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Trade and Shared Prosperity in the Caribbean Region

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Trade and Shared Prosperity in the Caribbean region

Introduction

Despite fairly respectable economic growth over the decades and a degree of high trade openness, unemployment rates remain very high in the Caribbean, averaging 10% for the region between 2002 and 2009, and poverty reduction has been slow (World Bank, 2009).¹

Over the past five years, most countries in the region (The Bahamas, Barbados, Belize, Jamaica, and Suriname) have exhibited on average double-digit or nearly double-digit unemployment rates. 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 around 59% (Haiti).

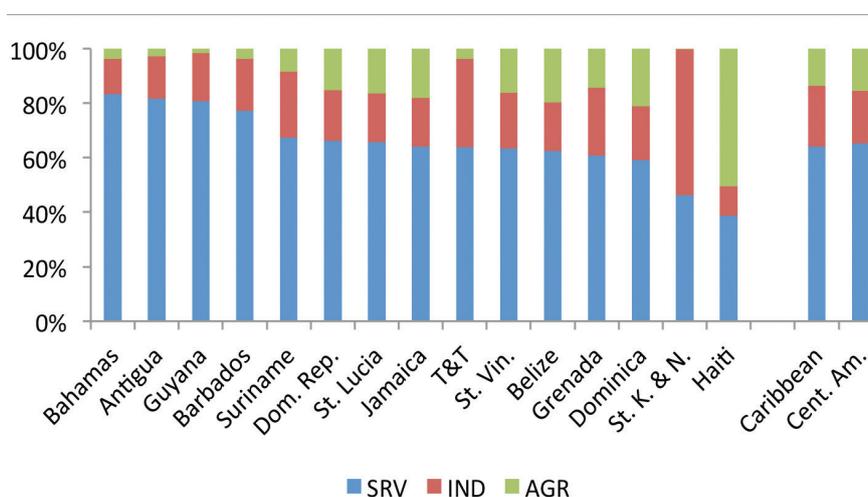
Profile of Employment in the Caribbean

The Caribbean economies are dominated by the services sectors, which account for more than 60 percent of employment in every country except Haiti and St. Kitts and Nevis (Figure 1). The development of a services sector in the Caribbean stems from the region's natural amenities that encourage the growth of tourism and further enhances the importance of services. Moreover, like other small developing economies, the small market

The purpose of this note is to provide background information on the role of trade in the unemployment and poverty reduction in the Caribbean and, based on recent World Bank analysis, to suggest areas where greater policy attention could promote trade and thus reduce poverty. We begin with a profile of employment in the Caribbean, and discuss the impact of trade on employment during the global financial crisis. We also review evidence on the role of trade in employment and development over the long term, and whether the poor in the Caribbean benefit from export activities. We then discuss how addressing constraints on exports and reducing tariff levels could enhance growth and reduce poverty. The conclusion summarizes the main issues.

sizes of the Caribbean countries make it difficult to support manufacturing plants that are large enough to achieve economies of scale level while serving only the domestic economy. In addition, the small market size coupled with their long distances to other markets imposes high trade costs on Caribbean firms and impedes their manufacturing and agricultural exports.

Figure 1: The Services Sector Dominates Employment in the Caribbean



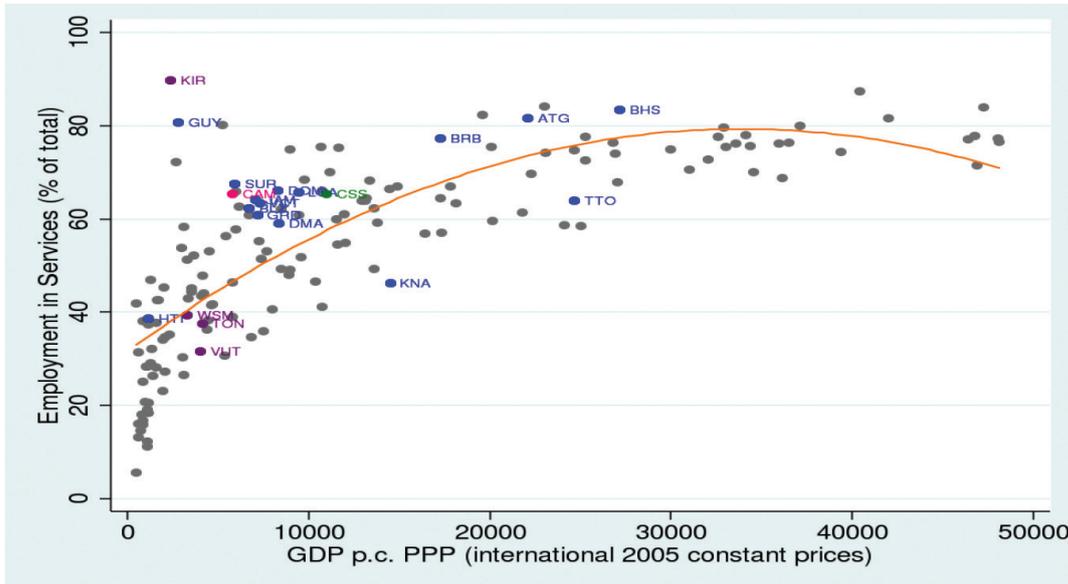
Source: World Bank, 2013b. Note: Average shares in 2000-2008.

