

TRADE MATTERS

NEW OPPORTUNITIES
FOR THE CARIBBEAN



THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP



TRADE MATTERS

NEW OPPORTUNITIES
FOR THE CARIBBEAN



THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP





TABLE OF CONTENTS

Abstract	5
Acknowledgments	5
Abbreviations and Acronyms	7
Introduction	8
Trade boosts job creation	11
Emerging Trade opportunities To Be Seized	15
The Promise of Inter and Intra Regional Trade Agreements	30
Key Policy Recommendations	34
References	36

ABSTRACT

Despite, the high openness to trade of Caribbean economies, the Caribbean's share in global trade has fallen. The rapidly changing environment for Caribbean exports present both opportunities and challenges for economies highly dependent on external markets. The report examines the potential benefits on the welfare of the Caribbean of redefining the relations with the Caribbean's main trading partners, of reaching out to new

growth poles and of redesigning regional preferential trade agreements. Using a gravity model, the report benchmarks how economies in the region have performed and calculates areas of revealed comparative advantage. It examines the roles that labor productivity, the business environment and the investment climate have had in shaping the pattern of trade, and concludes with a set of policy recommendations.

ACKNOWLEDGMENTS

This report is the result of collaborative efforts of a large team led by Calvin Zebaze Djiofack (GMFDR), and including Erwin H. R. Tiongson (GPVDR), Massimiliano Cali (GTCDR), Jose Daniel Reyes (GTCDR), Claire Honore Hollweg (GTCDR), Maros Ivanic (DECAR), Julie Saty Lohi (GMFDR), Mathias Thoenig (Consultant), Thierry Mayer (Consultant), Sashana Whyte (GMFDR), Tania Valeria Diaz Bazan (GPVDR), Charles Udomsaph (Consultant), Filipe Sousa (Consultant), Vanessa Uchiyama (Consultant), and Liliana Foletti (Consultant). Peer reviewers were Daniel Lederman, Leader Economist (LCRCE), Souleymane Coulibaly, Program Leader (AFTP3), Pavel Isa, Consultant, and Marcelo Olarreaga (University of Geneva). Patricia Holt (GMFDR), Miriam Beatriz (GMFDR), and Giselle

Velasquez (GMFDR) provided invaluable support in all aspects of the production of this report. William Shaw (Consultant) and David Yuravlivker (Consultant) provided invaluable editing support. Additional support and comments were provided by Raju Singh (Program Leader, LCC8C), Andrea Gallina (Coordinator Caribbean Growth Forum initiative, GGODR), Miguel Eduardo Sanchez Martin (GMFDR), and Dominique Njinkeu (GTCDR).

Finally, we would like to acknowledge the invaluable contributions from Cecile Niang (Program Leader, LCC3C), Francisco Galrao de Carneiro (Program Leader, LCC3C) and Christelle Chapoy (Senior Communications Officer, LCREC) for the production of this note. We would also like to thank Marialisa Motta (Practice Manager, GTCDR), Auguste Tano Kouame (Practice

Manager, GMFDR), and Sophie Sirtaine (Country Director, LCC3C), for overall supervision and guidance to the team.

This study is co-financed by the Caribbean Growth Forum (CGF) initiative and the Multi-Donor Trust Fund for Trade and Development.

The CGF is an initiative facilitated by the Compete Caribbean Program, the Inter-American Development Bank, the World Bank and the Caribbean Development Bank, with the support of the Department for Foreign Affairs, Trade and

Development of Canada, the United Kingdom's Agency for International Development, CARICOM Secretariat, the University of the West Indies, the European Union and Caribbean Export. It aims to facilitate a multi-stakeholder dialogue to identify practical solutions for the growth challenge in the Caribbean. To learn more about the CGF methodology and progress in each Caribbean country visit: <http://caribgrowth.competecaribbean.org/>

ABBREVIATIONS AND ACRONYMS

AFT	Aid for Trade	LDC	Least Developed Country
AKSI	Access to Key Services Index	LPI	Logistics Performance Index
BOP	Balance of Payments	LSCI	Liner Shipping Connectivity Index
BRICS	Brazil, Russia, India, China and South Africa	MERCOSUR	Mercado Común del Cono Sur (Southern Cone Common Market)
BRIICK	Brazil, Russia, India, Indonesia, China, and South Korea	MFA	Multi Fibre Arrangement
CARICOM	Caribbean Community	NAFTA	North American Free Trade Agreement
CBI	Caribbean Basin Initiative	OECD	Organization for Economic Co-Operation and Development
CBTPA	Caribbean Basin Trade Partnership Act	R&D	Research and Development
CGE	Computable General Equilibrium	RCA	Revealed Comparative Advantage
CSME	Caribbean Single Market Economy	RTA	Regional Trade Agreement
DBI	Doing Business Index	TCI	Technology Capabilities Index
DCI	Depth of Credit Information	TFP	Total Factor Productivity
DCII	Depth of Credit Information Index	TRAINS	Trade Analysis and Information Systems
EU	European Union	UNCOMTRADE/COMTRADE	United Nations Commodity Trade
GCI	Global Competitiveness Index	UNCTAD	United Nations Conference on Trade and Development
GCR	Global Competitiveness Report	UNIDO	United Nations Industrial Organization
GDP	Gross domestic products	WBES	World Bank Enterprise Survey
GETI	Global Education Training Initiative	WDI	World Development Indicators
GII	Global Innovation Index	WEF	World Economic Forum
ISO	International Organization for Standardization	WTO	World Trade Organization
LAC	Latin America and the Caribbean		



INTRODUCTION

Trade is essential for Caribbean countries' development and poverty reduction. Given their small market size, they are dependent on exports to produce manufactured products at efficient scale. And given their natural amenities, they rely on tourism as a major spur to economic activity. Trade in the Caribbean thus makes an essential contribution to increasing employment and reducing poverty by supporting growth. At the same time, the high dependence on trade also makes Caribbean economies vulnerable to external shocks. For example, the global financial crisis imposed substantial job losses in sectors such as tourism that the poor rely on for employment.

Caribbean countries face a rapidly changing environment for their exports, which presents both opportunities and challenges for economies highly dependent on external markets. In particular, the features of the new trade environment include: i) redefinition of the relations with main trading partners, including the United States, where Caribbean exports continue to enjoy preferential access under the Caribbean Basin Initiative, and the European

Union, through the recently signed Economic Partnership Agreement; ii) the increasing economic influence of the new growth poles (e.g. Brazil, China, Indonesia, Korea, and Russia); and iii) the redesign of the CARICOM regional trade agreement to implement the Caribbean Single Market Economy (CSME) as well as a number of preferential trade agreements within the region. These changes are likely to redefine the trading structure of the Caribbean countries, and through this restructuring to have important implications for the welfare of these economies. Understanding such implications is critical to designing appropriate domestic policy responses to changes in the trade environment, but also in terms of eventually re-shaping trade agreements and policies.

The new trade dynamics add to old challenges facing the Caribbean region. Despite fairly respectable economic growth and a high level of openness to trade, unemployment rates remain very high, averaging 10% for the region over 2002–09, and poverty reduction has been slow. Over the past five years, unemployment rates have averaged near or

Table 1. Country Groupings

Services Dependent	Light Manufacturing Dependent
Antigua and Barbuda	Dominican Republic
Bahamas, The	Haiti
Barbados	Agriculture and Food Dependent
Dominica	
Grenada	
Jamaica	Guyana
St. Kitts and Nevis	Belize
St. Lucia	Natural Resources Dependent
St. Vincent and the Gr.	
	Suriname
	Trinidad and Tobago

Note: This table presents the allocation of all Caribbean countries under analysis, according to their major source of export earnings.

Source: Author's construction

above double-digit levels in most countries in the region. Furthermore, progress toward reducing poverty has been relatively slow and remains uneven in the region. In the larger Caribbean countries, an estimated one-quarter to one-third of the population lives below the poverty line (measured at US\$1/day). The region's three most-populous countries (excluding Cuba) have poverty rates of 16.4% (Dominican Republic), 44.1% (Jamaica), and 56% (Haiti).

