interest and wage salary payments- has led to the introduction of measures aimed at meeting appropriate revenue targets. In addition, capital expenditure has systematically underperformed relative to the budget, possibly to compensate for these weaknesses. However, fiscal targets have still underperformed relative to budget projections. These repeated, lower-than-expected revenues combined with rigid expenditures led to continuous debt buildup, reaching a level that needs deep institutional reforms. <http://publications.iadb.org/handle/11319/6053>

**Author:** Schmid, Juan Pedro

**Date:** 2014-02

#### **The Business Climate in Jamaica: What Does the Enterprise Survey Have to Say?**



Abstract: Jamaican firms are constantly plagued by a number of issues that restrict their ability to grow. The World Bank's Enterprise Survey examined the key indicators to give insight on the business climate in Jamaica. Compared with firms in the Latin America and Caribbean (LAC) region, Jamaican firms face several constraints to growth and operation. Within the Caribbean Country Department (CCB), Jamaica is the only member - except Suriname - that identified close to half of the areas as constraints to firm operation. Tax rates, access to finance, practices of the informal sector, and electricity were identified as their biggest obstacles.  
<http://publications.iadb.org/handle/11319/1530>

**Author:** Nugent, Stevonne; Schmid, Juan Pedro

**Date:** 2014-01

### **Okun and Jamaica at 50: How Does Unemployment React to Growth?**

Abstract: Jamaica is projected to exit a prolonged recession that has left deep scars in the socioeconomic conditions of the country. Besides increasing macroeconomic vulnerabilities and halting economic growth, advances in poverty and unemployment were reversed. Unemployment bottomed in 2009 at 9.5 percent but increased over the following years until reaching more than 16 percent by April 2013, and poverty increased from 9.9 percent in 2007 to 17.6 percent in 2010. Following the literature on Okun's rule of thumb, we explore how the projected recovery will be reflected in the labor market. Results indicate that there is an association between GDP growth and unemployment - a 1 percent growth in GDP results in a 0.3 percent reduction in unemployment. These values indicate that under current growth projections, unemployment in Jamaica will remain above the psychologically important threshold of 10 percent for several years.  
<http://publications.iadb.org/handle/11319/1528>

**Author:** Nugent, Stevonne; Schmid, Juan Pedro

**Date:** 2013-12

### **Laments of the Caribbean Businessperson are Based on Facts?**

Abstract: In this policy brief, we review the laments of Caribbean businesspersons. We find that subjective perceptions are rooted in an objective reality. Businesspersons do not complain gratuitously. Furthermore, we find that constraints vary systematically by firm characteristics: In general, small firms and contracting firms face relatively harsher conditions. To enhance a country's economic growth, relevant policy needs to be changed toward a more pro-business stance.  
<http://publications.iadb.org/handle/11319/1521>

**Author:** Ruprah, Inder J.; Sierra, Ricardo

**Date:** 2013-11



### **Spillovers of Global Shocks over Caribbean Countries: So Large That There Is Little Room to Maneuver: An Impulse Response Analysis**

**Abstract:** Caribbean countries are many times described as "vulnerable" in that they are highly prone to shocks such as food price hikes, natural disasters, and other global phenomena. This policy brief discusses a particular type of "vulnerability", namely, the impact of the trading partner, output changes, and commodity price changes on their GDP growth. The analysis is based on a cointegration analysis that shows why much of the growth trend of these countries can be explained by one or two variables: a commodity price and trading-partner GDP. We also discuss how that effect unfolded during the recent global recession and what its consequent effect was on the fiscal accounts. In addition, we consider how output could change going forward if such a global shock were to reoccur. <http://publications.iadb.org/handle/11319/1525>

**Author:** Mercer-Blackman, Valerie; Melgarejo, Karl Alexander

**Date:** 2013-11

### **The Question is Not Whether "To Devalue or Not to Devalue?" But Rather "What to Devalue?"**

**Abstract:** In this policy brief, we review the problem of a lack of competitiveness and the policy options to improve competitiveness and hence promote economic growth. Inadequate competitiveness can be measured as a sustained current account deficit of the balance of payments. We discuss the advantages and disadvantages of three devaluation policy options: an external devaluation, an internal devaluation, and a fiscal devaluation. We conclude that the latest fashionable option, fiscal devaluation, offers gain with no pain but detailed country-specific simulations are needed to determine which option is the better one. <http://publications.iadb.org/handle/11319/1520>

