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The Practicality of Regional Import Substitution as a Strategy for Sustainable Development in the Caribbean

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Provide short biographical notes on all contributors here if the journal requires them.

The Practicality of Regional Import Substitution as a Strategy for Sustainable Development in the Caribbean

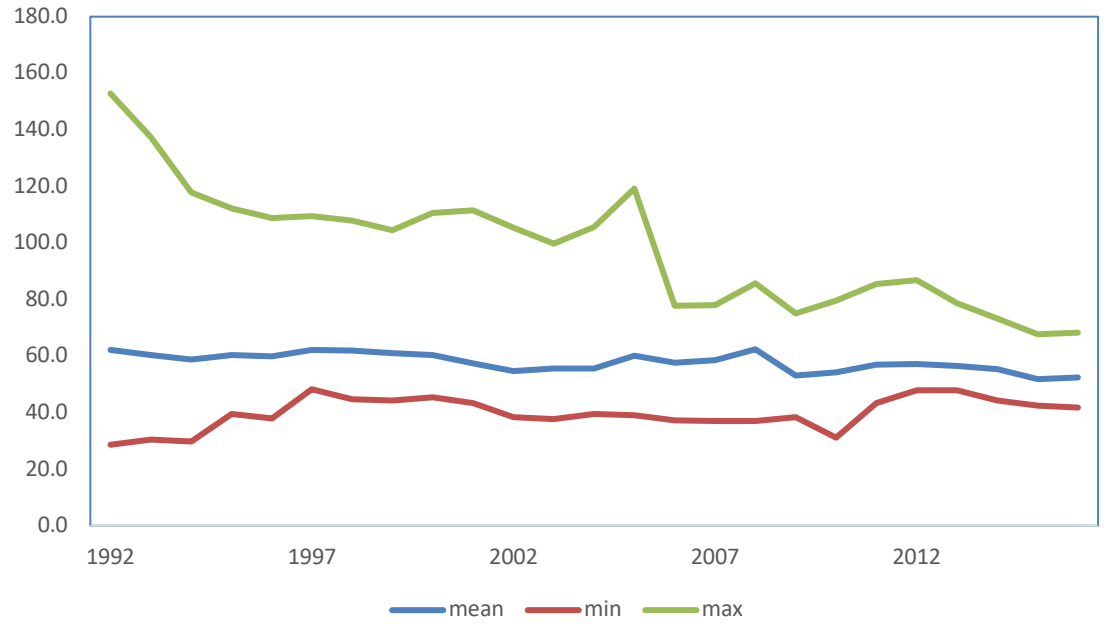
It has long been apparent that economic development in the Caribbean could not be sustained on the basis of traditional agricultural exports. Since the 1960s the debate has centered on what should take their place, and what mechanism should be used to achieve, at least in part, sustainable development. One reoccurring topic is the notion of import substitution. Contrary to previous literature, this study evaluates the feasibility of import substitution at the regional rather than at the country level on the basis that it is not economically feasible to supply all the goods that a country may consume on its own. To evaluate the feasibility of this approach, we use a trade database that matches imports (consumption) and exports (production capabilities) of various Caribbean countries. We then conduct counterfactual simulations of the feasibility of import substitution if all of the trade overlaps within the region are exploited. We discuss the implications that this might have for intra-regional trade, economic activity and employment. The overall feasibility of such an approach is also assessed.

Keywords: imports; import substitution; integration

1 Introduction

Caribbean economies are very dependent on the import of goods and services in their economies. Imports are used in the production of goods and services as well as for consumption purposes. **Figure *1*** plots the average ratio of imports of goods and services to various Caribbean countries (Antigua and Barbuda, Barbados, Belize, the Bahamas, Dominica, Grenada, Guyana, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, as well as Trinidad and Tobago) along with the minimum and maximum ratios for each year. For the period 1992-2016, imports as a percentage of GDP was 58 percent. While the average imports to GDP ratio has been falling, as illustrated by the significant decline in the maximum ratio over the period, the ratio still remains high.

Figure 1: Caribbean Imports (% of GDP)



Source: World Bank World Development Indicators

The dependence on imports not only puts a foreign exchange burden on Caribbean small states but also reduces the potential rate of growth in GDP. In tourism economies, the high import content of the industry reduces the overall value-added of the industry, potential foreign exchange earnings as well as employment. One area that Beckford and Campbell (2013) highlights is the link between small-scale food-producing sector and tourism. Supporting this link has the potential to enhance food security in the region while also enhancing the value added of tourism and other industries. However, for much of the region's history, this link has never been developed.

The dependence on imports has also been a key source of growth and price volatility in the Caribbean. Shocks to oil prices increase the demand for foreign exchange and suggest that these small states have to find ways of financing or offsetting these shocks. Moore and Glean (2016) propose that this could be done by holding a larger amount of foreign exchange reserves. However, holding large stores of foreign reserves implies that this money is not available to finance other development projects in the country.

This paper proposes the alternative of diversifying away these shocks through the concept of regional import substitution. Unlike previous attempts at import substitution in the Caribbean, this present study does not envision a single Caribbean country producing all of the resources it may need to support its consumption or production. In addition, the authors are also cognisant of the fact that previous attempts at enhancing trade by trading in a common currency have also been difficult (Anthony & Hallet, 2002; Girvan, 2012), particularly given that the conditions for a monetary union are not present in the region. The goal of the paper is therefore quite modest; that is, to encourage greater trade in the region by identifying areas for import substitution. It is acknowledged that such a system

implies that there would be winners and losers in this approach. However, institutional mechanisms already exist within CARICOM to compensate countries that "lose" from the trading mechanism proposed in this study. Indeed, the Revised Threaty of Chaguaramas Establishing the Caribbean Community makes many special exemptions for Less Developed Countries. The CARICOM Development Fund also seeks to reduce the disparities arising from the participation of Member States in the CARICOM Single Market and Economy (CSME) through financial and technical assistance to disadvantaged countries, regions and sectors.

The remainder of the paper is structured as follows. The next section, Section 2, provides a summary of previous literature on import substitution. Section 3 outlines the empirical approach employed in the study and Section 4 provides a summary of the key findings. Section 5, outlines the key findings of the paper as well as discusses some options for implementation and the way forward.