This report—based on recently published research¹ from the World Bank—seeks to improve the understanding of challenges by addressing the following questions:

- i. What is the usefulness of trade in terms of employment and poverty reduction in the Caribbean?
- ii. What has been the Caribbean performances exporting to international market, and particularly to emerging dynamic markets in recent years?
- iii. What are the key factors determining the performance of Caribbean exporters?
- iv. Going forward, what should be the Caribbean strategy in terms of trade agreements in order to secure further market access for their exporters?
- v. What are key recommendations to increase export, and boost opportunities for the poorest through trade?

While Caribbean economies are, in general, specialized in tourism and nautical services, as well as the production of agricultural and

¹ World Bank (2015). Reference to this publication is recommended for those seeking a more thorough analysis and comprehensive presentation of the data (including country-specific tables) and of the methodology used.

some light manufacturing merchandise, there is considerable heterogeneity in the level of economic development and diversification across their economies. In order to group Caribbean countries into relatively homogeneous groups, we divide them into four mutually exclusive groups (see Table 1) according to their most important source of export earnings:

(i) services economies (at least 60% of total exports in services); (ii) light manufacturing economies (at least 80% of trade in goods in light manufacturing); (iii) agriculture and food products economies (agriculture and food products as primary source of export earnings); and (iv) natural resources dependent (natural resources as primary source of export earnings).



TRADE BOOSTS JOB CREATION

Trade plays an important role in employment generation in the small, open economies of the Caribbean.

Firms involved in export activities account for 34 percent of formal employment in the region, slightly above the 32 percent average for other developing countries covered by the World Bank Enterprise Survey² (WBES: see Figure 1). The share of employment that is directly or indirectly generated by exports, which excludes exporting firms' workers who are involved in production destined for the domestic market, is 17 percent, again slightly above the average in other developing countries. Exporting firms account for 55 percent of manufacturing employment in the Caribbean, compared with 51 percent in other developing countries. The data for manufacturing are probably more reliable than for the total, as estimates of exports

from the hotel and restaurant sector, one of main sources of export revenues for several Caribbean countries, are probably understated.³ Thus export performance contributed to the significant increases in employment and in labor force participation achieved in many Caribbean countries over the course of the last decade.

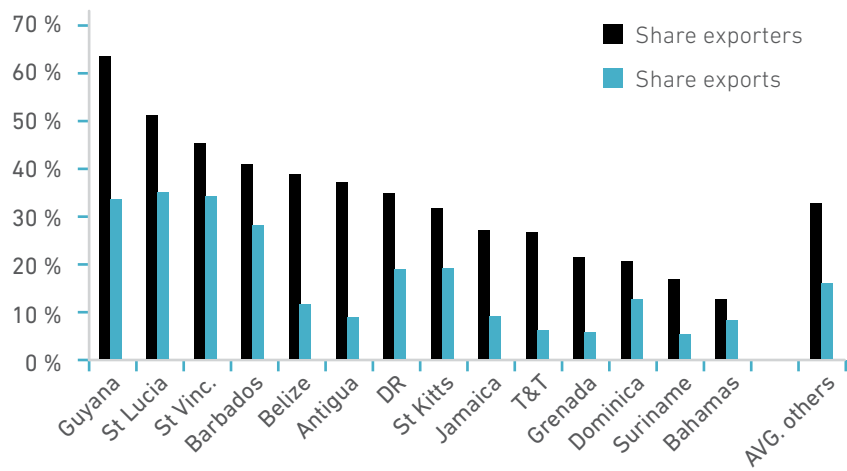
Exporting not only raises the demand for labor, but also can generate higher-quality jobs than in production for the domestic market.

Exporting firms in developing countries tend to be more productive and pay higher wages than do non-exporters. Caribbean exporters do not appear to pay significantly higher wages, or employ significantly more skilled workers, than in other developing countries. However, Caribbean exporters of manufactures employ a larger share of women than do non-exporters, and this difference is greater than in other developing countries.

² This analysis is based on the 2010 World Bank Enterprise Surveys (WBES)—conducted in all countries of the Latin America and Caribbean Region (LAC), except Haiti—which provide firm-level information that links export activities with employment.

³ The WBES questionnaire does not explicitly state that sales of services to foreigners should be treated as exports, so many respondents may have failed to report export revenues properly.

Figure 1 : Share of Exporters and Share of Exports (Direct or Indirect) in Total Employment



Source: Authors' calculation using WBES data.

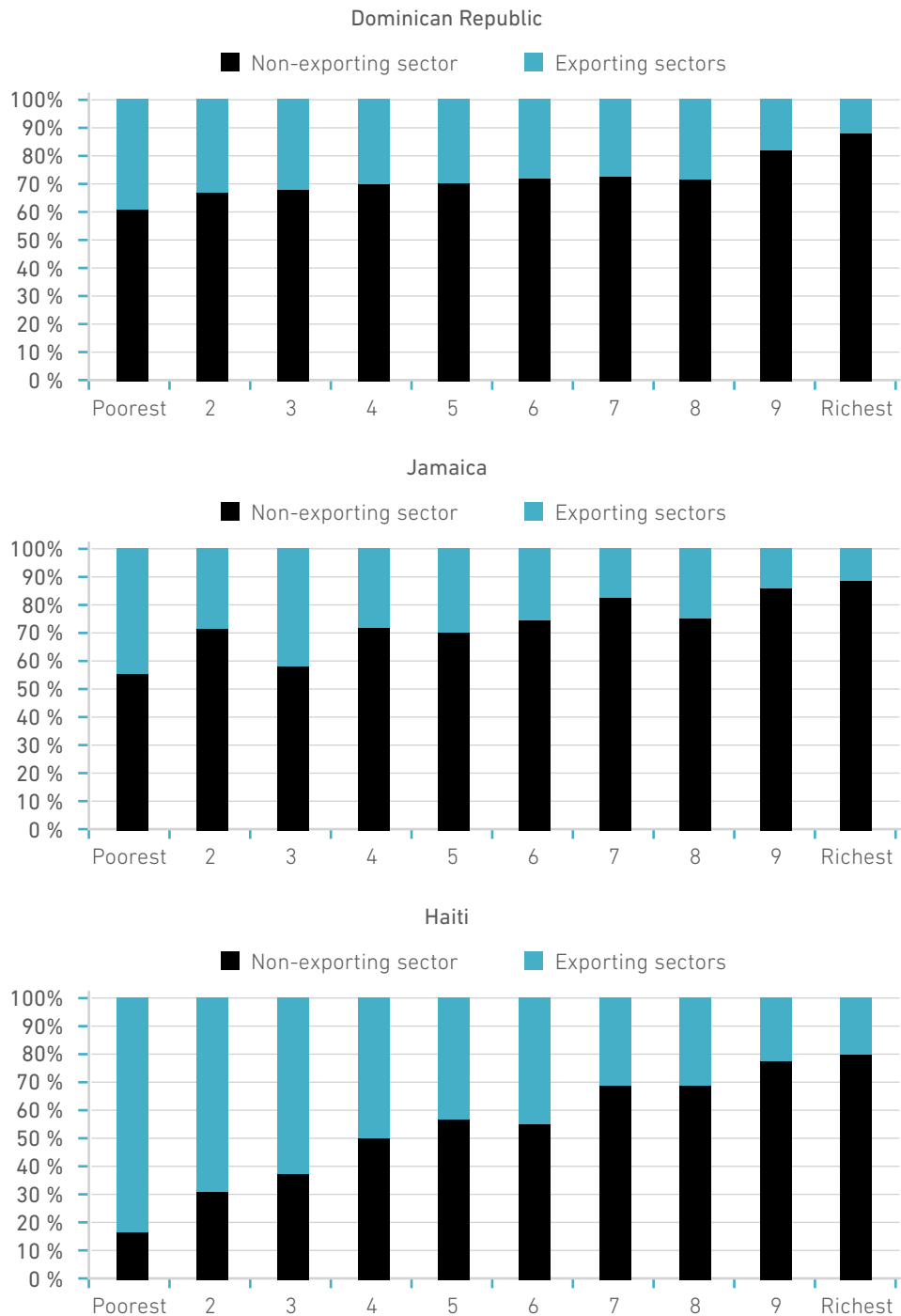
In all countries with adequate data, the poorest 40 percent of households have a higher share of their workers employed in exporting sectors than in non-exporting sectors (Figure 2). In Jamaica, for example, about a third of workers from the poorest 40 percent are employed in exporting sectors, compared to only about a fifth in richer households. Moreover, in every country, poor workers account for a larger share of employment in exporting firms than in non-exporting firms.