**Author:** Ruprah, Inder J.

**Date:** 2013-10

### **Don't Talk to Me about Debt. Talk to Me about Growth**

**Abstract:** In this policy brief, we focus on the debates surrounding what has been called the "silent debt crisis" of the Caribbean. We discuss the level of debt at which the relation with economic growth turns from positive to negative. We also discuss, illustrated with simulations of the tradeoffs, how to reduce the debt level with policy options that complement fiscal austerity with debt restructuring, economic growth promotion, acceleration of inflation, and financial repression. Each policy option carries an advantage in terms of easing the required fiscal adjustment; however, each

also presents downsides that could undermine such a benefit. There appears to be no gain without upfront pain. <http://publications.iadb.org/handle/11319/1518>

**Author:** Ruprah, Inder J.; Melgarejo, Karl Alexander

**Date:** 2013-09

### **Does Size Matter? Yes, If You are Caribbean!**

**Abstract:** This policy brief reviews whether the size of a country limits economic growth. Diseconomies of scale, indivisible fixed costs and geographic barriers represent intrinsic characteristics of small economies that might hinder economic growth. However, while some small economies have overcome the size hurdle, Caribbean countries have not. There is a widening growth and GDP per capita gap between the Caribbean and other small economies. Further, the Caribbean countries' ability to generate employment for given growth has fallen over time and relative to other small economies. It is not size that is the problem. <http://publications.iadb.org/handle/11319/1516>

**Author:** Ruprah, Inder J.

**Date:** 2013-09

## **WORKING PAPERS**

### **Sex, Violence, and Drugs among Latin American and Caribbean Adolescents: Do Engaged Parents Make a Difference?**

This paper uses data from the Global School-based Student Health Survey to investigate the prevalence of health risk behaviors—in particular, substance use, risky sexual behavior, and violence—among adolescents in 15 Latin American and Caribbean countries. Using logit regressions and meta-analysis, we find that having parents engaged in raising their children is associated with significantly reduced problem behaviors in adolescents. That said, in the Caribbean the prevalence of health risk behaviors in adolescents is higher and engaged parents is lower than in Latin America, and the correlation between engaged parenting and reduced risk behaviors is generally weaker. Nonetheless, for both subgroups of countries, engaged parents do appear to make a difference. See more at: <https://publications.iadb.org/handle/11319/7557>

**Author:** Ruprah, Inder J; Sierra, Ricardo; Sutton, Heather

**Date:** 2016-04

### **Transitioning the Tax System to Take Advantage of the Natural Gas-Rich Economy in Trinidad and Tobago**

In this paper, the author examines the current structure of the tax system for hydrocarbon production in Trinidad and Tobago in light of global trends in hydrocarbon taxation. Some of the main features of the tax regime are compared and benchmarked against what the literature has defined as best practices. The author calculates marginal effective tax rates, given assumptions of oil and gas prices and changes in tax incentives, and finds that tax levels are relatively adequate from an international perspective. Some of the more recent tax incentives, although helpful in terms of cash flow relief for companies, do not make as big of a difference to tax revenues and investment plans as do, for example, changes in international conditions when considered over the long run. Moreover, given the preeminence of natural gas in the economy, the tax system could be better modified to consider the special structural features of the gas market, while still encouraging investment in other energy sectors.

<https://publications.iadb.org/handle/11319/7368#sthash.aBi2gbLs.dpuf>

**Author: Mercer-Blackman, Valerie**

**Date: 2015-12**

### **Religion as an Unemployment Insurance Scheme: the case of the Caribbean and Latin America**

This paper explores the role of religion in mitigating the degree to which unemployment reduces subjective well-being and it examines its support of social programs. The paper goes beyond existing literature in three ways: It extends existing literature to Latin America and Caribbean countries; it explicitly includes analysis of two confounders (social capital and personal traits) ignored in existing literature; and it moves beyond correlation by using the propensity score method to tease out a causal relation between religion and well-being. We find that religion acts as a buffer: Unemployed religious people are relatively happier than are nonreligious unemployed people. However, in contrast with the existing literature, we find that religious people are relatively more supportive of public social policy. - See more at: <https://publications.iadb.org/handle/11319/6978>