¹ The study covered the following 15 Caribbean countries: Antigua and Barbuda, Barbados, Belize, Jamaica, St. Lucia, The Bahamas, Dominica, the Dominican republic, Grenada, Guyana, St. Kitts and Nevis, St. Vincent and the Grenadines, Suriname, Haiti and Trinidad and Tobago.

The importance of services to employment may be even greater than its impact on output, since the Caribbean service sectors (e.g. tourism) tend to be more labor intensive than industry or agriculture. Indeed, in most Caribbean countries, the share of services employment is greater than what would be expected given their level of income per

capita (Figure 2). On average, industrial employment in the Caribbean is in line with the region's level of income per capita, while agriculture accounts for the smallest share of employment of the three sectors. However, agriculture is particularly important for poor households, and remains a large employer in Haiti, Belize, and Dominica.

Figure 2: The Share of Employment in Services is Higher than Expected, Given Income per Capita

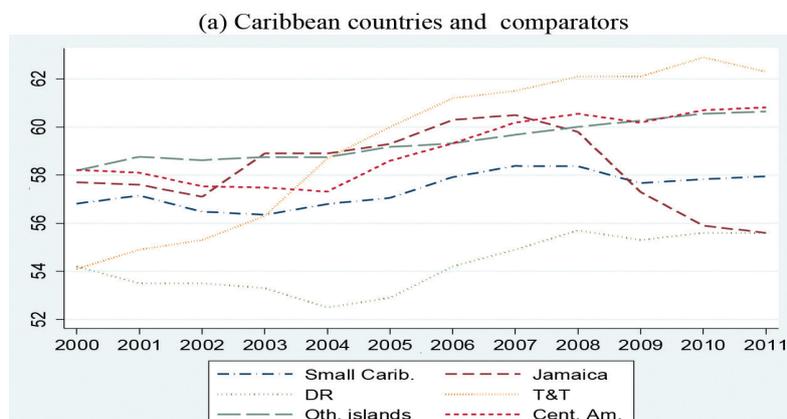


Source: Authors' calculations using World Bank (2013a) data.

Labor markets in most Caribbean countries have improved over the past decade, with steady increases in the ratio of those employed to the total population and in the labor participation rate among 15-64 year olds (Figure 3- panel a and b). However, progress has not been sufficient to significantly reduce the high unemployment and poverty rates of the low-income countries in

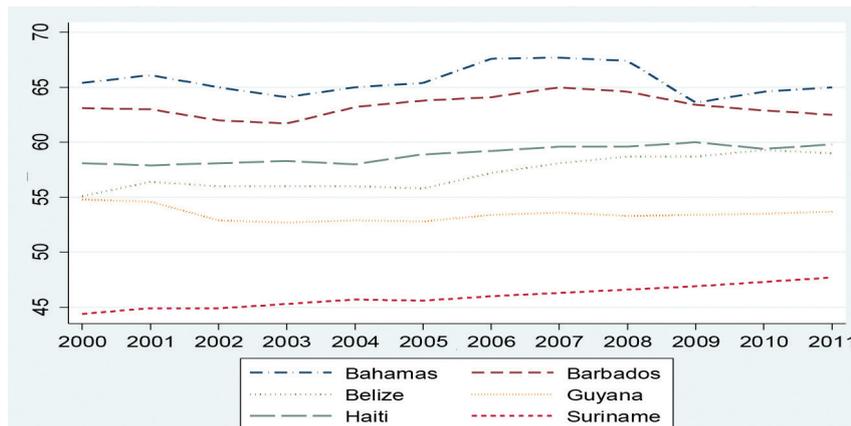
the region (Haiti and Guyana). The global financial crisis of 2007-09 did not greatly interrupt the steady improvement in labor markets, with the exceptions of Jamaica, where the employment ratio has declined sharply since 2008; the small, tourism-dependent economies of Barbados and The Bahamas; and to a lesser extent the Dominican Republic.

Figure 3: Employment to Population Ratio (%), 2000-2011
(a) Caribbean countries and comparators



Source: Authors' calculations using World Bank (2013a) data.