While trade is generally beneficial for poor Caribbean households, they have not benefited fully from the employment opportunities created by trade. Although poor households in most Caribbean countries have some access to employment opportunities in the exporting sectors, it appears that workers from the poorest households generally do not earn enough from their jobs in exporting sectors. In some cases, differences in earnings and productivity are driven by commensurate disparities in levels

of human capital. In a few cases, however, despite having comparable levels of human capital, workers from the poorest 40 percent of households earn significantly less than other households, for at least two possible reasons: First, there is some qualitative evidence to suggest that though some workers have similar numbers of years of education on paper, the quality of education actually received may not be the same. Second, where both the number of years and quality education received by households are comparable, poorer household seem unable to participate fully in productive activities boosted by scale and network effects. Instead many of them work as self-employed, own-account workers, often in informal enterprises.

While exporting can be beneficial, it can also make the economy more sensitive to international conditions. The global financial crisis resulted in a huge drop in global demand, and many firms involved in export activities

Figure 2 The distribution of Employment by Exporting and Non-Exporting Sectors



Source: Household surveys and World Bank staff calculations.

suffered substantial losses. In the Caribbean, however, the growth rate of employment in exporting firms during the crisis was not significantly different from that of non-exporting firms. While this does not show that the crisis had little impact on the Caribbean (incomes also were affected by changes in the prices of goods and financial sector instability), it is possible that the trade channel was not as significant as in other developing countries. Nevertheless, there are some indications that the crisis affected

employment in the Caribbean through exports. Before the crisis, Jamaican exporters achieved much more rapid growth in employment than non-exporters, so the rough similarity of employment growth rates between the two groups during the crisis may show an adverse effect. Also, in the most important export sector, which in the Caribbean is tourism, the growth rate of employment in exporting firms during the crisis was lower than in non-exporters.



EMERGING TRADE OPPORTUNITIES TO BE SEIZED

Like most small islands, Caribbean economies are relatively open to trade. Countries in the Caribbean are exceptionally open to international trade, with only one important exception: the Dominican Republic. The trade-to-GDP ratio is one of the most basic indicators of openness to foreign trade and economic integration. By weighting the combined exports and imports of goods and services relative to the size of an economy, the ratio gives an indication of the dependence of domestic producers on foreign demand and of domestic consumers and producers on foreign supply. There is a concave relationship between trade openness and per capita income; countries tend to trade more as incomes rise, but at a decreasing rate. Figure 3 and Figure 4 show the location of each country in the world along these two dimensions for the average periods of 2005–2007, and 2010–2012, respectively.⁴ The

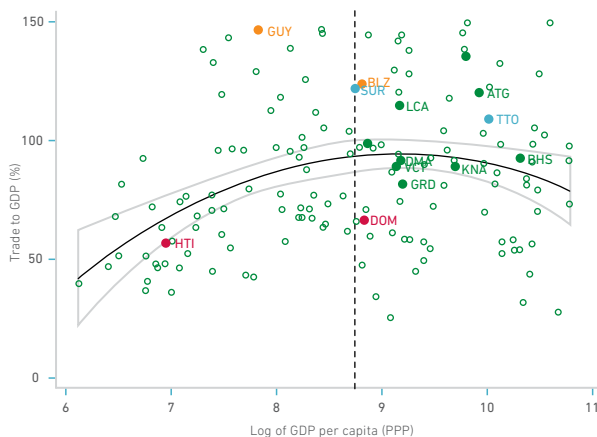
curve line is the expected trade openness given each country's per-capita GDP (and its square). The band around the curve represents a 95% confidence interval. Results indicate that the majority of Caribbean countries (identified by their 3-digit ISO codes and colored according to their country grouping) display a trade openness indicator that is larger than what is expected given their stage of development. The high level of insertion into international markets has remained stable over the last decade. It is important to note that the Dominican Republic, the largest country in terms of population and geographical size, not only under-trades both in terms of merchandise and services but also its trade openness indicator has been decreasing over time.⁵

the data, we use three-year averages for comparison purposes.

⁵ This is primarily explained by exports from free trade zones having fallen due to increased competition from Chinese textiles since the end of the Multi-fiber Arrangement in 2005.

⁴ In order to avoid one-year spikes that might skew

**Figure 3. Openness to Trade
(Merchandise and Services)
(Average 2005–2007)**



Note: Services dependent countries are colored in green; light manufacturing countries in red; natural resources countries in blue; and agriculture and food products countries in orange. The scatter plotters indicate the position of all countries in the World Bank classification of countries along two dimensions: trade openness and GDP per-capita.

Source: Author's computations using data from World Development Indicators.

**Figure 4. Openness to Trade
(Merchandise and Services)
(Average 2010–2012)**

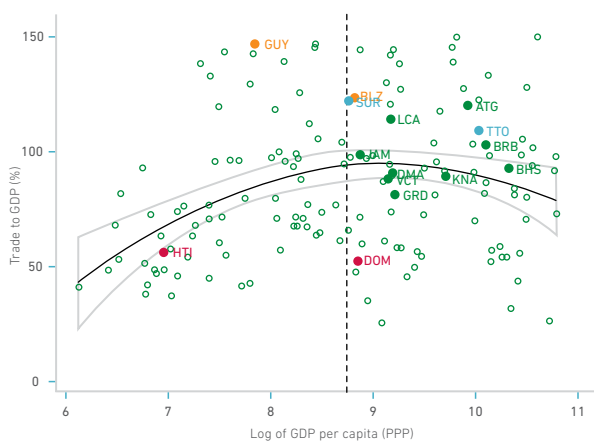
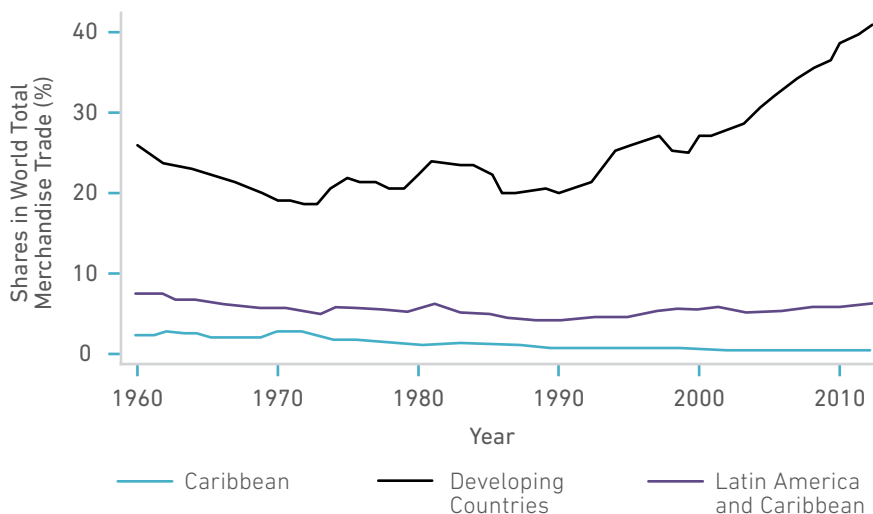


Figure 5: Market Share of the Caribbean in Global Merchandise Trade



Source: Author's construction, based on IMF data

The Caribbean's high integration with the global economy, however, stems more from imports than exports. For the average of the period 2010-2012, all services and light manufacturing economies had an average trade deficit of 16.6% and 25.4% of GDP, respectively. Most countries in the Caribbean have a services trade surplus—with the exceptions of Haiti, Belize, and Suriname. Nonetheless, only Suriname and Trinidad and Tobago—both natural resources dependent economies—show a substantial surplus in their overall trade balance. The high level of trade openness is due to a very large inflow of merchandise trade imports, which is common amongst small islands, which are usually dependent on foreign supply to maintain their quality of life (largely financed by remittances from abroad). This dependence allows them to devote productive factors into key economic sectors and specialize.

Indeed, the simple average trade deficit for our sample period for all the island countries in the world (including the Caribbean) is 9.7% of GDP.