2 Brief Review of Previous Literature

2.1 Import Substitution in Developing Countries

There are many different ways in which import substitution can support development in low-income countries. Bruton (1998) summarises the notion of import substitution as one that proposes lower income countries should profit from international trade through industrialisation. Since countries in their north are already industrialised and are characterised by highly productive firms, however, developing countries must protect

their nascent economies and encourage the growth of manufacturing in their own economies. In this way, their economies, at some point in the future, can then enter export markets and further propel growth. Amsden (2004), for example, notes that leading Asian governments actively promote import substitution in relation to high-tech parts and components.

The returns from this import substitution strategy, however, have not as been expected in some countries. Bruton (1998) notes that by the 1970s little evidence could be found of the purported benefits of import substitution. As a result, many developing countries still suffered from under and unemployment, poverty, inequality, low productivity and low export ratios. In addition to this, countries such as Taiwan and South Korea who had eschewed import substitution as a development strategy and instead had more liberal trade policies experienced remarkable rates of growth as a result booming export industries. In support of this finding, Irwin (2002) reports that high tariffs used as part of import substitution policies may have shifted resources out of slow growing sectors to fast growing sectors.

Given this apparent real-world incongruity, many articles have been written trying to explain this apparent difference in results of import substitution versus export promotion as economic strategies. Bruton (1989) identify five key reasons for the failure of import substitution as a development strategy: (1) import substitution penalises exports; (2) the unequal costs of protection on the population; (3) investment in cheap capital vs human capital; (4) unfavourable terms of trade; and, (5) high costs of capital goods due to import protection. Similarly, Puga and Venables (1999) note that import substitution and unilateral trade liberalisation are successful at attracting industry, they tend to attract

different sectors. Overall, however, the levels of welfare are higher under trade liberalisation.

India provides a relatively good example of the fortunes of countries that pursued import development strategies. Bruton (1989) notes that by the latter half of the 1950s the country had fully committed to an import substitution strategy: it had direct controls on investment and high tariff walls to protect local manufacturers. Rather than supporting the growth of competitive manufacturing firms, it instead resulted in uncompetitive firms and activities, which also squeezed out the relatively competitive agricultural industries.

Using the evidence from Latin America to assess the success or failure of import substitution policies, the evidence appears to be mixed (Baer, 1972). Given the relatively small markets, human capital shortages and relatively immature industries before import substitution policies were implemented, many Latin American countries also experienced a significant growth in inefficient uncompetitive industries. In small countries, firms in industries which required scale economies to be competitive popped-up (e.g. car manufacturing). Additionally, governments' anxiousness to promote competition encouraged other firms to enter the market making the situation even worse.

While the historical returns from import substitution seems to have been poor, the idea has been revived in recent years with some positive results. Amsden (2004) discusses the case of Taiwan who would have used government policy to support firms in high tech industries. These support mechanisms included fiscal policy, science parks, Research and Development Institutes and other similar supportive mechanisms. In addition to this supportive environment, firms also had to meet performance standards to be eligible for

ongoing government support. As a result of this supportive environment as well as strict performance standards, these high-tech industries experience phenomenal growth. Between 1998 capacity of Taiwanese firms to produce Liquide crystal displays jumped from 0 percent to almost 26 percent by 2001. Its integrated circuit design industry expanded from eight firms in 1985 to fifty in 1988.

2.2 Infant Industry Argument

The infant industry argument is the notion that productive industries in developing countries like the Caribbean need time to develop without the pressure of competition from larger counterparts that have been in business for a long-time. Shelter for domestic infant industries is provided through trade policies that either restrict the availability of competing imports, fiscal incentives, subsidies, among other things. By providing such support, local domestic industries are able to grow without the pressure of competition from existing counterparts outside of the country or region. Through their dominant position in the domestic market, they can finance investments in technology and equipment that would then allow them enter export markets.

The industrial policies supporting the infant industry argument tended to have a different effect than what was originally intended. Henry (1981) notes that industrial policies in Jamaica in the 1970s was largely aimed at providing protection as well as import duty concessions on raw materials and machinery as a means of promoting consumer goods industries that would reduce the demand for imports and stimulate the economy at the same time. Quite early on in this programme it was clear that these policies were supporting unproductive firms and resulting in higher prices.

In recent decades, however, the notion of import substitution has re-emerged under the banner of productive development policies. In contrast to the import substitution argument of the previous decades, productive development policies were aimed at enhancing the competitiveness of domestic industries by, for example, helping with technological innovation, reducing government bureaucracy and broadly creating a supportive business institutional framework (Melo & Rodriguez-Clare, 2006). In contrast to import substitution policies, productive development policies tend to draw less on government institutional structures that expand the role and size of the state in the economy. Melo and Rodriguez-Clare note that while it might be too early to assess the effectiveness of these policies it is clear they have enhanced the degree or innovation as well as consolidation activities in Latin America and the Caribbean, as these companies attempt to export and meet foreign competition on the local market.

Once used effectively, supporting infant industries can be part of a successful internationalisation strategy. Silva, Silva, Rocha and Dib (2015) argued that since the 1960s the software sector in Brazil has been protected using the infant industry argument as the basis of protection. This protection has provided a agreeable business climate for software providers in the country. The firms that benefitted from this protection have since gone on to internationalise their businesses.

3 Empirical Methodology

To determine the scope for import substitution and the possible macroeconomic impacts, a two-step approach is employed. The first step examines the degree of similarity

between CARICOM imports from outside the region (extra-regional imports) with exports by CARICOM within the region (intra-regional exports), within the same goods categories. This permits quantification of the proportion of extra-regional imports that could be substituted by exports from countries within CARICOM.

Coefficients of Export-Import Similarity (XMS) are calculated by modifying the export similarity method developed by Finger and Kreinin (1979). This modification measures the proportion of a country's imports matched by CARICOM exports in the same goods category. This index may be expressed as:

$$XMS(i,k,w) = \sum_j Min[M_j(i,w), X_j(k,i)] \quad (1)$$

where $M_j(i,w)$is the share of good j in i's imports from source w, and $X_j(k,i)$ is the share of good j in k's exports to country i. *XMS* varies between 0 and 1. Values close to 1 imply a greater degree of overlap in the extra-regional imports of a country with intra-regional exports by CARICOM, that is, a high similarity, while values close to 0 indicate little similarity. The export-import similarity index value for a country, an estimate of its potential import substitution from CARICOM sources, is then used as an input into the second step of the modelling approach. Observations on commodity exports and imports in 2005 at the SITC 3-digit level used to calculate Equation (1) were obtained from UN COMTRADE.