(b) Small Caribbean countries and Haiti (individual series)



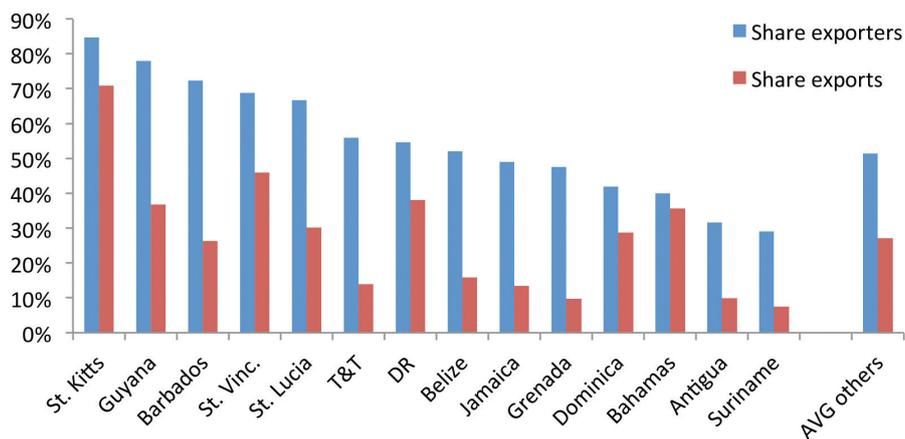
Source: World Bank (2013a).

The Role of Trade in Employment and Development

Trade plays an important role in employment 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 Survey (World Bank, 2013c) (Figure 4). The share of employment that is directly or indirectly generated by exports, which excludes the workers of exporting firms 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.² 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

Figure 4: Share of Exporters and Share of Exports (Direct or Indirect) in Total Employment



Source: Authors' calculation using WBES data.

The contribution of trade with new growth poles to employment in the Caribbean countries is still very modest. The data reported in the WBES (World Bank, 2013c) suggest that exporters and exports of metals and mineral fuels, that largely dominate Caribbean trade to new growth poles, account for

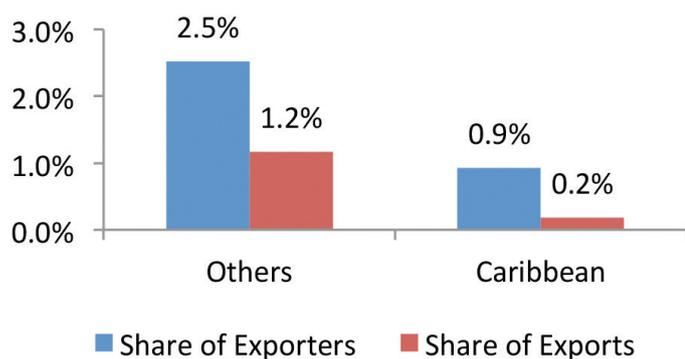
a tiny share of total employment (Figure 5, panel a) and even of manufacturing employment (Figure 5, panel b). That is in part due to the small size of these sectors in the economies but also to the particularly small contribution of their exports to employment in the Caribbean relative to other developing countries.⁴

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.

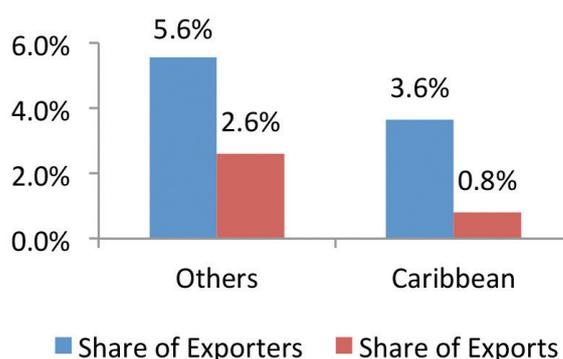
⁴ The share of employment linked to exports in overall employment in these sectors is 9.3% in the Caribbean countries and 14.3% in the other developing countries.

Figure 5: Importance of Exports to the New Growth Poles: Metals and Mineral Fuels

(a) Shares in total employment



(b) Shares in manufacturing employment



Source: Authors' calculation using World Bank (2013c) data.

Contrary to other developing countries, the quality of employment in the Caribbean exporting firms, in terms of wage levels, gender participation, and skill of workers, does not seem to be different to that of non-exporting firms.⁵ Econometric analysis shows that, after controlling for industry, foreign ownership, firm size, and age, as well as sector and country effects, the difference between wages paid by exporters and non-exporters is not statistically significant. By contrast, the same estimation procedure finds that exporting firms in other developing countries pay, on average, 17 percent more than do non-exporters. This difference between Caribbean and other developing countries holds for the manufacturing sector as well. This difference seems to be driven at least in part by quality certifications and investment in training. The results suggest that these investments yield a considerably higher effect on wages in the rest of the world than in the Caribbean. As exporters tend to be more highly represented than non-exporters in areas like industry, foreign ownership, and firm sizes, wage premiums drop significantly once these investments are controlled for.