**Author: Pecha, Camilo; Ruprah, Inder J**

**Date: 2015-06**

### **Understanding Economic Growth in the Caribbean: A Conceptual and Methodological Study**

A renewed interest in explaining growth in the Caribbean countries is motivated by the somewhat slow but uneven performance in the past decade: per capita GDP gaps in Caribbean countries have widened in relation to the United States, whereas standard theories would predict convergence. This study (a) examines the question using methods developed in the recent growth literature on economic growth and (b) characterizes the main elements of growth by estimating empirical

models. On the basis of time-series and comparative static estimations, the study finds that the combination of domestic policies, high indebtedness, and outside shocks (e.g., oil price changes or main trading partners' tourism demand) explain well the gap in growth of the six IDB member countries (The Bahamas, Barbados, Guyana, Jamaica, Suriname, and Trinidad and Tobago). - See more at: <https://publications.iadb.org/handle/11319/6962>

**Author: Fuentes, J. Rodrigo; Melgarejo, Karl Alexander; Mercer-Blackman, Valerie**

**Date: 2015-06**

### **Information and Communication Technologies, Prenatal Care Services and Neonatal Health in Latin America and the Caribbean**

We evaluate the effectiveness of sending text messages to pregnant women containing appointment reminders and suggestions for healthy behaviors during pregnancy. Receiving messages had an overall positive effect of 5 percent on the number of prenatal care visits attended. Moreover, for women who live close to their assigned health center and who have higher educational attainment, the intervention positively affected vitamin intake compliance, APGAR scores, and birth weight. Evidence suggests that reminders are more effective among those who are more able to understand the future benefits of preventive care (more educated) and who face lower transaction costs of going to prenatal care checkups (located near health centers). No evidence of geographical spillover effects was found. - See more at: <https://publications.iadb.org/handle/11319/6940>

**Author: Beuermann, Diether; Anta, Rafael; García, Patricia J.; Maffioli, Alessandro; Perez Lu, Jose; Rodrigo, Maria Fernanda**

**Date: 2015-05**

### **Privately Managed Public Secondary Schools and Academic Achievement in Trinidad and Tobago;**

Many nations allow private entities to manage publicly funded schools and grant them greater flexibility than traditional public schools. However, isolating the causal effect of attending these privately managed public schools relative to attending traditional public schools is difficult because students who attend privately managed schools may differ in unobservable ways from those who do not. This paper estimates the causal effect on academic outcomes in Trinidad and Tobago as a result of attending privately managed public secondary schools (assisted schools) relative to traditional public secondary schools. In Trinidad and Tobago, students are assigned to secondary schools based on an algorithm that created exogenous variation in school attendance, allowing us to remove self-selection bias. Despite large differences in teacher quality and peer quality across these school types, we find little evidence of any relative benefit in attending an assisted school between the

ages of 10 and 15 in terms of dropout rates or examination performance at age 15. - See more at: <https://publications.iadb.org/handle/11319/7308>

**Author:** Beuermann, Diether; Jackson, C. Kirabo; Sierra, Ricardo

**Date:** 2015-11

#### **Do Remittances Help Smooth Consumption during Health Shocks? Evidence from Jamaica**

**Abstract:** We identify whether remittances facilitate consumption smoothing during health shocks in Jamaica. In addition, we investigate whether remittances are subject to moral hazard by receivers, how the informal insurance provided by remittances interacts with formal health insurance, and whether there are differential effects by gender of the household head. We find that remittances offer complete insurance toward decreased consumption during health shocks and that moral hazard is weak. The role of remittances as a social insurance mechanism, however, is relevant only in the absence of private health insurance. No differential effects by gender of the household head are found. <http://publications.iadb.org/handle/11319/6537>

**Author:** Beuermann, Diether; Ruprah, Inder J.; Sierra, Ricardo

**Date:** 2014-06

#### **Information and Communication Technology, Agricultural Profitability, and Child Labor in Rural Peru**

**Abstract:** We estimate the impact of access to information and communication technology on agricultural profitability and child labor among isolated villages in rural Peru. We exploit the timing of an intervention that provided at least one public (satellite) payphone to 6,296 villages that did not previously have communication services. Using a village level panel, we show that profitability increased by 19.7 percent. Moreover, this income shock translated into a reduction in the likelihood of child market and agricultural work of 14 and nine percentage points respectively. Overall, the evidence suggests a dominant income effect in the utilization of child labor. <http://publications.iadb.org/handle/11319/4645>