The modelling framework employed is analogous to the Global Policy Model (GPM) outlined by Alphametrics Co. Ltd. (2009). Similar to GPM, it uses behavioural relationships, identities and ratios to trace historical developments as well as simulate the potential future impacts of trends, shocks, and various policy initiatives over the medium-term (35 years, 2050). The modelling framework is not aimed at providing short-term

forecasts but provides a consistent, rigorously structured framework for thinking about the social, economic and environmental problems facing the Caribbean.

The model attempts to provide forecasts for seven Caribbean countries: the Bahamas, Barbados, Grenada, Guyana, Jamaica, St. Lucia, and Trinidad and Tobago. Within individual country models, there are interactions between the various social, economic and environmental variables. Each macro-model is also comprised of a historical time series databank taken from international sources (World Bank and the United Nations). To ensure comparability, the data is largely sourced from international databases.

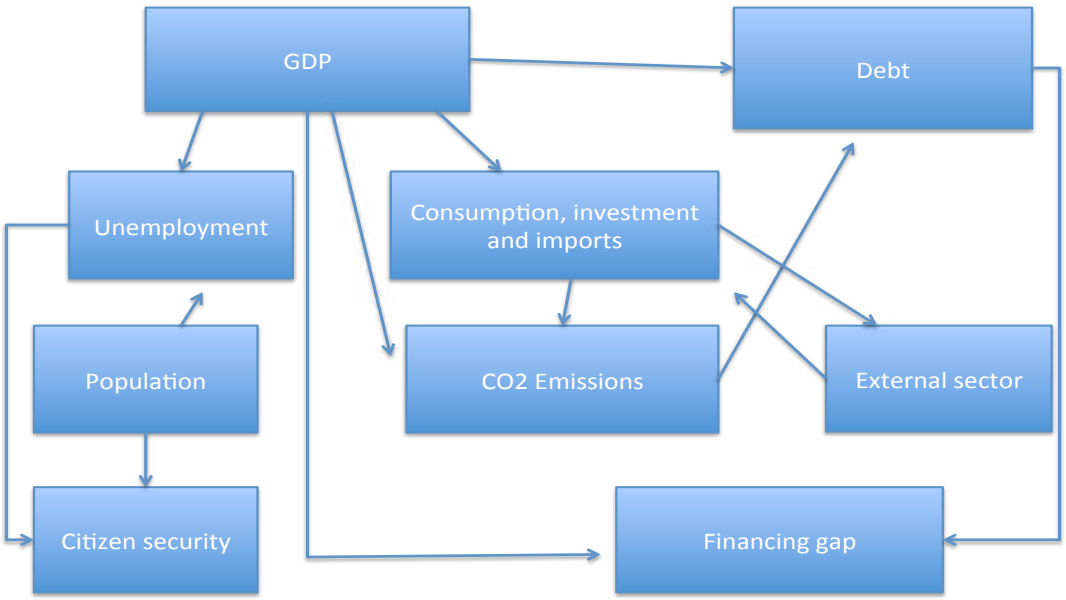
The behavioural specification is homogeneous across the countries. Any structural differences between the countries, is therefore captured within the model and is not imposed by the model specification or approach employed. The relationships specified in the model are based either on econometric relationships or accounting identities. The model is closed through the financial sector, which also provides an estimate of the financing gap for the country and is of particular policy relevance for small developing states.

The forecasts provided in the study are 'plain' projections, as future residuals are assumed to be zero. Medium-term forecasts, such as those provided in this study, are subject to unexpected shocks, policy changes and other events that may push an economy away from its long run growth path. The forecasts provided in this study therefore assume that

the economy (-ies) are not subject to major economic shocks[1] over the forecast horizon. While this assumption might appear to be a bit strong, the scenarios are designed to assess various policy scenarios rather than accurately predict future economic trends in the short term.

Given that the policy variables considered in the model enter exogenously, it is possible to consider what is needed to achieve a particular policy target (e.g., GDP per capita, unemployment, or public-sector debt). These targets can be achieved either via structural changes to the economy or policy innovations that are linked to the target variable. In addition, given that the model accounts for the structural differences and starting points for the various countries, one can assess the relative efficiency of a policy in various countries.

Figure 2:Policy Model Modules and Interactions



[1] This assumption that the economies are not subject to major shocks in the forecast period is necessary to show the implications of the import substitution, without being clouded by the effects of exogenous shocks.

The Policy Modules shown in Figure 2 represent the domestic interactions of Caribbean small island states. Given the peculiarities of these economies, select indicators have been identified and their structural relationships are discussed below. For small economies, the amount of goods and services it produces, Gross Domestic Product (GDP) is vital to increasing and or maintaining the standard of living of a country. GDP is, as shown in Figure 2, the central indicator having an influence on all other indicators in the policy model.