Similarly, it does not appear that the share of skilled workers (those with secondary school education) is significantly larger in Caribbean exporting than non-exporting firms, while exporting firms in other developing countries employ 2.8 percent more secondary-educated workers than non-exporters. One reason why Caribbean exporters do not tend to employ more educated workers than non-exporters, while

exporters in other developing countries do, is that the well-educated workers are relatively more abundant in the Caribbean. In Caribbean firms for which data is available (only one-third of the entire sample), 71 percent of workers have secondary school education, compared to 66 percent in other developing countries⁶.

The differences between the share of women employees in the exporting and non-exporting firms in the Caribbean is not statistically significant.⁷ However, the share of women in the workforce is 4.5 percentage points higher in exporters of manufactures than in other manufacturing firms. This is a large difference, considering that the average female share of employment in the sample of Caribbean manufacturing firms in the WBES is 35 percent.

Exporters to the new growth poles also do not appear to provide a higher quality of employment than other firms. That is, econometric analysis suggests that their wage levels, the share of employees with a secondary school education, and the share of female employees, are not significantly different from other firms.

In short, the contribution of trade to Caribbean development is through increasing employment, improving efficiency, and providing opportunities for greater economic activity. In contrast to many other developing economies, export activity does not make a significantly greater contribution to development than production for the domestic market in the Caribbean.

5 See, for example, Isgut (2001) and Kaplan (2006) for wage premium in exporting sectors. See Schank, Shnebel and Wagner (2004) for a contrary view based on data for Germany. On exporting and the share of skilled workers, see Iacovone and Javorcick (2013) and Verhoogen (2008). On exporting and gender employment, see Korinek (2005).

6 It is worth noting however that the availability of skilled labor varies significantly within the Caribbean.

7 Boosting the employment of women is important because women are more economically excluded than men on virtually every global measure (World Bank, 2013a), and there is a strong, positive correlation across countries and time between the relative position of women in society and the level of economic development (Duflo, 2012).

The Impact of Trade on Employment during the Global Financial Crisis

Exporting firms generally had lower rates of employment growth during the financial crisis than non-exporters. The difference in some cases was substantial. In Trinidad and Tobago, employment growth among exporters was 4.7 percentage points lower than among non-exporters (Table 1). Moreover, these calculations are only based on reports from those firms that existed in 2007 and survived until at least 2009, and thus do not include firms that folded

before the 2009 survey. Measuring employment only in firms that survived the crisis may overstate the overall growth rate in employment. In addition, it is likely that firms' exit during the global crisis was more common among exporters than among firms producing for the domestic market. Thus the results may understate the difference between the growth rates of employment in firms serving the domestic market versus in exporters.⁸

Table 1: Employment Growth in Caribbean Countries, 2007-09

(Annual geometric growth rate)

Employment (Geometric) Growth Rate 2007-2009 [SD Outliers Dropped]

	(1)		(2)		(3)		3 - 2
	All Firms		Non-Exporters		Direct and Indirect		
	Obs	%	Obs	%	Obs	%	
Antigua and Barbuda	142	3.9	100	4.1	42	3.1	-1.0
Bahamas, The	138	5.8	112	6.0	26	4.9	-1.1
Barbados	141	5.1	84	5.3	57	4.3	-1.0
Belize	146	3.5	109	3.6	37	3.0	-0.5
Dominica	140	2.3	96	3.6	44	-0.1	-3.7
Dominican Republic	323	9.1	257	9.4	66	6.2	-3.2
Grenada	142	6.6	119	6.0	23	10.0	4.0
Guyana	150	6.2	95	6.9	55	4.8	-2.1
Jamaica	329	2.9	268	2.9	61	3.1	0.2
St. Kitts and Nevis	133	7.8	91	8.9	42	4.6	-4.3
St. Lucia	147	2.9	88	2.1	59	5.1	3.0
St. Vincent and the Grenadines	132	3.0	93	3.5	39	1.5	-2.0
Suriname	147	4.8	123	4.8	24	4.5	-0.3
Trinidad and Tobago	351	7.7	264	8.7	87	3.9	-4.7
Caribbean Average	2,561	5.1	1,899	5.4	662	4.2	-1.2

Source: Authors' calculation using World Bank (2013c) data. Observations with values greater (less) than three times the standard deviation plus (minus) the mean of their respective group defined by country, sector, and size are dropped.