**Author:** Beuermann, Diether

**Date:** 2013-10

### **Risk Management with Thinly Traded Securities: Methodology and Implementation**

Abstract: Thinly traded securities exist in both emerging and well developed markets. However, plausible estimations of market risk measures for portfolios with infrequently traded securities have not been explored in the literature. We propose a methodology to calculate market risk measures based on the Kalman filter which can be used on incomplete datasets. We implement our approach in a fixed- income portfolio within a thin trading environment. However, a similar approach may be also applied to other markets with thinly traded securities. Our methodology provides reliable market risk measures in portfolios with infrequent trading.  
<http://publications.iadb.org/handle/11319/4647>

**Author:** Cortazar, Gonzalo; Beuermann, Diether; Bernales, Alejandro

**Date:** 2013-10

## **TECHNICAL NOTES**

### **Crime and Violence in The Bahamas: IDB Series on Crime and Violence in the Caribbean**

This report is part of an IDB technical note series on crime and violence in the Caribbean. The overall aim is to establish a baseline in the crime prevention arena against which progress can be assessed. The report compiles the available data from multiple sources in order to provide a diagnosis of the size, characteristics, and changing nature of the problem of crime and violence in The Bahamas. In addition, the report provides a survey of the various crime prevention and suppression policies, programs and projects adopted by government and private and nongovernmental organizations in recent years. In performing the above-mentioned tasks, the report offers an assessment of the data collection, analysis, and crime response capabilities in The Bahamas, and makes suggestions about the most effective way forward. - See more at: <https://publications.iadb.org/handle/11319/7771>

**Author:** Sutton, Heather

**Date:** 2016-07

### **Crime and Violence in Barbados: IDB Series on Crime and Violence in the Caribbean**

This report is part of the Inter-American Development Bank's Technical Note Series on Crime and Violence in the Caribbean. The overall aim is to establish a baseline of the crime-prevention arena against which progress can be assessed. The report compiles available data from multiple sources to provide a diagnostic of the size, characteristics, and changing nature of the problem in Barbados in

recent years. In addition, the report provides a survey of the various crime-prevention and suppression policies, programs, and projects adopted by the government, private companies, and nongovernmental organisations. In performing the aforementioned tasks, the report (a) offers an assessment of the data collection, analysis, and crime response capabilities in Barbados; and (b) makes suggestions about the most effective plans for corrective action. - **See more at:** <https://publications.iadb.org/handle/11319/7774>

**Author: Bailey, Corin**

**Date: 2016-06**

#### **Crime and Violence in Jamaica: IDB Series on Crime and Violence in the Caribbean**

This report is part of an IDB technical note series on crime and violence in the Caribbean. The overall aim is to establish a baseline of the crime prevention arena against which progress can be assessed. The report compiles the available data from multiple sources in order to provide a diagnosis of the size, characteristics, and changing nature of the crime problem in Jamaica over the last 10 years. In addition, the report provides a survey of the various crime prevention and suppression policies, programmes, and projects adopted by government, private organizations, and non-governmental organizations in recent years. In performing the above-mentioned tasks, the report offers an assessment of the data collection, analysis, and crime response capabilities in Jamaica, and makes suggestions regarding the most effective way forward. - See more at: <https://publications.iadb.org/handle/11319/7773>

**Author: Harriot, Anthony D; Jones, Marlyn**

**Date: 2016-06**

#### **Crime and Violence in Trinidad and Tobago: IDB Series on Crime and Violence in the Caribbean**

This report is part of an IDB Technical Note series on crime and violence in the Caribbean. The overall aim is to establish a baseline of the crime prevention arena against which progress can be assessed. The report compiles the available data from multiple sources in order to provide a diagnosis of the size, characteristics, and changing nature of the problem in Trinidad and Tobago. In addition, the report provides a survey of the various crime prevention and suppression policies, programmes, and projects adopted by government, private and non-governmental organisations in recent years. In performing the above-mentioned tasks, the report offers an assessment of the data collection, analysis, and crime response capabilities in Trinidad and Tobago, and makes suggestions about the most effective way forward. - See more at: <https://publications.iadb.org/handle/11319/7772>