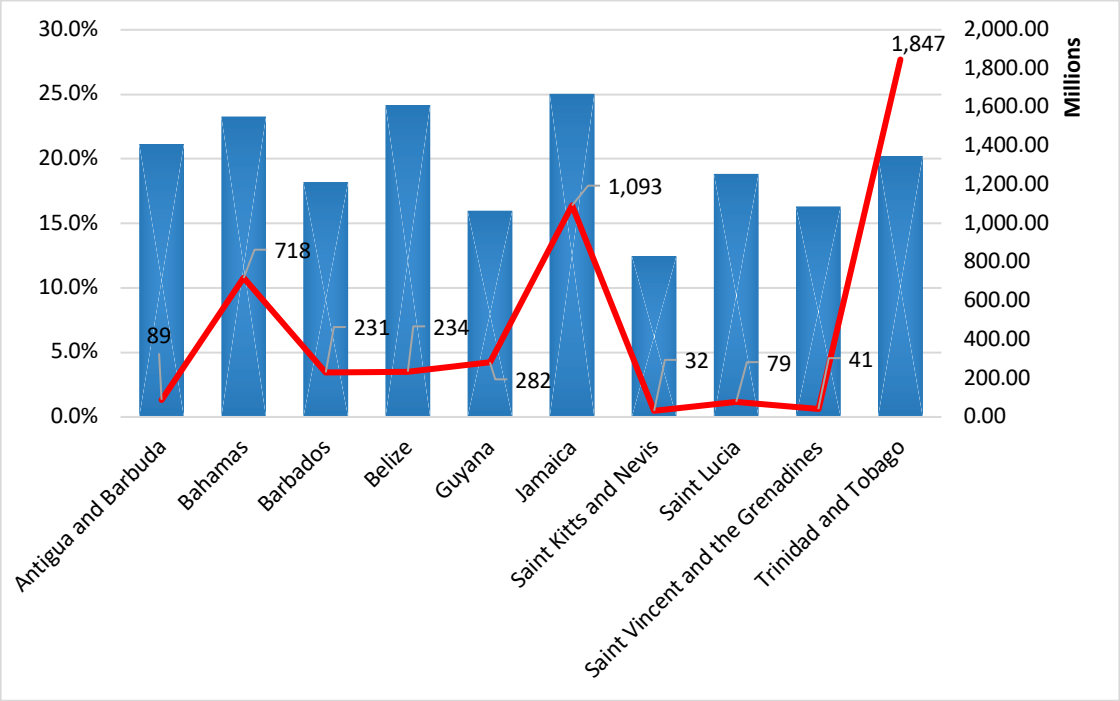
4 Empirical Results

4.1 Opportunities for Regional Import Substitution

Conducting a simple analysis of the overlap between extra-regional imports and intra-regional exports for the Caribbean suggests that there is tremendous potential for regional import substitution (**Figure *3***). The Bahamas (23.3 percent), Belize (24.2 percent) and Jamaica (25 percent) have the highest overlap rations, indicating that 25 percent of exports from these countries overlap with imports in other Caribbean countries[2]. It is possible that if other Caribbean countries purchase their imports from these three countries that exports from Jamaica, the Bahamas and Belize could rise by $2 billion. Further inclusion of Trinidad and Tobago (20 percent overlap) as a source of imports, the boost in export could double – approximately $4 billion.

[2] In 2005, Jamaica and the Bahamas held and overlap rate close to 40 percent

Figure 3: Overlap between Extra-Regional Imports and Intra-Regional Exports (% and $mn)



Saint Kitts and Nevis had lowest ratio for overlap between extra-regional imports and intra-regional exports. Less than 13 percent of exports from this country were currently being consumed in other Caribbean countries; with the closest ratio being associated with Guyana at 16 percent. Nevertheless, these countries still could benefit from a regional import substitution policy. For the Caribbean as a whole, trade would increase by $4.6 billion.

Applying the XMS approach discussed in the previous section, Table 1 provides specific details on commodities that overlap for each Caribbean country. Focussing on the commodities above 1 percent, petroleum-based products show-up in the top 10 categories for most Caribbean countries. This finding is related to the existence of chemical manufacturing industries in these islands and suggest the possibilities for agglomeration

to benefit from economies of scale. Alcoholic and non-alcoholic beverages also appear in the top 10 lists for most countries.

There are, however, a number of areas of specialisation in each island. In Barbados, civil engineering equipment and vegetable related products were identified in the top 10 list of items the country could potentially export to the region while in Saint Vincent and the Grenadines rice provided scope for export expansion. Other specialty areas were fertilisers in Guyana and Belize, alcohol, phenol, etc. derivatives in Jamaica, and ship, boat, floating structures and aircraft associated equipment in Trinidad and Tobago.

To add further perspective, table 2 provides analysis of each countries' (top 10 commodity group) importance of intra-regional exports relative to its extra-regional exports – regional orientation index (ROI). Findings suggest strong biases in numerous categories, across all countries.

Table 1: Top 10 Commodities by Overlap between Extra-Regional Imports and Intra-Regional Exports, 2015