The Caribbean region faces increasing “de-globalization”. The Caribbean's share of world merchandise exports has been declining steadily, falling from 3 percent in the 1970s to nearly a quarter percent in 2012 (Figure 5). The Caribbean's integration into the world economy has been much slower than other countries in the LAC region, and developing countries outside the region, that had similar levels of global integration 30 years ago. A policy focused on unilateral preferential access to the European and North American markets does not seem to have produced the expected results, given the Caribbean's international trade performance over this period.⁶

⁶ Under the Lomé and Cotonou agreements, Caribbean countries received unilateral preferential access to the

Figure 6: Merchandise Exports/GDP

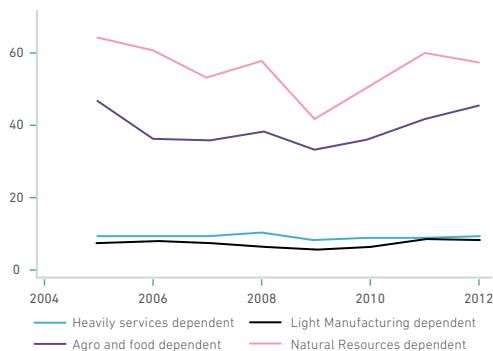
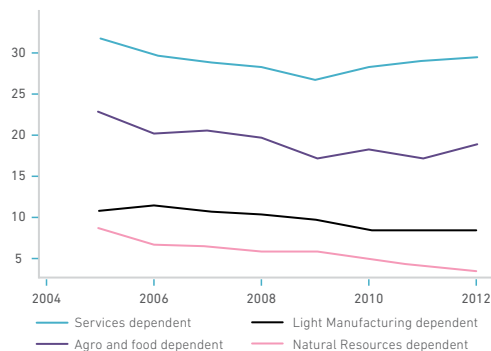


Figure 7: Services Exports/GDP



Source: Authors' computations using data from World Development Indicators.

Note: These figures show the evolution of merchandise and services exports as a share of GDP, for each one of our country groups.

The contribution of trade to Caribbean economies has been declining over recent years.

Merchandise exports have stagnated or declined (relative to GDP) since 2005 in all of the four country groups, with countries dependent on natural resources suffering the largest fall (Figure 6). Exports of services have performed even worse, falling relative to GDP in all of the country groups from the 2005 level (Figure 7). In countries dependent on light manufactures and on natural resources, services exports have fallen more or less continuously compared to GDP since 2005, while countries dependent on services and on agriculture saw a slight decline following the depths of the global financial crisis.

There is potential for greater integration with new growth poles. The Caribbean share of both merchandise exports and tourism services

that are directed to the new growth poles (large, rapidly growing developing economies) has risen from 2005, yet the levels remain extraordinarily low.⁷ The share of merchandise exports to the new growth poles from Caribbean countries dependent on natural resources and light manufacturing increased sharply from 2005-12, but remained below 6 percent (Figure 8). The share of tourism receipts from the new growth poles for the resource dependent countries also increased sharply, but only to 8 percent by 2010 (Figure 9). In contrast, the share of tourism arrivals from the new growth poles for the services dependent economies has remained insignificant and flat.

The share of Caribbean exports of merchandise going to the new growth poles could be much higher. Exports from the Caribbean to the new growth poles are lower than predicted by a gravity model of trade

EU for traditional agricultural exports. Similarly, the region has enjoyed 30 years of unilateral preferential access to the United States for certain products under the Caribbean Basin Initiative (CBI) and subsequently through the Caribbean Basin Trade Partnership Act (CBTPA).

7 For this analysis, the new growth poles are defined as Brazil, Russia India, China, as well as Indonesia and South Korea.

Figure 8: Merchandise Exports to New Growth Poles (as a share of total merchandise exports)

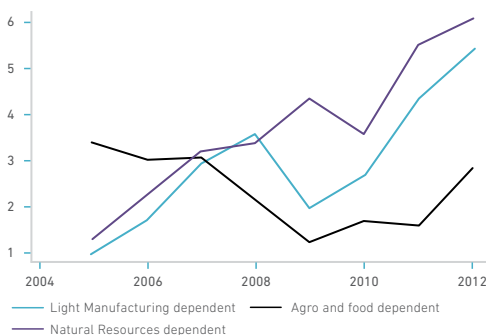
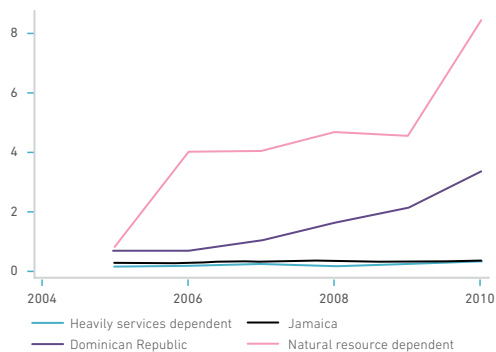


Figure 9: Tourism Arrivals from New Growth Poles (as a share of total tourism arrivals)



Source: Authors' computations using data from COMTRADE and World Tourism Organization.

Note: The lines indicate exports to the new growth poles economies as a share of total exports, for merchandise trade (left panel) and tourism arrivals (right panel). The lines represent simple averages across countries in each country group. Services dependent countries are not considered for the merchandise analysis and agro and food dependent countries for the services analysis, because of their extremely low level of exports. Tourism arrivals are presented for the Dominican Republic, Jamaica, the rest of services dependent countries, and the natural resource countries.

that reflects various determinants of bilateral exports, particularly size, income level, and distance.⁸ Table 2 compares the actual and predicted values for the share of each country's merchandise exports going to the new growth poles in total merchandise exports, expressed as a ratio. An observation that is larger (smaller) than one indicates that the observed export relationship is larger (smaller) than what is predicted by the gravity model (larger than

expected trade relationships are colored in green, smaller than expected in red). There are three main results from this analysis: (i) with the exception of Bahamas, St. Kitts and Nevis, St. Lucia, Belize, and Haiti, exports to Brazil from Caribbean countries are smaller than expected; (ii) exports to the new growth poles from light manufacturing and agricultural-based countries are generally in line with the model predictions; and (iii) Trinidad and Tobago oil is directed mainly to the old growth poles and to India. While there may be several reasons that bilateral exports fall below the gravity model predictions, these results may indicate the potential to increase Caribbean merchandise exports to the new growth poles.

⁸ The gravity model predicts the level of exports between two economies, based on size, income level, distance, whether countries share a common border, whether they share a common language, and whether one was a colony of the other or they were colonies of the same country. The analysis covers bilateral merchandise exports among 213 countries over 2005-11, and tourism receipts (or arrivals) among 194 countries over 2005-10. Gravity models have been used extensively in the literature on international trade.

Table 2: Benchmarking Caribbean Merchandise Exports to New Growth Poles

(Observed Value / Predicted Value in 2011)

		Brazil	China	India	Indonesia	Korea	Russia
Services countries	Antigua and Barbuda	0.02	0.03	0.21	9.03	0.20	69.08
	Bahamas, The	12.35	0.01	22.96	0.03	0.18	2.59
	Barbados	0.32	0.03	1.49	0.09	0.41	0.04
	Dominica	0.06	1.06	3.63	0.07	0.97	0.03
	Grenada	0.06	0.02	21.83	0.13	0.00	--
	Jamaica	0.15	0.17	0.66	0.04	0.61	53.50
	St. Kitts and Nevis	28.91	1.25	0.06	--	0.92	0.81
	St. Lucia	0.65	0.64	39.96	1.08	0.68	0.43
	St. Vincent and the Grenadines	0.02	1.65	0.15	0.25	1.03	0.46
Ligth Man. Cou.	Dominican Republic	0.42	1.05	0.21	0.86	1.87	1.87
	Haiti	1.35	2.35	6.08	4.63	3.42	0.59
Agr. Cou.	Belize	38.14	0.62	1.00	0.02	0.53	0.59
	Guyana	0.01	2.83	2.56	1.78	1.18	1.36
Nat. Res. Cou	Suriname	22.89	2.54	21.18	2.18	28.40	0.07
	Trinidad and Tobago	--	0.06	74.31	0.01	0.01	--

Source: Authors' calculations using mirror data from COMTRADE.

Note: This table shows the observed bilateral export value in 2011 as a ratio of their expected value predicted by the gravity model. The total value of merchandise includes trade in all products. Red (green) cells indicate that the observed value is smaller (larger) than what is predicted by the econometric model. COMTRADE data does not report exports from Trinidad and Tobago to Brazil and Russia; from Grenada to Russia; or from St. Kitts and Nevis to Indonesia.

Tourism exports of Caribbean countries to the new growth poles performed relatively better compared with merchandise trade.