**Author: Seepersad, Randy**

**Date: 2016-06**

### **Chinese Rise in the Caribbean: What Does It Mean for Caribbean Stakeholders?**

Chinese and Caribbean economic relations have deepened over the past decade and a half. The paper analyzes the impetus for China's foreign economic policy to reach out to developing regions such as the Caribbean, as well as highlights recent trends in merchandise trade and foreign direct investments, in particular between the Caribbean and China. Furthermore it indicates areas of potential benefits and risks, identifies some of the implications of these new South-South cooperation ties, and concludes with recommendations based on game theory insights to further deepen and more fully assure mutual benefit from the relationship going forward. - See more at: <https://publications.iadb.org/handle/11319/7777>

**Authors: Wenner, Mark D.; Clarke, Dillon**

**Date: 2016-07**

### **Guyana's PetroCaribe Rice Compensation Scheme Has Ended: Assessment and Policy Implications**

The government of Guyana signed a rice compensation agreement with Venezuela in 2009 wherein Guyanese rice exports were accepted in partial payment for imports of Venezuelan oil. The agreement ended in November 2015 and was not renewed for 2016. The scheme had provided stimulus to the Guyanese rice sector, resulting in higher levels of investments in improved inputs and machinery, an expansion in area cultivated, higher levels of outputs, higher levels of exports, and increased employment. The main incentive was the payment of a market premium, averaging 20 percent greater than world price. Despite improvements in yields, the average cost of production for a metric ton of Guyanese rice has remained uncompetitive compared with other leading exporters of rice (US, India, Pakistan, Thailand, Vietnam), limiting export market diversification opportunities. Because the scheme ended, Guyana must now place its entire exportable surplus in alternative markets. Without dramatic reductions in the cost of production, Guyana's response strategy will be limited to searching for premium bilateral deals and improving value-added processing activities. At present, Cambodia and Myanmar are displacing Guyana's rice exports to the European Union market, and Vietnam has entered into a supply agreement with Haiti, one of Guyana's Caribbean Community markets. This paper assesses the implications of Guyana's vulnerability in this scenario and offers recommendations to assuage the risks of a sharp price reduction. <https://publications.iadb.org/handle/11319/7457#sthash.f3pBSoPO.dpuf>

**Author: Rogers, Roger; Wenner, Mark D.; Clarke, Dillon**

**Date: 2016-02**

### **Diaspora Bonds in the Caribbean**

Many independent countries in the Caribbean have large stocks of migrants abroad who send remittances to relatives in the homeland. Most Caribbean migrants reside in four principal host or remittance-sending countries: the United States, Canada, the United Kingdom, and The Netherlands. Remittances constitute more than 5 percent of GDP in most countries and exceed 10 percent in the case of Guyana, Haiti, and Jamaica. The transfers help to smooth consumption patterns, alleviate poverty, increase the supply of investable funds, and improve balance of payments. Many developing countries and most Caribbean states are fiscally constrained and have limited access to private international capital markets. Given substantial remittance inflows worldwide (US\$413 billion in 2014 compared with US\$135 billion in foreign aid in the same year), the governments of remittance-receiving countries wonder how some of its migrants' savings could be tapped to bridge financing gaps. - See more at: <https://publications.iadb.org/handle/11319/7257>

**Author: Wenner, Mark D**

**Date: 2015-10**

### **Tourism and Ecotourism Development in Guyana**

Guyana has high potential to develop a nature-based tourist niche market and help diversify its economic base, which now depends on the export of primary commodities. Despite many natural attractions, Guyana is still at a nascent stage of nature-based development relying on primary factors for tourism development as opposed to thorough planning, focused investments, and aggressive marketing efforts. Other segments of traditional tourism development such as business and leisure also are undeveloped and little studied. The tourism sector in general faces many constraints, such as high air travel cost, inadequate infrastructure, a slew of small-scale lodging properties that are not graded or certified, lack of marketing, and limited government budgetary outlays and incentives that would serve to stimulate development of the sector. - See more at: <https://publications.iadb.org/handle/11319/7331>