The impact of the crisis on employment was diverse across sectors, with the manufacturing sector showing stronger resilience than tourism sector (hotel and restaurant). During the crisis, the difference between employment growth among Caribbean direct exporters of manufactures and that of non-exporting manufacturing firms was not significantly different from zero. By contrast, the growth rate of employment among exporters in the hotel and restaurant businesses was significantly worse during the crisis than among non-exporters. This was particularly true for direct exporters, where

the growth rate of employment was 13 percentage points lower than for non-exporters. The growth rate of employment in the hotel and restaurant sector was also negatively, and significantly, related to the share of exports in total sales. The impact of the crisis also differed significantly among countries. For example, in Jamaica the tourism sector demonstrated considerable resilience, while tourism revenues were hard hit in most other Caribbean economies.

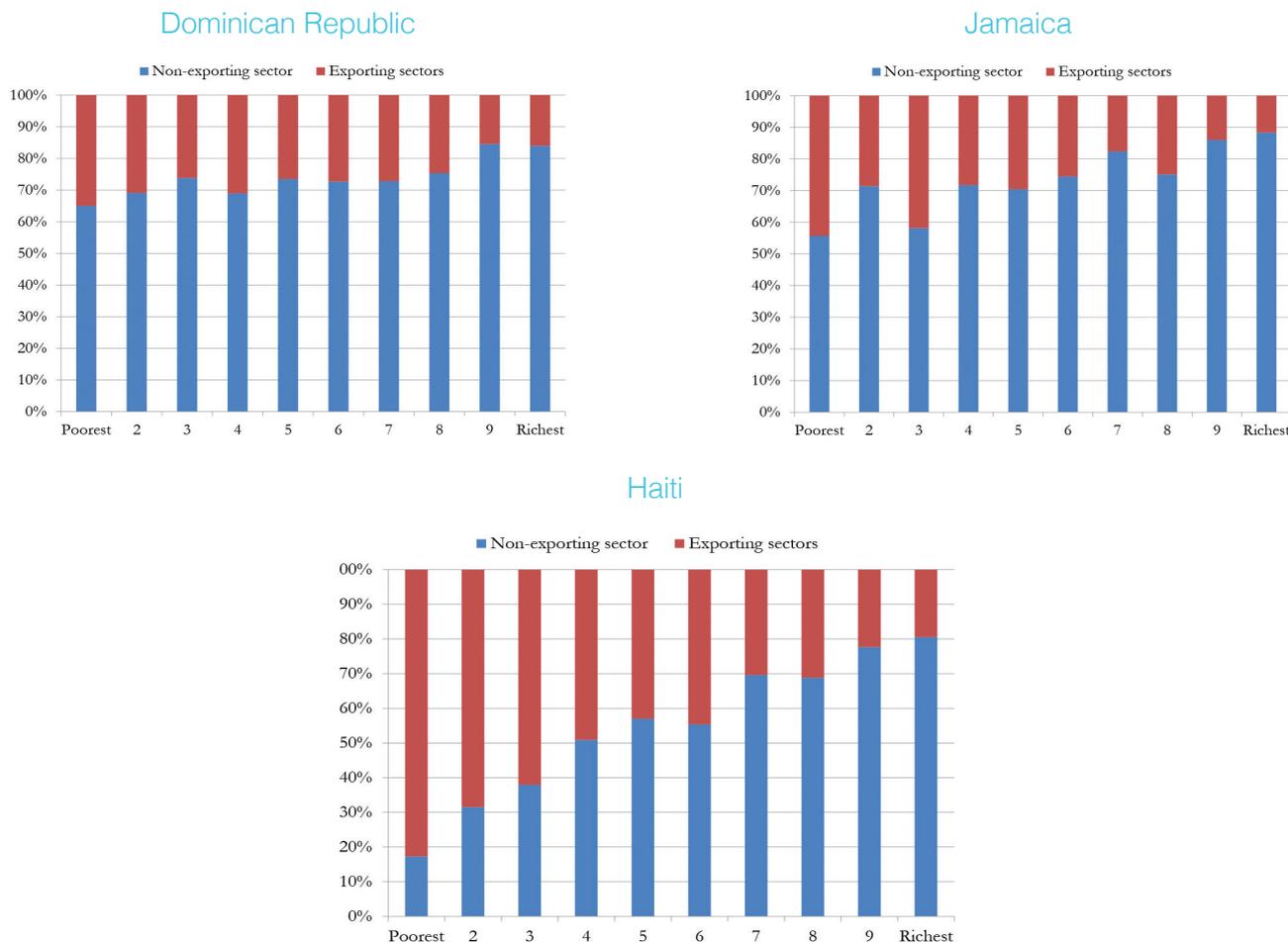
⁸ There also may be spillover effects from exporters to non-exporters (and vice-versa), as exporters may generate demand for goods and services produced by non-exporters. So if exporting firms failed more frequently than non-exporters, these comparisons would fail to capture the full extent to which the export channel reduced Caribbean employment during the crisis.