Some Caribbean countries export more tourism services than expected to the new growth poles, given each country's economic size, bilateral distance, and the other determinants (Table 3). This is particularly true for tourism exports to Russia from the Dominican Republic and the Caribbean countries dependent on services.

Tourism exports to China from the countries dependent on services (except Dominica) and the Dominican Republic are less than expected, but exports to China from the natural resource dependent countries are greater than expected. Brazil also has fewer tourists arriving from services dependent countries than expected. In general, the United States and Europe remain the primary source of tourism to the Caribbean.

Table 3. Benchmarking Caribbean Tourism Exports to New Growth Poles

(Observed Value / Predicted Value in 2009-2010)

		Brazil	China	India	Indonesia	Korea	Russia
Services countries	Bahamas, The	4.09	0.57	0.38	0.88	1.00	1.99
	Barbados	0.56	0.88	1.04	1.07		2.73
	Dominica	0.07	2.00				
	Grenada	0.59					
	Jamaica	0.55	0.87	0.48		0.42	1.81
Ligth Man. Cou.	Dominican Republic	2.14	0.09	0.41		0.33	12.09
Nat. Res. Cou	Suriname	2.26	5.08	1.48	1.52	0.22	
	Trinidad and Tobago	0.57	3.28	1.13	0.50	0.50	0.14

Source: Authors' computations using data from United Nations World Tourism Organization.

Note: This table shows the observed bilateral tourism arrivals in 2009/2010 as a ratio of their expected value predicted by the gravity model. Red (green) cells indicate that the observed value is smaller (larger) than what is predicted by the econometric model. An empty cell signifies that no bilateral tourism export information is available for any Caribbean country in the respective group and the corresponding growth pole country.

The comparison of the predicted versus the actual level of tourism revenues given above pertains only to countries that currently export some tourism services to the new growth pole countries. In addition, many Caribbean countries, including Antigua and Barbuda, Belize, Guyana, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Haiti, did not have any tourist arrivals from new growth pole countries in 2009 or 2010. The gravity model analysis indicates that there may be important potential for tourism receipts in these countries from the new growth poles, particularly from Brazil and India.

Caribbean trade performance is reflected in the inability of the region to diversify its exports toward higher value added products.

In many (but not all) Caribbean countries, merchandise exports are concentrated in a small number of sectors with relatively low value added. This lack of diversification, and high reliance on goods with minimal processing, tends to limit the potential markets that Caribbean countries can reach. To explore this issue, we calculated revealed comparative advantage indices for the 15 countries in the Caribbean region in 16 merchandise sectors. These indices show whether the share of a product in a country's trade is greater than the share of that product in global trade.⁹

⁹ This is a measure of whether a country has an advantage in producing in a particular sector, compared to other countries. Technically, revealed comparative advantage (RCA) index for country in

Countries and sectors with relatively high revealed comparative advantages include Haiti (but only on one product, textiles), Antigua and Bermuda (vegetables and transportation), St. Kitts and Nevis (animal and machinery), St. Vincent and Grenadines (vegetables, metals, and transportation), and Trinidad and Tobago (organic fuels, chemicals, and metals). Moreover, the sectors of animal products, vegetables, minerals, and foodstuffs account for 31 of the 65 observations representing sectors in which the RCA index is greater than one. While the level of processing differs considerably within sectors, nevertheless these sectors tend to require limited processing. As countries that export more sophisticated, higher value added products tend to achieve higher growth rates, many Caribbean countries' specialization in these low value added sectors may limit their potential growth.

Caribbean services exports may offer greater potential for the future than merchandise exports. Caribbean countries' revealed comparative advantage in services is also highly concentrated, in the travel and communications sectors. Nevertheless, other services sectors are demonstrating more dynamism. Services sector exports declined with the financial crisis (by 5.4 percent in countries dependent on services between 2008 and 2009) and the subsequent recovery has been anemic. However, the crisis depressed global services exports in general; to determine how well Caribbean countries are performing in services trade, we compared changes in these

countries' services exports with global trends. In 2010-11, many Caribbean countries lost market share in their principle services exports, but gained market share in less important yet more dynamic export sectors (e.g. construction, insurance, finance, information, royalties and license fees). Nevertheless, these sectors remain a small share of total Caribbean services exports.

The Caribbean countries' ability to exploit trade opportunities may be limited by low productivity of its firms. According to data from the World Bank Enterprise Surveys (WBES), Caribbean exporters have lower productivity relative to their competitors in the larger LAC economies. Although there is no substantial difference between the productivity of non-exporters in both Caribbean and non-Caribbean countries, exporters from other LAC countries are 43 percent more productive than exporters from Caribbean countries. However, most of this difference comes from large economies in Latin America, since the productivity of other small regional economies is even lower than that of the Caribbean countries. One possible explanation might be related to economies of scale—firms may tend to be larger in large economies. Caribbean firms tend to be smaller than firms in Central and South America—although in some respects, exporting is a more important activity in the Caribbean. Exports also account for a larger share of Caribbean exporting firms' total revenues than in Central and South America, whether exporting is defined as direct or indirect exports. These findings are consistent with the fact that Caribbean domestic markets tend to be smaller than in the rest of the region. Exporting activity in the Caribbean is predominantly in

sector is calculated as follows: where x is exports from in sector, y is total exports of, z is exports from the world in sector, and w is total world exports.

manufacturing (29 percent of firms are direct exporters), hotels and restaurants (26 percent), and transport, storage and communications (22 percent), while the incidence of exporting in other sectors is much smaller.¹⁰ A similar sectoral pattern is seen if indirect exporters are also considered.

Assessing the Key Trade Determinants Indicators

We measured the quality of policy and infrastructure using a set of available quantitative indicators, that include: (i) trade policy, measured by the level of tariff rates; (ii) trade facilitation, measured by the World Bank's logistics performance index (LPI) and the cost to export a container; (iii) the efficiency and availability of shipping services, measured by UNCTAD's liner shipping connectivity index (LSCI); (iv) the extent of innovation, measured by investment in research and development (R&D) and the number of patent applications; and (v) the business regulatory environment (proxied by the cost to register property), the cost of starting a business, and the depth of the financial sector.

The impact of high tariffs should not be exaggerated. The Caribbean region's weighted average tariff rate is higher than all other

regions, except South Asia (Table 4). However, it is worth noting that while Caribbean average tariffs level (estimated at 11.6 percent) is significantly higher than that of the small island economies (7.4 percent), it is just slightly higher than that of the group of the successful small islands (9.8 percent).¹¹ Moreover, econometric analysis indicates that trade policy (measured by tariff levels) has had only a marginal impact on trade performance.

The Caribbean region's average score on the World Bank' Logistics Performance Index (LPI) was lower than in any other region.¹²

All Caribbean countries, except The Bahamas, perform below the Latin American average on all LPI components. The Caribbean also performs below the successful small island economies (Table 5). This suggests that the weak development of trade logistics might be a factor explaining trade performances difference between the Caribbean and this group.

Caribbean maritime connectivity is relatively limited compared to other regions, as well as when compared to other small island economies. One important indicator of the efficiency of maritime trade, and thus the magnitude of transport costs, is the Liner Shipping Connectivity Index (LSCI), which measures the development of containerization

10 The WBES questionnaire asks "What percent of this establishment's sales were: (a) National sales; (b) Indirect exports; and (c) Direct exports. As the term "sales to foreigners" was not explicitly used when interviewing establishments in the service sector, export activity may be underestimated in services. Also, given that exporting activities are not included among the dimensions of sample stratification, caution should be used when considering the statistics generated, especially for construction and computer and related activities, which have relatively small sample sizes.

11 Successful Small Islands are defined in this study as Small Island Economies that gained market share in global trade over the last three decades.