**Author: Wenner, Mark D; Johnny, Teneisha**

**Date: 2015-12**

### **Victimization Surveys 101**

While crime and violence are major global concerns, they are notoriously difficult to study, particularly in the developing world. Many crimes are never reported to police, and in many countries certain types of violence are not illegal, in which case there are typically no administrative records to collect. To better estimate this "dark figure" of unreported crime and violence, victimization surveys are a very useful tool. Although all surveys follow some core principles, surveys that measure rare events such as crime involve a host of considerations beyond those on topics most people have experienced or those measuring public sentiment. - See more at: <https://publications.iadb.org/handle/11319/7225>

**Author:** Vriniotis, Mary

**Date:** 2015-09

### **Vulnerability, Debt and Growth in the Caribbean: A Fan Chart Approach**

**Abstract:** High government debts, weak economic growth, vulnerability to external shocks and the design of sound fiscal consolidation strategies are among the most critical issues that some of the Caribbean countries have currently to deal with. Stabilization programs may harm economic growth but, under certain conditions, they could be expansionary. The main result of this analysis is that the uncertainty about the future evolution of debt increases when the volatility of exogenous shocks that affect fiscal revenues are properly accounted for in the debt sustainability analysis. <http://publications.iadb.org/handle/11319/5990>

**Author:** Andrian, Leandro; Mercer-Blackman, Valerie; Presbitero, Andrea; Rebucci, Alessandro

**Date:** 2013-09

### **Policy Benchmarking for Productivity and Growth: Review and Proposed Framework for the Caribbean**

**Abstract:** This paper contributes to the analysis of the Caribbean's growth performance by setting out a framework for benchmarking indicators of key micro drivers and related structural policies that help explain differentials in productivity and real GDP per capita across the region, and relative to non-regional benchmark countries. The framework is adapted from the OECD's Going for Growth exercises. Its emphasis on micro-drivers in the labor market and the business environment aims to help shift the focus of the current discussions on growth from macroeconomic considerations (e.g. fiscal sustainability, exports) toward an exploration of productivity, which the literature identifies as the principal constraint to growth in the Caribbean and elsewhere. Potential advantages of a benchmarking-for-growth framework include knowledge sharing of the policies and performance

indicators related to productivity in the Caribbean and appropriate benchmark countries. This could help stimulate further research and public discussion on the underlying factors behind the divergence in incomes as well as on the policies and environments that contribute to those differentials. An initial exercise highlights issues with restrictions for starting a business, the tax burden, the cost of imports and infrastructure deficiencies as potential barriers to growth.

<http://publications.iadb.org/handle/11319/5989>

**Author:** Melgarejo, Karl Alexander; D'Acosta, Michael; Mercer-Blackman, Valerie

**Date:** 2013-09

## QUARTERLY BULLETINS

The Caribbean Region Quarterly Bulletin discusses recent economic developments and includes a special topic of interest in each issue for the 6 IDB-member Caribbean countries, as well as the Organization of Eastern Caribbean States (OECS). The countries are: The Bahamas, Barbados, Guyana, Jamaica, Suriname and Trinidad and Tobago.

**Title:** Caribbean Region Quarterly Bulletin: Volume 5: Issue 3: September 2016

Special topic: **Brexit: Economic Consequences for the Caribbean**

This report estimates the direct and indirect macroeconomic impact of the Brexit leave vote on the Caribbean during 2016 and 2017 in terms of economic growth, exports, tourism, and remittances. We consider six Caribbean countries (denominated as C6): The Bahamas, Barbados and Jamaica (tourism-based), and Guyana, Suriname and Trinidad and Tobago (commodity-based). We find the estimated quantitative impact of Brexit(v) to be very small if not negligible. - See more at <https://publications.iadb.org/handle/11319/7856>

**Title:** Caribbean Region Quarterly Bulletin: Volume 5: Issue 2: June 2016

Special topic: **Debt: The Dark Side**

A moniker often invoked to describe the Caribbean is: "high debt, low growth." It was never completely true. Today it may have become so. The tourism countries, Jamaica, Barbados, and The Bahamas, are still in distress from the tailwinds from the world crisis of 2009. The commodity-exporting countries, Guyana, Suriname, and Trinidad and Tobago, relatively unscathed by that crisis, face strong headwinds as the international commodity boom wanes. In this overview of the region we explore answers to four questions: Is public debt too high? If so, what should be the change in the fiscal stance? How would higher economic growth help? Are fiscal buffers adequate in case

downside risks in the world economy materialise? - See more at:  
<https://publications.iadb.org/handle/11319/7683>