Antigua and Barbuda		Bahamas		Barbados	
Petroleum Products	8.64%	Petroleum Products	8.64%	Petroleum Products	5.22%
Alcoholic Beverages	1.43%	Alcoholic Beverages	1.43%	Alcoholic Beverages	1.43%
Ship, Boat, Float. Structures	0.84%	Ship, Boat, Float. Structures	1.22%	Sugars, Molasses, Honey	0.58%
Iron, Steel Bar, Shapes Etc.	0.75%	Spec. Transactions Not Classed	0.85%	Civil Engineering Equipment	0.52%
Civil Engineering Equipment	0.52%	Iron, Steel Bar, Shapes Etc.	0.47%	Spec. Transactions Not Classed	0.51%
Gold, Silverware, Jewel	0.43%	Gold, Silverware, Jewel	0.43%	Gold, Silverware, Jewel	0.43%
Watches And Clocks	0.30%	Liquefied Propane, Butane	0.42%	Iron, Steel Bar, Shapes Etc.	0.40%
Vegetables	0.27%	Sugars, Molasses, Honey	0.39%	Watches And Clocks	0.30%
Crustaceans, Molluscs Etc.	0.26%	Rice	0.34%	Vegetables	0.27%
Fruit, Vegetable Juices	0.26%	Civil Engineering Equipment	0.34%	Fruit, Vegetable Juices	0.26%
Belize		**Guyana**		**Jamaica**	
Petroleum Products	8.64%	Petroleum Products	5.21%	Petroleum Products	7.35%
Fertilizer,(Other Than Those of Group 272)	1.68%	Fertilizer,(Other Than Those of Group 272)	1.10%	Petroleum Oils, Crude	2.22%
Alcoholic Beverages	1.42%	Aircraft, Associated Equipment	0.76%	Alcohol, Phenol, Etc. Derivatives	1.75%
Liquefied Propane ,Butane	1.25%	Iron, Steel Bar, Shapes Etc.	0.75%	Inorganic Chemical Elements	1.19%
Ship, Boat, Floating Structures	0.83%	Ship, Boat, Floating Structures	0.54%	Sugars, Molasses, Honey	0.85%
Iron, Steel Bar, Shapes Etc.	0.75%	Civil Engineering Equipment	0.52%	Spec. Transactions Not Classed	0.85%
Civil Engineering Equipment	0.52%	Sugars, Molasses, Honey	0.38%	Iron, Steel Bar, Shapes Etc.	0.75%
Gold, Silverware, Jewel	0.41%	Trailers, Semi-Trailer, Etc.	0.29%	Liquefied Propane, Butane	0.61%
Aircraft, Associated Equipment	0.41%	Vegetables	0.27%	Gold, Silverware, Jewel	0.43%
Other Crude Minerals	0.33%	Edible Product Preparations.	0.26%	Alcoholic Beverages	0.40%
Saint Lucia		**Saint Vincent and the Grenadines**		**Trinidad and Tobago**	
Petroleum Products	5.35%	Petroleum Products	4.20%	Ship, Boat, Floating Structures	3.62%
Alcoholic Beverages	1.43%	Alcoholic Beverages	1.16%	Petroleum Oils, Crude	2.22%
Ship, Boat, Floating Structures	0.80%	Other Crude Minerals	0.72%	Iron Ore, Concentrates	2.06%
Spec. Transactions Not Classed	0.78%	Sugars, Molasses, Honey	0.62%	Aircraft, Associated Equipment	1.52%
Iron, Steel Bar, Shapes Etc.	0.75%	Civil Engineering Equipment	0.52%	Iron, Steel Bar, Shapes Etc.	0.75%
Civil Engineering Equipment	0.52%	Iron, Steel Bar, Shapes Etc.	0.50%	Petroleum Products	0.56%
Fertilizer,(Other Than Those of Group 272)	0.45%	Rice	0.49%	Alcoholic Beverages	0.54%
Sugars, Molasses, Honey	0.43%	Fertilizer,(Other Than Those of Group 272)	0.36%	Civil Engineering Equipment	0.52%
Vegetables	0.27%	Vegetables	0.27%	Sugars, Molasses, Honey	0.46%
Aircraft, Associated Equipment	0.27%	Measure, Control Instruments	0.26%	Vegetables	0.27%

Table 2: Regional Orientation Index (by Member countries Top 10 Commodityt Group), 2015

Antigua and Barbuda		Bahamas		Barbados	
Other Meat, Meat Offal	5.16	Fixed Vegetable Fat, Oils, Other	63.03	Wood Rough, Rough Squared	3.03
Fish, Fresh, Chilled, Frozen	5.16	Cork, Natural, Raw; Waste	63.03	Nitrogen-Function. Compounds	3.02
SUGAR CONFECTIONERY	5.16	Fixed Vegetable Fat, Oils, Soft	57.71	Oilseed (Soft, Fix. Vegetable Oil)	3.02
Vegetables	5.16	Cereal Preparations	57.01	Crustaceans, Molluscs Etc.	3.02
Vegetables, Prepared, Preserve d	5.16	Glassware	30.57	Oilseed (Other Fix. Vegetable Oil)	3.02
Coffee, Coffee Substitute	5.16	Pottery	19.38	Petroleum Oils, Crude	3.02
Spices	5.16	Veneers, Plywood, Etc.	13.96	Synthetic Fibres	3.02
Oilseed (Other Fix. Vegetable Oil)	5.16	Furniture, Cushions, Etc.	11.10	Petroleum Gases	3.02
Fruit, Vegetable Juices	5.16	Wood, Simply Worked	6.21	Hydrocarbons, Derivatives	3.02
Other Organic Chemicals	5.16	Worn Clothing, Textile Articles	5.59	Leather	3.02
Belize		**Guyana**		**Jamaica**	
Maize Un-milled	9.62	Leather	4.63	Rice	21.12
Fertilizer,(Other Than Those of Group 272)	9.62	Printing, Bookbinding Mach	4.63	Eggs, Birds, Yolks, Albumin	21.12
Paper, Paperboard, Cut Etc.	9.62	Men, Boys Clothing, Knit	4.63	Wood, Simply Worked	21.12
Other Cereal Meal, Flours	9.48	Wheat, Meslin, Un-milled	4.63	Nitrogen-Function Compounds	21.12
Fixed Vegetable Fat, Oils, Other	9.02	Coal, Not Agglomerated	4.63	Organo-Inorganic Compounds	21.12
Glassware	8.92	Residual Petroleum Products	4.63	Other Plastic, Primary Form	21.12
Soap, Cleaners, Polish, Etc.	8.14	Petroleum Gases, Nes	4.63	Manufactured Leather Etc.	21.12
Vegetables	5.28	Animal Oils And Fats	4.63	Wire Of Iron Or Steel	21.12
Animal Feed Stuff	4.46	Fertilizer,(Other Than Those of Group 272)	4.63	Tractors	21.12
Fish, Fresh, Chilled, Frozen	4.16	Nitrogen-Function Compounds	4.63	Ship,Boat,Float.Structrs	21.12
Saint Lucia		**Saint Vincent and the Grenadines**		**Trinidad and Tobago**	
Fish, Dried, Salted, Smoked	5.07	Tobacco, Manufactured	1.12	Manufactured Leather Etc.	9.29
Oilseed (soft Fix. Vegetable Oil)	5.07	Wheat, Meslin, Un-milled	1.12	Fertilizers, Crude	9.28
Oilseed (Other Fix. Vegetable Oil)	5.07	Rice	1.12	Vegetable Textile Fibres	9.28
Radio-Active Materials	5.07	Maize Un-milled	1.12	Other Man-Made Fibres	9.28
Monofilament Of Plastics	5.07	Other Cereals, Un-milled	1.12	Briquettes, Lignite, Peat	9.28
Carboxylic Acids, Derivatives	5.07	Tobacco, Unmanufactured	1.12	Polymers Of Styrene	9.28
Flat-Rolled Plated Iron	5.07	Animal, Vegetable Fats, Oils	1.12	Silver, Platinum, Etc.	9.28
Stone, Sand And Gravel	5.04	Monofilament Of Plastics	1.12	Tractors	9.28
Clay, Refractive Construction Material	4.90	Starches, Inulin, Etc.	1.12	Goods, Special Transport Vehicles	9.28