Do the Poor Benefit from Exporting?

On the face of it, poor Caribbean economies benefit significantly from employment in exporting firms. In all countries with adequate data, the poorest 40 percent of households have a higher share of their workers employed in exporting sectors (Figure 6). 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. The fact that the share of educated workers does not differ greatly between exporting and non-exporting sectors (see above) is a further indication of the participation in exporting sectors by the poor.

Figure 6: The distribution of Employment by Exporting and Non-Exporting Sectors

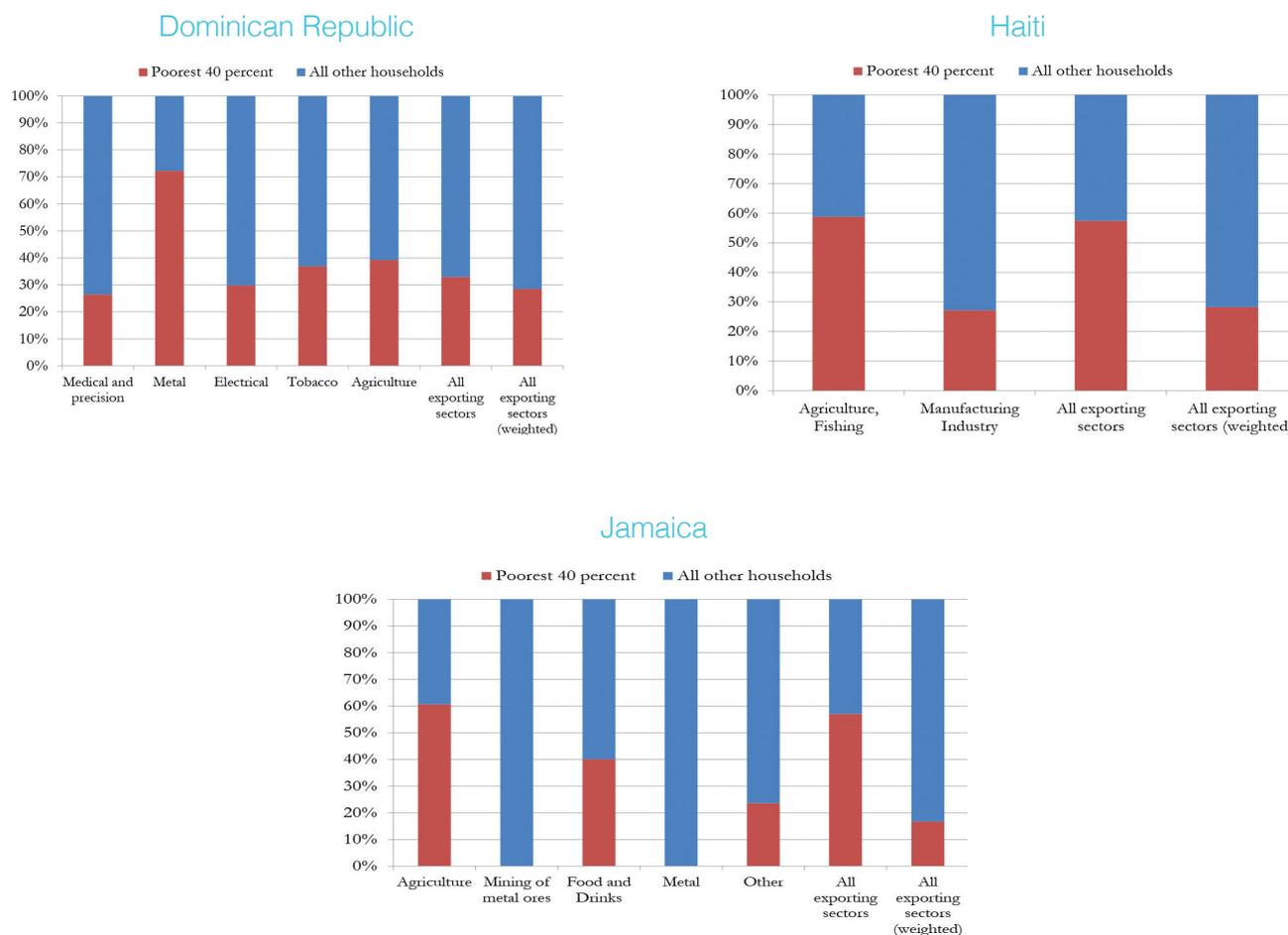


Source: Household surveys and World Bank staff calculations.