**Title: Caribbean Region Quarterly Bulletin: Volume 5: Issue 1: Mar 2016**

Special topic: **Crime in Paradise**

Crime strongly affects persons in the Caribbean. In a recent survey, 40 percent of the Caribbean population identified crime and security-related issues as the main problems facing their country, even above poverty, the economy or inequality. The priority of crime is striking considering the challenging economic situation that the world economy, and the Caribbean in particular, are facing. Crime is as complex as it can be damaging for the well-being of persons. While we have a good understanding of general triggers for crimes, it remains difficult to design, implement and evaluate country-specific crime and violence prevention programs. A major problem in this respect is the lack of comparable, detailed data, including for some countries in the Caribbean. The IDB has supported data generation in the region using victimization surveys for individuals and businesses, which are presented in this quarterly bulletin. - See more at:  
<https://publications.iadb.org/handle/11319/7497#sthash.Z0n2MFCu.dpuf>

**Title: Caribbean Region Quarterly Bulletin: Volume 4: Issue 4: Jan 2016**

Special topic: **Year in Review**

This issue also looks back at major developments in the Caribbean in 2015 and gives an economic outlook for the region. The regional supplement explains the importance of interest rates increases in the United States and explores how it could affect the Caribbean region. - See more at:  
<https://publications.iadb.org/handle/11319/7405>

**Title: Caribbean Region Quarterly Bulletin: Volume 4: Issue 3: Oct 2015**

Special topic: **Credit Ratings**

In the Special Country Reports, we look at credit ratings in the Caribbean. In line with challenging economic developments, credit ratings have been under pressure in several Caribbean countries. Weak fiscal situations, structural current account deficits, and vulnerability to external shocks all have put pressure on the credit ratings. - See more at:  
<https://publications.iadb.org/handle/11319/7339>

**Title: Caribbean Region Quarterly Bulletin: Volume 4: Issue 2: July 2015**

Special topic: **Education**

The regional supplement, entitled "Education in the Caribbean, a Gap Analysis", explores educational achievements in the region with a focus on existing gaps. It concludes that in spite of progress, quality and access remain a concern in many countries. In addition, it notes that the gender gap is strong as girls outperform boys at all levels of education. - See more at: <https://publications.iadb.org/handle/11319/7154>

**Title: Caribbean Region Quarterly Bulletin: Volume 4: Issue 1: March 2015**

Special topic: **Outlook for 2015**

Being the first Quarterly Bulletin in 2015, this issue departs from its usual format of recent developments and analytical reports on specific topics for each country. Instead, we take a step back and look at the major developments in the world economy and the Caribbean in 2014. In addition, we explore possible major developments in the world economy and how they might impact the Caribbean in 2015. - See more at: <https://publications.iadb.org/handle/11319/6889>

**Title: Caribbean Region Quarterly Bulletin: Volume 3: Issue 4: November 2014**

Special topic: **Inflation**

The regional supplement, entitled "Inflation in the Caribbean: a Dormant Volcano", discusses inflation risks in the Caribbean. Although inflation risks are expected to remain contained in the short and medium term, experience reminds us that Caribbean countries are highly vulnerable to fluctuations in commodity prices. In this vein, the regional report examines the determinants and risks associated with inflation in the CCB countries. <http://publications.iadb.org/handle/11319/6726>

**Title: Caribbean Region Quarterly Bulletin: Volume 3: Issue 3: July 2014**

Special topic: **Labour and Social Programs**

Abstract: This issue's Special Country Reports discuss labor and social programs and policies in these countries as well as the performance of the labor markets; it also considers the efficacy of the range of social programs available. The Bulletin also includes a section on recent developments in the countries of the Organization of Eastern Caribbean States (OECS). <http://publications.iadb.org/handle/11319/6578>