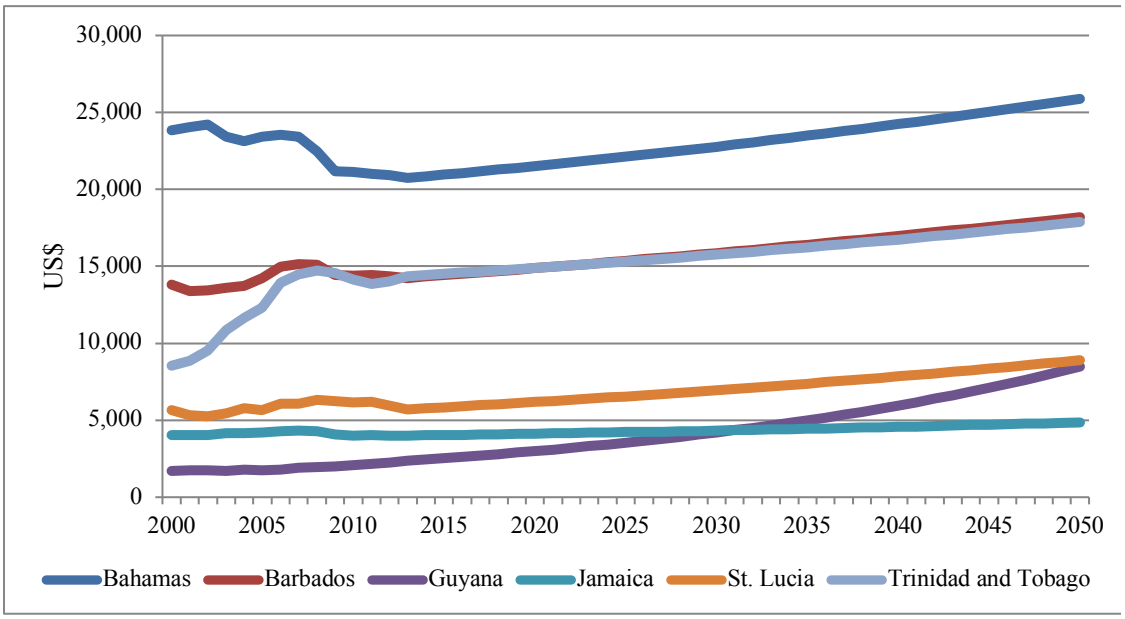
Prefabricated Buildings	4.87	Explosives, Pyrotechnics	1.12	Oilseed (Other Fix. Vegetable Oil)	9.28

4.2 Potential Impact on Key Macroeconomic Variables

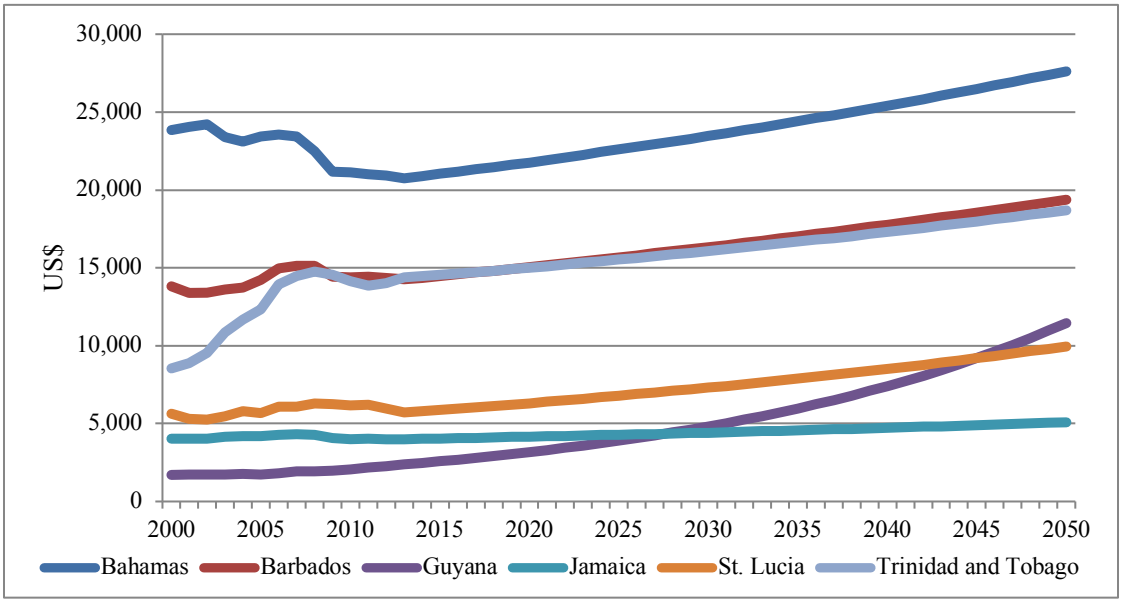
The previous section of the study suggests that there are tremendous opportunities for import substitution within the Caribbean. If Caribbean countries were to engage in some type of regional import substitution this could see intra-regional exports grow in accordance with the size of the overlap in terms of import demand. To model the potential macroeconomic impact of such an occurrence, this section of the study assumes that Caribbean countries fully exploit any overlap in the goods that they are exporting relative to what other Caribbean islands are importing.

Figure 4: Real GDP Per Capita as a Result of Import Substitution

Baseline



Under Import Substitution



Source: Authors' projections

The impact of this regional approach to import substitution on overall macroeconomic activity is provided in Figure 4 for 6 Caribbean countries under investigation for both the baseline and import substitution scenario. Most countries experience an increase in real GDP per capita, largely as a result of the increased exports revenue and likely spill-over effects on domestic consumption and investment owing to the additional demand for exports.