However, in some cases the job opportunities created by trade may be less important than suggested by these numbers (Figure 7). That is because many of the poor are employed in exporting sectors (e.g., agriculture) that account for a much smaller share of exports than other exporting sectors (e.g., manufacturing). The weighted average of employment opportunities created by trade—that is, the poorest 40 percent’s average share of employment, weighted by a sector’s share of total trade—may differ substantially from the non-weighted

average. In the case of Jamaica, for example, the exporting sector employs two-thirds of its workers from the poorest 40 percent of households, but the metal sector, representing a significant share of all trade (35 percent or 46 percent, if the mining of metal ores is included) does not employ workers from poor households at all. As a consequence, weighted by each industry’s share of all merchandise exports, poor workers account for only a fifth of export employment.

Figure 7: The Distribution of Employment by Income Group: Main Exporting Industries
(In percent of total employment by industry)



Source: Household surveys and World Bank staff calculations.

Meanwhile, employment opportunities provided by trade with the new growth poles have been limited, reflecting the concentration of trade in a few industries that employ few poor workers.

Many of the industries that trade with the new growth poles employ mostly skilled workers from richer households. In part, this has been due to the capital-intensive production methods in the sectors, such as mining, that account for a large share of exports to the new growth poles, while more labor-intensive sectors that employ more poor workers account for a small share of this trade. However, the Dominican Republic has been an important exception due to the large share of poor workers in mining, which dominates exports to the new growth poles.

In addition, the income gains from employment in the exporting sectors appear limited. On

average, the earnings of the poorest 40 percent are not significantly different between exporting and non-exporting sectors, though there are some exceptions. The resulting disparities in income or consumption between poorer households and richer households are also similar across sectors. In the Dominican Republic where relevant data exist, the average earnings of workers from among the poorest 40 percent of households are about the same in exporting and non-exporting sectors alike.⁹

According to the broad literature on the impact of changes in earnings on poverty, there are several reasons why the income gains from employment in the exporting sector may be insufficient to significantly raise the incomes of the poor in the Caribbean. First, poor workers may earn low wages, reflecting low levels of human

⁹ By construction, of course, workers from the bottom 40 percent of the distribution have much lower per capita consumption than workers from all other households. Consumption levels, however, reflect all income sources available to a household, including both private and public transfers. Thus, it may still be useful to investigate the relative income gains from employment in exporting sectors.

capital. Second, poor workers may be paid adequate unit wages but are not able to work enough hours. They may work only part-time during the week or hold temporary contracts during the year, leading to seasonal unemployment. Third, a large number of dependents (e.g. household members in school or retired, or working-age household members that are unemployed or out of the labor force) may drive down the income of poor households.

Indeed, the data generally suggest low levels of human capital among the poor in Caribbean countries, constraining their ability to be more productive. The disparities are very large in some countries. In Haiti, for example, the principal earner among the poorest households has only 1 year of schooling, on average, compared to 9 years of schooling in the richest households. In the case of the Dominican Republic, the principal earners in the poorest households average about 5 years

of schooling, compared to 12 years in the richest households.

In addition, in sectors where average years of education are more or less the same among workers, workers from the poorest households are employed in informal jobs or working on their own account, and thus unable to benefit from economies of scale and unable to participate in value chains. These workers are therefore likely to be less productive, on average, than richer workers, despite possessing the same level of human capital. The evidence in Jamaica suggests that indeed, the majority of principal earners among the poorest 40 percent of households are working as self-employed workers.

Trade reforms and shared prosperity: CGE-micro simulation

To assess the effect of alleviating trade constraints on poverty, we relied on a sequential CGE micro-simulation approach that allowed us to capture not only the macroeconomic effects of the reforms but also the corresponding poverty and inequality implications. The model used is a multi-country static model relying on the Global Trade Analysis project (GTAP) framework (Hertel, 1997), using Social Accounting Matrices of 2007, and including all fifteen Caribbean countries of interest for this report (the focus countries): Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Saint Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago and the Dominican Republic. The micro-simulation module, which uses household income and expenditures surveys to evaluate the implications of CGE results for households, focuses on Haiti, the Dominican Republic, and Jamaica.

Three sets of scenarios are considered that correspond to three areas of policy interventions: trade policy measures, consisting of deeper regional integration among Caribbean countries, and better market access to new growth pole countries; trade facilitation measures consisting of reductions in trade costs; and measures to eliminate supply-side constraints, such as enhancing productivity through improvements in innovation, and reduction in the infrastructures gap. As a benchmark, a fourth

category of scenario is considered where the Caribbean countries reinforce their specialization on tourism as their traditional domestic market.

Results for the Dominican Republic show that changes in tourism and improvements in innovation would bring proportionally more benefits for urban households, while alleviating constraints on access to key services would bring a faster decrease in extreme poverty (table 2). Even though reforms to reduce trade costs and improve access to emerging markets have a much lower impact, they are still poverty reducing. Extreme poverty changes little when expanding access to emerging markets. As underlined previously, trade to new growth pole relies on metals and minerals fuels that are very capital-intensive and use little labor. A reduction in trade costs would have a larger impact on extreme rural poverty compared to urban. Tariff reforms (adoption of the CAROCIM CET) are associated with a slight rise in poverty, as tariff levels are already relatively low in the DR compared to the CET.