12 The World Bank's Logistics Performance Index (LPI) measures the quality of transport and logistics services, based on six core dimensions: customs, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness. The overall average reflects the average across the six dimensions (see <http://data.worldbank.org/data-catalog/logistics-performance-index>)

Table 4: Regional Average Tariffs of Origin, 2000 to 2010

Region	Weighted Average	Standard Deviation
European Union	4,4	9,4
Europe and Central Asia	6,3	6,2
East Asia	6,5	10,4
North America	7,5	8,8
Middle East and North Africa	10,4	17,7
Sub-Saharan Africa	11,5	9,6
South Asia	13,5	10,9
Latin America	8,8	7,2
Caribbean	11,6	11,9
All Non-Caribbean Islands	7,4	8,6
Successful Non-Caribbean Islands	9,8	10,2

Source: Authors' Calculations using TRAINS

in a country's maritime transport.¹³ Despite some improvement in the most recent data compared to the average from 2004 to 2011, the average LSCI of the Caribbean countries remains the lowest of all regions. And while performance varies within the region, 9 of the 13 Caribbean countries with available data have lower scores than the average level in every other region, including Sub-Saharan Africa. The Bahamas was the best Caribbean performer as of 2012, while Jamaica had the highest annual average

for the period from 2004 to 2011, reflecting its role as a regional hub (Table 6).

The Caribbean under-performs on patents, high-tech exports, and innovation. Innovation is a key determinant of trade, as it enables firms to produce more at lower cost, achieve economies of scale, and therefore expand market share. Overall the Caribbean performance in innovation is very weak, although there is an important degree of heterogeneity across the region. The 2013–14 Global Competitiveness Report (GCR) ranks 150 economies in terms of innovation performances, based on 6 criteria: the capacity for innovation, the quality of scientific research institutions, company spending on research and development (R&D), university-industry collaboration in R&D, availability of scientist and engineers, and Patent Cooperation Treaty

¹³ The Liner Shipping Connectivity Index (LSCI) was developed by the UNCTAD, and includes: 1) the number of companies that provide services from/to a country's ports; 2) the size of the largest ship providing services from/to a country's port (measured in Twenty foot Equivalent Units--TEU); 3) the number of services that connect the country's port(s) to other countries' ports; 4) the total number of ships operating from/to the country's port; and 5) the total container carrying capacity of those ships.

Table 5: Cross Regional Comparison on the Average LPI Score

Region	Average Levels of Overall Logistics Performance Index and its Six Dimension by Regions													
	Overall LPI Score	Customs		Infrastructure		International Shipment		Logistics Competence		Tracking and Tracing		Timeliness		
		Average 2007 - 2012	2014	Average 2007 - 2012	2014	Average 2007 - 2012	2014	Average 2007 - 2012	2014	Average 2007 - 2012	2014	Average 2007 - 2012	2014	
East Asia	3.05	3.14	2.82	3.03	2.90	3.08	3.02	3.08	2.99	3.11	3.08	3.13	3.48	3.41
Europe	3.45	3.53	3.24	3.38	3.41	3.49	3.31	3.37	3.43	3.54	3.50	3.53	3.84	3.91
North America	3.88	3.89	3.66	3.67	4.05	4.12	3.49	3.46	3.90	3.96	4.02	4.05	4.23	4.16
Middle East & North Africa	2.79	2.79	2.55	2.58	2.67	2.71	2.76	2.71	2.69	2.75	2.76	2.82	3.29	3.19
Sub-Saharan Africa	2.41	2.47	2.22	2.29	2.15	2.27	2.44	2.49	2.35	2.42	2.40	2.48	2.85	2.84
	2.75	2.84	2.47	2.64	2.56	2.63	2.71	2.88	2.69	2.79	2.80	2.88	3.28	3.18
South Asia	2.43	2.57	2.22	2.35	2.17	2.32	2.48	2.67	2.39	2.54	2.38	2.53	2.90	2.98
Europe & Central Asia	2.58	2.72	2.32	2.51	2.37	2.56	2.63	2.79	2.47	2.61	2.59	2.69	3.08	3.11
Small Islands	2.45	2.60	2.23	2.57	2.24	2.46	2.48	2.64	2.31	2.54	2.46	2.57	2.91	2.80
Caribbean	2.40	2.59	2.20	2.56	2.17	2.40	2.42	2.64	2.27	2.51	2.43	2.51	2.84	2.89
BRIC	3.02	3.06	2.58	2.65	2.92	3.02	2.98	3.04	3.07	3.07	3.07	3.12	3.50	3.48

Source: Authors' calculation using the World Bank's LPI data.

Table 6: Average LSCI Performance across the Caribbean Countries

Liner Shipping Connectivity Index (LSCI)			
Sub-Groups*	Country	Average LSCI (2004 to 2011)	Most Recent Data (2012)
Agriculture Dependent (7.20)	Belize	2.8	9.99
	Guyana	4.33	4.06
Services Dependent (10.78)	St. Vincent and the Grenadines	3.9	4.02
	St. Lucia	3.93	4.55
	St. Kitts and Nevis	4.66	2.67
	Barbados	5.32	4.82
	Bahamas, The	19.04	27.06
	Jamaica	23.86	21.57
Natural Resources Dependent (11.69)	Suriname	4.23	4.48
	Trinidad and Tobago	13.89	18.9
Light Manufacturing Dependent (14.40)	Haiti	4.29	5.08
	Dominican Republic	18.53	23.72
	Dominica	2.32	2.08
Other Countries (2.84)	Antigua and Barbuda	2.46	2.41
	Grenada	3.53	4.04

Source: Authors' calculations using UNCTAD data.

*Sub-Group average in parentheses.

(PCT) patent applications. Table 7 shows current rankings for individual Caribbean economies in selected sub-indexes from the *Global Competitiveness Report*. Barbados is the only Caribbean economy among the 50 top countries in terms of innovation.¹⁴ Haiti, Suriname, Dominican Republic and Trinidad and Tobago were ranked amongst the lowest countries in

the world in innovation. As expected, results were similar for the sub-indexes.¹⁵

¹⁴ Rankings are available for Barbados, Dominican Republic, Guyana, Haiti, Jamaica, Suriname, and Trinidad and Tobago.

¹⁵ Similar results were found in the 2013 Global Innovation Index (GII). In terms of performance, only Barbados (48) ranked in the top 50 economies, and the remaining Caribbean countries ranked between positions 78-82 out of the 142 economies measured by the index. The GI includes seven pillars divided into two areas: elements supporting innovative activities (institutions, human capital, infrastructure, market sophistication and business sophistication), and products of innovation (scientific and creative).

Table 7: 2013-2014 Global Competitiveness Index – Rankings of selected sub-indexes of Innovation Pillar

Country	Innovation Index	Capacity for Innovation	Quality of scientific research institutions	Company spending in R&D	University industry collaboration in R&D	Availability of scientists and engineers	PCT patents, application ranking	PCT patents, applications/million pop
Barbados	48	123	100	117	102	48	63	11.3
Dominican Republic	115	113	128	114	108	123	73	0.29
Guyana	57	60	48	87	68	103	76	.
Haiti	144	140	145	143	141	133	126	.
Jamaica	83	38	83	31	62	71	126	0.56
Suriname	125	98	126	96	91	125	83	0.67
Trinidad and Tobago	107	81	45	78	39	63	32	1.42

Source: World Economic Forum (WEF): Global Competitiveness Report .

The weak performance of the Caribbean on innovation is also reflected in the number of patent applications and the technological content of exports. The number of patent applications in the Caribbean by both residents and non-residents has been lower than that of every other region in the world in recent years.¹⁶ The level of innovation seems to be another key factor explaining the difference between the Caribbean and the successful small island economies. While the share of high technology in total manufacturing exports from successful small islands was 15 percent on average

between 2005 and 2012, it was only 5 percent in the Caribbean region.

While the business environment in the Caribbean has improved substantially in recent years, it has not done so as rapidly as in many other developing countries, and important gaps remain in key areas. According to the World Bank's Doing Business Index (DBI), starting a business in the Caribbean requires more time, on average, than any other region, and costs more (relative to per capita income) than any other region except Sub-Saharan Africa (Table 8). Registering property in the Caribbean requires more time than in any other region except South Asia, and costs more (relative to the property's value) than any other region except Sub-Saharan Africa. The Caribbean also scores relatively poorly on most indicators of

¹⁶ The number of patent applications varies widely across the region, from 2 in Dominica to 107 in Trinidad over the 2000–2011 periods. However, the number of applications per capita is uniformly very low, much lower than in other developing regions.