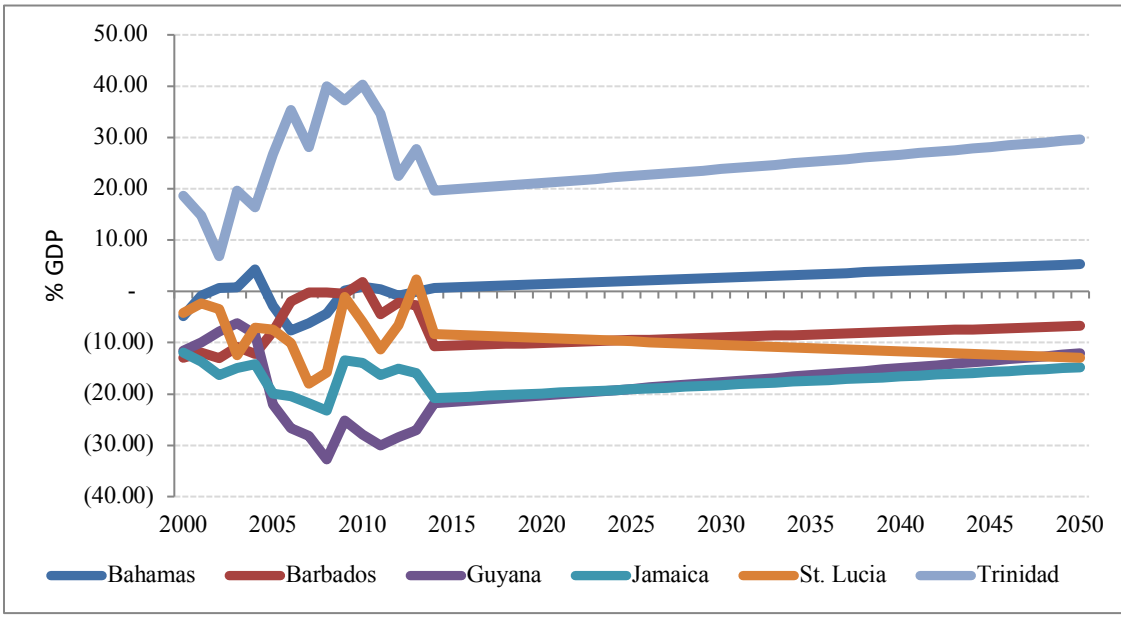
Given the relatively larger overlap that Guyana has with the goods being imported by various Caribbean countries, this island is likely to experience the largest boost to economic activity. Relative to the baseline scenario, Real GDP per capita by 2050 would be almost 29 percent larger compared with the baseline scenario, the largest projected increase for any Caribbean island.

The analysis suggests that even relatively smaller islands could benefit from the regional import substitution effort. For example, St. Lucia, a member of the Organisation of

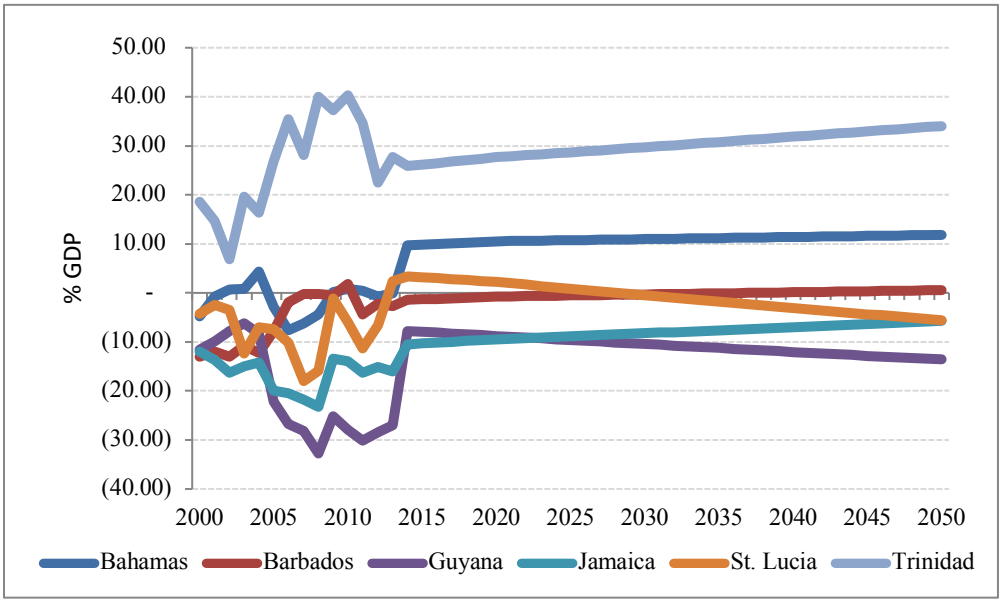
Eastern Caribbean States, is expected to experience a cumulative 21 percent (15 percent in the baseline) increase in GDP between 2017 and 2030. Between 2031 and 2050 the island is predicted to experience a further 41 percent cumulative expansion (27 percent in the baseline) in economic activity (Figure 4). Even the more service oriented islands like the Bahamas and Barbados had significant possibilities for regional trade substitution and therefore experienced a cumulative increase in per capita GDP of 29 and 33 percent between 2017 and 2050 compared with an increase of 22 percent and 25 percent, respectively.

Figure 5: External Current Account as a Result of Import Substitution

Baseline



Under Import Substitution



Source: Authors' projections

Similar pattern are experienced across the current accounts of these countries, relative to the size of their individual wealth. Figure 5 displays the positive impacts of the proposed import substitution strategy, with the possibility of some countries (Barbados in this example) erasing their account deficits. However, after the initial impact of the strategy Guyana's external current account displayed declining traits; a possible consequence of other internal elements.