**Title: Caribbean Region Quarterly Bulletin: Volume 3: Issue 2: May 2014**

Special topic: **External Sustainability**

Abstract: The regional supplement, entitled "Kundalini Falling: Intertwined Fiscal and External Sustainability", discusses the impact of a possible low-probability event. Specifically, the risk of unexpected rises in interest rates in the United States and the decline of growth in China are directly relevant to the Caribbean region. The supplement explores these risks and assesses whether economies in the Caribbean region are prepared to weather such exogenous shocks. <http://publications.iadb.org/handle/11319/6475>

**Title: Caribbean Region Quarterly Bulletin: Volume 3: Issue 1: January 2014**

Special topic: **Getting More Income from Abroad**

Abstract: The Special Country Reports consider trends in tourism, and policy options for the sector. For Guyana, the report examines one of this country's main sources of external income: remittances from citizens living abroad. For Suriname, the report discusses options for establishing fiscal discipline and attracting private sector participation in the country's development amid increasing expectations. The Bulletin also includes a section on recent developments in the countries of the Organization of Eastern Caribbean States (OECS). <http://publications.iadb.org/handle/11319/4523>

**Title: The Caribbean Region Quarterly Bulletin: Volume 2: Issue 4: October 2013**

Special topic: **Energy Policies in the Caribbean**

Abstract: This issue highlights fiscal developments for 2013, which may 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 reducing the fiscal deficit, despite falling gold prices. This issue also assesses debt sustainability under different gold prices in Suriname. It also analyzes the existing energy structure in each of the Caribbean countries and discusses possible alternatives to resolve the high cost of energy and import dependency for the region as a whole. <http://publications.iadb.org/handle/11319/4462>

**Title: Caribbean Region Quarterly Bulletin: Volume 2: Issue 3: August 2013**

Special topic: **Economic growth** (Bahamas, Barbados, Guyana, Jamaica, and Trinidad and Tobago)



Special topic: **Informal Sector** (Suriname)

Abstract: This issue highlights the real growth that remained weak during the first half of 2013 in The Bahamas, Barbados and Jamaica. On the other hand, Guyana and Suriname are expected to outperform the region with an average growth rate of 5% in 2013. There are some signs of recovery in Trinidad and Tobago, however, growth in the energy sector has not taken off yet.  
<http://publications.iadb.org/handle/11319/4348>

**Title: Caribbean Region Quarterly Bulletin: Volume 2: Issue 2: June 2013**

Special topic: **Fiscal performance and medium term debt sustainability** (Bahamas, Guyana, Jamaica, and Trinidad and Tobago)

Special topic: **Banking Sector Stability** (Barbados)

Special topic: **Economic and Trade Integration** (Suriname)

Abstract: This issue highlights the high debt ratios and fiscal concerns that continue to push for more structural fiscal reforms in Jamaica and Barbados. Meanwhile, Guyana and Suriname will widen their fiscal deficit as a result of increasing public investment. There are some indicators of slow growth recovery in The Bahamas and Trinidad and Tobago.  
<http://publications.iadb.org/handle/11319/4335>

## FORTHCOMING

### Monographs

- Restoring Paradise in the Caribbean: Combatting Violence in Numbers
- The Caribbean Private Sector: It needs more than an Oil Change
- Is Oil Smothering the Private Sector in Trinidad and Tobago

### Policy briefs

- Caribbean Attitudes

### Quarterly Bulletin:

- Caribbean Region Quarterly Bulletin: Volume 5: Issue 4: December 2016

### Technical Notes

- Chinese Foreign Direct Investment in the Caribbean
- Towards the Greening of the Gold Mining Sector of Guyana

**Working papers:**

- The Economic Welfare Impacts for the CARICOM/Canada Free Trade Agreement
- Oil Income Shocks and the Trinidad and Tobago Economy
- Fiscal Rules: Towards a New Paradigm for Fiscal Sustainability in Small States
- Macroeconomic Fluctuations Under Natural Disaster Shocks in Central America and The Caribbean
- Estimating the size of the Informal Economy in the Caribbean
- Small Business Survival in Guyana: Insights and Implications
- Interaction of Monetary and MacroPrudential policies in Developing Economies
- Healthy to Work: The Impact of Free Public Healthcare on Health Status and Labour Supply in Jamaica
- Addressing debt overhang- Experiences from two Debt Operations in Jamaica
- There is No Small Enemy: The Effects of Tropical Storms during Pregnancy and Early Childhood on Children's Health

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