Table 8: Regional Averages: Starting a Business, Indicators

Region	Doing Business index: Starting a Business					
	Procedures (number)		Time (number of days)		Cost (as % of per capita income)	
	Average 2004-2012	2013 Data	Average 2004-2012	2013 Data	Average 2004-2012	2013 Data
North America	1.5	1	4	5	0.6	0.6
Europe and Central Asia	8.31	4.3	28.2	12.9	10.7	10.7
European Union	6.68	5.6	21	13.4	9.2	9.21
East Asia	7.81	7.2	38.1	29.9	33.3	33.3
Sub-Saharan Africa	9.6	7.4	48	28.6	139.7	139.71
South Asia	8.78	7.8	32.6	16.1	46.2	45.54
Middle East and North Africa	9.23	8	25.6	15.4	40	39.96
Latin America	10.74	8.7	45.2	26.6	43.5	43.49
Caribbean	7.8	7.4	78.9	68.4	43.1	22.1
All Small Islands	7.8	7.2	61.8	45.6	49.4	28.6
Non-Caribbean	7.6	6.8	47.6	26.6	45.5	20.2
Successful Islands	7.3	5.3	18.6	6.5	14.1	7.4

Source: Authors' Calculation using Doing Business data.

the strength of the credit system. For example, the Caribbean has the lowest average regional score on the depth of credit information index (DCII), which measures the rules that affect the scope, accessibility, and quality of credit information available to the public and private business operators.¹⁷ The Caribbean region's performance is rated more highly in access

to electricity, with the lowest number of days required to get electricity, as well as lower costs and number of procedures required to obtain this service compared to most other regions.

The business environment in the Caribbean also performs significantly below that of successful small economies. For all the six doing business indicators considered, the Caribbean performs below the successful small islands. Remarkably, although doing business performances in successful small islands were better than those of the Caribbean in early 2000,

¹⁷ Data are available at the World Bank's Doing Business project (<http://www.doingbusiness.org/>). See the definition of this indicator at <http://search.worldbank.org/data?qterm=depth%20of%20credit%20information&language=EN>

the pace of reforms in these countries has been faster than in Caribbean region.

Exporting firms are significantly penalized by limited access to key services (electricity, telecommunications and transport services) and a lackluster rate of innovation in the region. To analyze the extent to which innovations and access to services are related to firms' productivity with a particular focus on exporting, we constructed two indices: the technological capabilities index (TCI: which captures and integrates a variety of objective and subjective information into coherent measures of a firm's capacity to establish, operate, and transfer technology), and the access to key services index (AKSI: which captures access to electricity, communications and transport services). Both of these indices are based on responses from the World Bank Enterprise Surveys. Regression analysis shows that both the level of technological capability (as indicated

by TCI) and access to key services (as indicated by AKSI) are positively and significantly related to firms' labor productivity. This suggests that policies that promote technological capability and improve access to services could boost labor productivity in the Caribbean. When assessing which aspects of innovation or key services are more effective, results suggest the following: innovation in production (ranging from basic skills such as adoption, operation, and maintenance, to more advanced knowledge such as adaptation, improvement, and equipment, to ultimately the highest and most demanding technical proficiencies of research, and design) are the most efficient; while access to business key services which represents services required to connect firms to suppliers and clients, basically telecommunication services, including telephones and internet, and transportation have the most impact.^{18,19}

18 TCI draws on the taxonomy developed by Lall (1992), which categorizes firm-level technological capabilities into investment, production, and linkages activities.

19 Information on service access in the WBES can be classified into two groups. Access to Operational Key Services (AOKS), which represents services affecting a firm's ability to produce goods and services for customers, is based on four measures of access to electricity from the grid. Access to Business Key Services (ABKS), which represents services required to connect firms to suppliers and clients, is based on five separate measures of a firm's access to telecommunication services, including telephones and internet, and transportation.



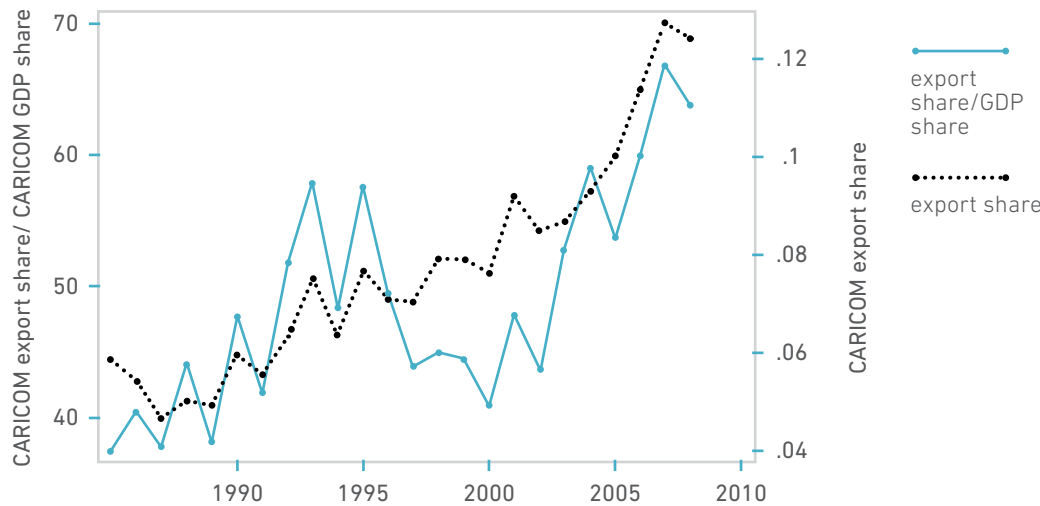
THE PROMISE OF INTER AND INTRA REGIONAL TRADE AGREEMENTS

Intra-regional trade has been boosted by steady progress in building institutions and improving policies. From the early days of their independence, Caribbean countries have pursued regional integration to ease the constraints that their small size imposes on economic development, including a lack of domestic competition (due to limited economies of scale), the limited capacity to adjust to changes in the global marketplace, and the limited negotiating power of small Caribbean economies vis-à-vis their main trading partners (the United States, the European Union, and Canada). While progress has been slow, important steps have been taken towards defining regional integration policies and institutions, beginning with the creation of CARICOM in 1973 and followed by the establishment of the CARICOM Single Market in 2006. This process is planned to reach a culminating point in 2015, the projected date for

the consolidation and completion of the Single Market and the Monetary Union.

The CARICOM agreements have driven a rapid increase in intra-regional trade. Contrary to the widespread perception that Caribbean intra-regional integration is limited, the share of intra-regional exports in total exports increased substantially over the last few decades. The rising share of intra-regional in total exports has been driven by the increasing attractiveness of Caribbean destinations to Caribbean exporters, not by more rapid growth in the Caribbean than in extra-regional trading partners (Figure 10). That is, the share of intra-regional exports in total Caribbean exports has risen much faster than the share of Caribbean GDP in world GDP. This intra-regional attractiveness was already large in 1985, when Caribbean intra-regional trade was 40 times larger than exports outside the region (once we control for destination market

Figure 10: Relative Regional Specialization – Accounting for Market Sizes



Source: Authors' construction using COMTRADE data

sizes), and rose to 68 times larger by 2010.²⁰ Moreover, the rise of Caribbean intra-regional exports does not reflect geographical proximity. The share of total Caribbean exports going to Latin American countries that are not CARICOM members (Guatemala, El Salvador, Nicaragua, Costa Rica and Panama), and that as destination countries are comparable in terms of size and geographical location to Caribbean countries, has remained roughly constant at 1.5 percent. This suggests that CARICOM agreements might be the driving force behind the rise in trade within the region. Skepticism over the benefits from the CARICOM trade agreement has centered on the limited growth in Caribbean

exports and the small amount of intra-regional trade. Slow Caribbean export growth (relative to the growth in Caribbean GDP and in global trade) partly reflects the formation of regional trade blocs (principally NAFTA and the European Union) that impaired the competitive position of Caribbean exporters. And while intra-Caribbean exports are equal to only about 5 percent of GDP, this is entirely due to the small size of Caribbean markets.

The implementation of a common market would lead to a substantial rise in exports in the Caribbean. The decline in trade barriers should lead to an intensification of competitive pressures, and thus an improvement in the quality and quantity of the products of Caribbean firms. As a result, intra-regional exports would rise, nominal GDP would increase, and the price level would fall. While Caribbean firms would be more competitive on world markets,

²⁰ Despite this increase, this measure of regional integration (the GDP-scaled intra-regional export share) remains well below the approximately 300 average for EU15 and NAFTA, admittedly among the most integrated trade blocs in the world.