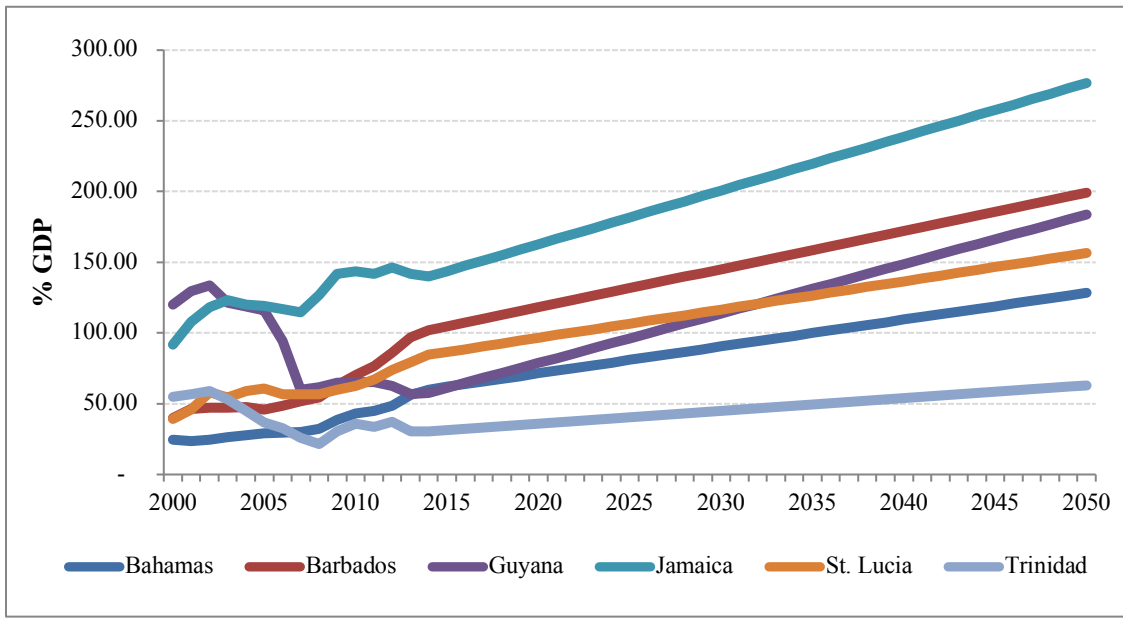
Ultimately, this turnaround in the fortunes of the regional economies could have significant benefits for the debt profile of these countries in the region. In the baseline scenario, every Caribbean country had a debt to GDP ratio of above 60 percent by 2050, with one country's ratio reaching as high as 277 percent of GDP. This improvement in the debt profile of the region largely results from the increased revenue collections as a result of the expansion in economic activity.

The reduction in the national debt is directly correlated with the potential benefit that each country could potentially obtain (Figure 6). Guyana, which experienced the largest potential gains in economic activity, could potentially pay off its national debt by 2044 and begin to build-up its national reserves. Trinidad and Tobago, which began the simulation with a lower level of national debt could do so even sooner (by 2022).

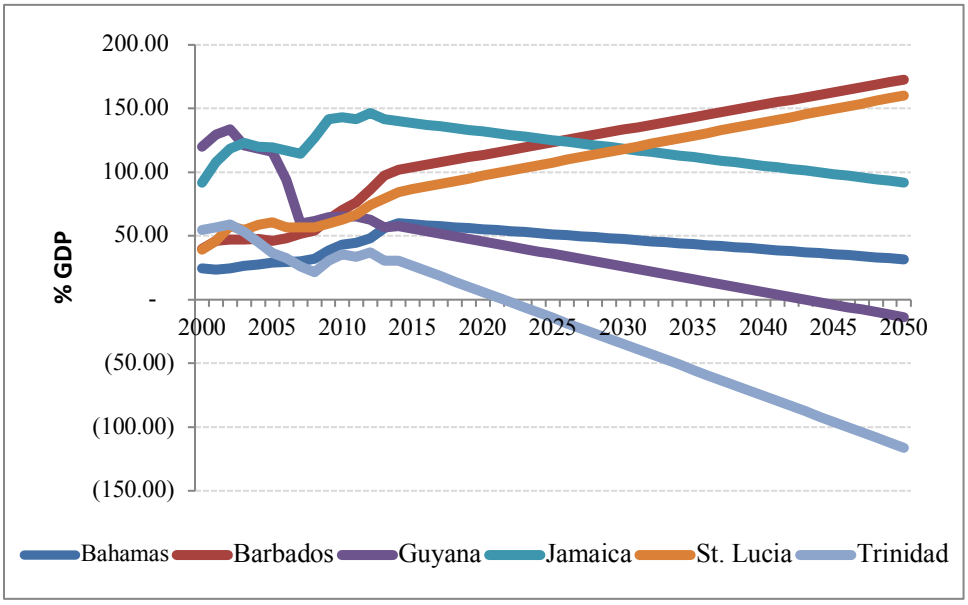
The country that could potentially benefit the most from regional import substitution is Jamaica. In the baseline this island was projected to have a debt to GDP ratio of just under 280 percent. At the end of 2050, Jamaica's debt to GDP ratio is expected to be a much lower 92 percent of GDP.

Figure 6: Impact of Import Substitution on National Debt in the Caribbean

Baseline



Under Import Substitution



Source: Authors' projections

5 Conclusions

Caribbean economies, due to their dependence on imports of goods and services, normally face a foreign exchange constraint. These imports are mainly for consumer goods, but many of these imports are also key inputs into industries such as tourism and construction, just to name a few. This paper argues that one way in which Caribbean countries can lessen this foreign exchange constraint is by engaging in more intra-regional trade. Such an approach would reduce the need for US$, once trade is done using regional currencies, and could also stimulate regional economic growth.

The additional trade generated by regional import substitution is used as an input into a regional macroeconomic model to identify the overall macroeconomic benefits for the region. This section of the study finds that economic output in the various countries under investigation should increase by a cumulative 20-35 percent up to 2050, with the

gains accruing to both small and large islands. Such gains in economic activity should lead to improvements in regional trade balances as well as debt ratios.

Implementing a strategy as bold as that proposed in this paper will not be easy. Despite having the resource potential, with pre-existing structures available, consideration would also have to be given to binding restrictions or agreements with international partners. However, given the tremendous benefits that exist for the region, it is obviously beneficial to pursue the strategies outlined. A tripartite framework (government, private sector and labour representatives) for implementation could ideally be utilised. Within the Caribbean, the Council for Trade and Economic Development can support the private sector in exploiting potential synergies by removing any existing barriers to trade and supporting the growth of regional companies. Labour as well, will have to work with both governments and the regional private sector to support the greater movement of labour, at all levels, throughout the region. Finally, the success of such a proposed initiative will equally depend on the demand – i.e. taste for the region's commodities. Though not a problem rectifiable by policy, the extent of success will also depend a comprehensive, collaborative, promotional effort at the regional level.

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