Table 2: Dominican Republic. Percentage change in poverty by urban rural divide

	Trade costs	Tariff reform	Innovation	Services	Tourism	Emerging Markets
Moderate	-1.6	0.7	-5.6	-8.5	-8.8	-1.0
Urban	-1.7	0.8	-6.5	-9.4	-10.7	-1.1
Rural	-1.6	0.4	-4.1	-7.0	-5.7	-0.9
Extreme	-0.9	0.6	-6.7	-11.6	-5.0	-0.2
Urban	-0.8	0.4	-7.7	-11.5	-6.1	-0.1
Rural	-1.0	0.8	-5.3	-11.7	-3.5	-0.2

Source: Authors' construction.

In the case of Haiti, our model shows that easing access to innovation would reduce poverty reduction by the greatest amount, followed by reforms to reduce trade costs (see table 3), reflecting the gap between Haiti and the best Caribbean performers in these areas (see Policy Note 1). The poorest households living in urban areas would gain the most if these reforms are undertaken. Extreme urban poverty falls almost 34 per cent in the innovation scenario and 21 per cent in the trade cost scenario. Tourism has the third largest impact on extreme urban poverty reduction. Rural poverty also falls in all scenarios except the scenario where access to emerging markets is improved, with extreme poverty declining faster than overall poverty. An increase in tourism would be poverty reducing, even though most of the gains accrue to urban areas. Tariff reduction will also benefit the urban poor most, reflecting their higher dependence on imported food products. In the case of Haiti, our model shows that easing access

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Table 3: Haiti. Changes in poverty by urban rural divide

	Trade costs	Tariff reform	Innovation	Services	Tourism
Moderate	-9.1	-4.0	-13.9	-5.9	-8.0
Urban	-18.2	-7.9	-25.6	-11.8	-17.0
Rural	-4.5	-2.1	-8.1	-3.0	-3.5
Extreme	-11.1	-4.8	-19.6	-6.9	-6.8
Urban	-21.3	-9.4	-33.8	-12.5	-17.8
Rural	-8.9	-3.8	-16.5	-5.7	-4.5

Source: Authors' construction.

Conclusion:

Conclusion: Addressing Constraints on Exports and Promoting Broad-based Benefits of Trade

Our analysis shows that international trade plays a major role in terms of job creation and poverty reduction in the Caribbean, more so, on average, than in the other developing countries. That is particularly true for manufacturing, where over one in four jobs is related to exports and where exporters account for more than half of formal employment.

However, in general, poor Caribbean households 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 quality and quantity of education received by households are comparable, poorer households seem unable to participate fully in productive activities boosted by scale and network effects. Instead many of them are self-employed, possibly in informal enterprises.

There is a role for policy in alleviating poverty by helping promote the shared benefits of trade. Considering the variety of issues involved in this area, it will likely require a multi-pronged approach involving the following measures:

1. Promoting quality education for all: Where human capital is an important constraint, the requirements are consistent with an overall development strategy that promotes quality education for all. In the case of the Dominican Republic, for example, this requires promoting access to education, particularly among the poorest

40 percent of households. In the case of Jamaica, this requires strengthening the quality of education.

2. Strengthening links to the value chain among small enterprises: Where workers from poorer households are unable to take advantage of scale and network effects, addressing the constraints may require a deeper understanding of the complex dimensions of the business environment. Part of the problem could be a burdensome regulatory environment that encourages informality or that limits scale. Another part of the problem could be the existence of a large number of relatively unproductive micro firms that are unable to participate fully in the value chain. In some economies, there are emerging models for aggregating micro firms or for creating networks of micro firms to enable smaller firms to take advantage of scale.

3. Addressing key impediments to trade performances: our analysis shows that acting to remove some key trade impediments may also directly help the poor: i) Lowering the cost of transport and strengthening trade services could reduce food costs and thus benefit the poorest consumers, particularly in Haiti, the poorest country of the sub-region which depends heavily on food imports; ii) Improving access to transport and infrastructure services, as well as devoting more resources to innovation (e.g. investment in research and development) would boost productivity and thus reduce prices on both domestic production and imports, which also would reduce poverty; iii) Strengthening regional integration through the implementation of the CARICOM common external tariff (CET) would reduce poverty and inequality in most countries in the region, by lowering the cost of imported inputs, increasing economies of scale. However, the CET would not significantly reduce poverty in countries such as the Dominican Republic, where tariff schedules are already lower than the CET for key items.

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