Table 9: Implementation of a Common Market

Country	No Common Market		With a Common Market		Change Due to Common Market (%)		
	Exports/GDP (%)		Exports/GDP (%)		Exports/GDP (%)		
	Regional	World	Regional	World	Total	Regional	World
BLZ	5.54	59.65	8.8	57.58	1.81	58.79	-3.48
BRB	9.34	21.47	15.41	21.92	21.15	64.9	2.11
DOM	.23	31.91	.36	31.98	.62	58.49	.21
JAM	1.59	51.13	2.7	52.65	4.99	70.16	2.97
LCA	16.86	49.85	26.1	45.88	7.9	54.82	-7.96
TTO	12.16	35.36	17.04	32.29	3.79	40.11	-8.7
TOTAL CARICOM	5.02	35	7.23	34.01	3.06	44.13	-2.83

Note: The benchmark year is 2006. Col.2-5 report ratios of export over Output. Col.6- Col.9 report changes

Source: Authors' construction using COMTRADE data

their production costs would rise due to more intense competition from other Caribbean firms for labor and materials. Countries that already direct a large share of their exports to the region (e.g., St. Lucia and Barbados) would enjoy the greatest benefit (Table 9). This initial share mostly depends on geographical features (e.g. spatial proximity with other countries of the Caribbean) and on the initial economic size.

The gains of deeper trade integration with North America or Latin America would exceed the gains from implementation of a common market. Clearly, the gains to Caribbean exports of joining NAFTA would be large, given that the United States is the Caribbean's major trading partner. Moreover, the agreement also would end the preferences that Mexican exporters enjoy on the US market, compared to Caribbean

exporters. The gains for the Caribbean of entry into NAFTA would be six times the size of the gains from implementing a Caribbean common market. Here, again, Caribbean countries that already trade intensively with the NAFTA zone – due to spatial proximity or a large economic size -- would enjoy the greatest benefit. The benefits for the current members of NAFTA are negligible, as the Caribbean countries are small economies compared to the North American trading bloc.

The impact of Caribbean countries joining MERCOSUR also would be substantial, although smaller than the impact of joining NAFTA. The gains to the Caribbean are about 2.5 times larger than the gains from implementing a common market. These gains remain smaller than the impact of joining NAFTA, despite the fact that Caribbean exports are more sensitive to growth

in MERCOSUR than in the NAFTA members, because Caribbean exports to MERCOSUR are much smaller than Caribbean exports to NAFTA. Potential preferential agreements with emerging economies, however, would generate modest gains at the very best. Compared to deeper integration with NAFTA, the gains from

integration with the emerging economies would be small, often of an order of magnitude smaller, with the noticeable exception of trade with China. As in other simulations, the size of the impact is mostly related to the initial level of trade relations.



KEY POLICY RECOMMENDATIONS

There is considerable potential for boosting trade and accelerating growth through deepening trade integration with traditional partners and exploring opportunities offered by new growth poles.

Market access—including adoption of the Caribbean common external tariff and deeper integration with NAFTA and MERCOSUR—would have a significant role in increasing trade and spurring growth in the region. Deeper trade integration with North America through entry of Caribbean countries into NAFTA would generate larger gains than that of integration with MERCOSUR or the implementation of a common market. However, reducing tariff should not be a priority for Caribbean. Although Caribbean countries trade to new growth poles increased in recent years, linkages with these countries remain low, suggesting considerable untapped opportunities to expand.

Improving trade facilitation environment and the connectivity would have a major impact on trade in the Caribbean. Caribbean

economies score poorly compared to other small island economies and many other developing countries on key indicators of trade facilitation, and trade logistics. Efforts across the region, with in some case the World Bank's support, to modernize customs administrations and border management (e.g. introduction of ASYCUDA, single window projects, trade information portal, implementation of Bali agenda, risk management based inspection at the custom with reliance on non-intrusive means) should be accelerated. In Dominica, Grenada, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and in Trinidad & Tobago, the World Bank, through the SEMCAR Program (Supporting Economic Management in the Caribbean), is providing analytical and technical assistance support in a wide range of areas related to customs efficiency, including among others, customs pre-clearance and risk management frameworks development and in-depth assessments of customs system (policies, processes and procedures). Recent initiatives to modernize ports infrastructures and regulation

in Jamaica, the DR, Bahamas, and Haiti, boosted by the race to host the Post Panama Logistics Hub are welcome, even though the expansion of port facilities carries some risk, given the existing excess capacity and the uncertainty concerning the amount of traffic that will use the Canal's expanded facilities.

Improving the business environment and investment climate would be essential to close the productivity and competitiveness gap with international competitors.

The Doing Business indicators show that other Small Island Economies are moving at higher pace than Caribbean on the reforms in this area. Business environment reforms, in the context of private sector-led growth, are front and center in the World Bank's country partnership strategies across the Caribbean. In Belize, the Dominican Republic, Grenada, Jamaica, and Trinidad and Tobago, for example, the World Bank provides lending and advisory support for the implementation of a wide range of reforms in areas covered by the Doing Business indicators and beyond, including among others, construction permitting, tax compliance and administration, investment policy and investor protection, secured lending and collateral registry, and insolvency reforms. In addition,

efforts need to be made to enhance the investment climate, including efforts to improve the skills base (including greater investments in science & technology), improving access to infrastructure and finance, and tackling crime.

Easing supply side constraints through innovation enhancement, and improvement of access to key services (electricity, transport and telecommunications) would have a major impact on the productivity of Caribbean firms.

The region needs to step up efforts to increase investments in research and development (R&D), strengthen scientific research institutions, encourage University-industry collaboration in R&D, enhance training of scientist and engineers, and promote Patent Cooperation Treaty (PCT).

Efforts to reduce poverty should focus on policies that improve the livelihoods of the poor, without necessarily discriminating between production for export or the domestic market.

There is an important role for promoting quality education to improve human capital, increase productivity and enhance the benefits of participation in export-oriented activities. At the same time, measures to promote links to value chains among small enterprises and micro entrepreneurs would raise the productivity of poor workers.

REFERENCES

- Baldwin, R. and D. Taglioni (2006). "Gravity for Dummies and Dummies for Gravity Equations." NBER Working Paper No. 12516, National Bureau of Economic Research, Cambridge, MA.
- Bernard, A., and B. Jensen. 1999. "Exporting and Productivity." *NBER Working Paper* No. 7135.
- Dollar, David and Kraay, Aart. 2002. "Growth is Good for the Poor," *Journal of Economic Growth* 7 (3): 195-225.
- ILO and ECLAC. 2012. "The Employment Situation in Latin America and the Caribbean" ILO *Labor Review: Latin America and the Caribbean*.
- Ravallion, Martin. 2001. "Growth, Inequality, and Poverty: Looking Beyond Averages." World Bank Policy Research Working Paper No. 2558. Washington, DC: World Bank.
- United Nation World Tourism Organization (UNWTO). (2012). Compendium of Tourism Statistics, available at <http://statistics.unwto.org/content/compendium-tourism-statistics>
- United Nations Conference on Trade And Development (UNCTAD) Statistics. (2013). Liner Shipping Connectivity Index, available at <http://unctadstat.unctad.org/TableViewer/tableView.aspx?ReportId=92>
- World Economic Forum (WEF). (2012). Global Competitiveness Index, available at <http://www.weforum.org/issues/competitiveness-0/gci2012-data-platform/>
- Winters, Alan. 2002. "Trade Liberalization and Poverty: What are the Links?" *The World Economy* 25 (9): 1339-67.
- Winters, Alan, Neil McCulloch, and Andrew McKay. 2004. "Trade Liberalization and Poverty: the Evidence So Far." *Journal of Economic Literature* 42 (1): 72-115.
- World Bank Group. (2012). World Bank Enterprise Surveys (WBES), available at <http://www.enterprisesurveys.org/>
- World Bank. 2013. *Gender at work*. Washington, DC: World Bank.
- World Bank Group (2014a), Doing Business Index, available at <http://www.doingbusiness.org/reports/global-reports/doing-business-2014>
- World Bank Group (2014b), Logistics Performance Index, available at <http://lpi.worldbank.org/21>
- World Bank. 2015. *The New Trade Environment and Opportunities for the Poor in the Caribbean*. Washington, DC: World Bank.



THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

www.worldbank.org/lac



The World Bank
1818 H Street, NW,
Washington, DC 20433, USA.

www.worldbank.org/lac