

LIMITED
LC/CAR/L.70
21 December 2005
ORIGINAL: ENGLISH

TRADE AND TRANSPORT IN CDCC ECONOMIES

This document has been reproduced without formal editing.

Table of contents

Executive summary.....	1
Introduction.....	2
1. The determinants of trade flows taking into account the transport variable	3
2. Transport issues within the WTO institutional framework	4
3. Trade trends for CDCC economies	6
4. The evolution of nominal protection.....	14
5. Transport in the Caribbean: main trends and characteristics.....	21
6. The cost structures.....	24

List of Tables

Table 1: Exports to the European Union and NAFTA as a percentage of total exports	7
Table 2: Imports from the European Union and NAFTA as a percentage of total imports	8
Table 3: Imports of CARICOM from the European Union by aggregate.....	10
Table 4: Export, import, market share and market access from main CARICOM export products to Western Europe.....	11
Table 5: Exports to the United States by special programme as percentage of the total	13
Table 6: CARICOM import market share n goods in regional trading blocs	14
Table 7: Market share of tourist arrivals for the English and Spanish-speaking Caribbean	14
Table 8: CARICOM import tariffs from regional blocs	15
Table 9: Basic tariff schedule parameters	15
Table 10: Average weighted tariff by sector and economic activity, 1998-2002	16
Table 11: Average weighted tariff by sector and economic activity, 1999-2002	17
Table 12: Average tariff rate by country, sector and economic category	18
Table 13: The Dominican Republic tariff rate distribution.....	19
Table 14: The Dominica Republic basic tariff schedule parameters	20
Table 15: Latin America and the Caribbean share of merchant fleet.....	21
Table 16: Vessel connections and estimated container flow data to and from Curacao	22
Table 17: Age distribution of merchant fleet selected Caribbean countries	23
Table 18: Comparative costs for Caribbean economies.....	25

List of Figures

Figure 1: Import duties and customs service charges as percentage of total tax revenues	5
Figure 2: Histogram of weighted tariff rates for CARICOM (2002).....	16
Figure 3: Weighted tariffs for selected CDCC economies (2003).....	20
Figure 4: Freight costs versus tariff rates for CDCC economies	21
Figure 5: Container throughput in ports of the region as percentage of total for 2003.....	24

Executive summary

This document analyses transport and trade in the economies belonging to the Caribbean Development and Cooperation Committee (CDCC). It comprises five sections.

The first one examines trade theory taking into account the transport variable. It asserts that the inclusion of transport in trade analysis modifies the standard factor proportions theory. Transport allows comparative advantage to be shifted among economies and in particular between the rich and less rich natural resource endowed economies. In this sense transport is conducive the equalization of relative prices and rewards of commodities and factors of production. Transport is also one of the elements that permit through localization and concentration of production activities the realization of *economies* of scales.

The second section addresses the transport issues as these have been dealt with by the World Trade Organisation (WTO). Transport issues are part of the broader topic of trade facilitation. The WTO provisions dealing with transport and more specifically with maritime transports which carries the bulk of traded commodities are found in articles V, VIII and X of the General Agreement on Trade and Tariffs (GATT, 1947). These provisions have been the subject of further negotiation and refinement in the Doha Round (2001) and most recently in the July package (2004).

The third section focuses on CDCC trade trends in their major markets. CDCC exports and imports are mainly destined to the United States, Europe and to a lesser extent to the Caribbean. The smaller economies, namely, the member states of the Organization of Eastern Caribbean States are mainly dependent on the European and Caribbean markets. The larger economies including the Dominican Republic are dependent on the United States market. One main characteristic is the loss in market share especially relevant for CARICOM economies in the major export markets such as the United States and Europe and also at the intraregional level. This section also argues that tariff barriers have declined over time and that in fact transport costs are as high as tariff barriers. This underscores the argument for the reduction in transport costs as a key element to promote trade.

The fourth section describes transport trends in CDCC economies. In particular it centers on the size merchant fleet and its different components.

The fifth section analyses how cost structures affect competitiveness. The section compares cost structures across Caribbean countries and more specifically CARICOM countries. One of the key components of the cost structures is vessel port costs which include terminal user and mooring charges as well as terminal charges for subset of Caribbean countries. The section also shows the cement price buildup across Caribbean economies which included landed and trading costs and freight prices. These are a measure of transport costs of one of the key trading commodities.

Introduction

Free trade theory is based on comparative advantage or on the factor proportions theory. Starting from a position of autarky countries can improve their welfare by letting countries specialize in the production of the commodities for which they have the greatest comparative advantage or in other words which is relatively cheaper to produce. The standard theory allow for the free trade in goods. However, it does not require the mobility of factors of production across countries.

In fact, according to standard trade theory, labour mobility can increase output and is thus complementary to free trade in goods under conditions of imperfect competition. Perfect competition does not require labour, or for that matter, capital mobility to achieve the equalization of factor prices. Under perfect competition factor mobility and goods mobility are substitutes and not complements as under imperfect competition.

While transport is not mentioned in most analyses as a fundamental variable, the progenitors of trade theory were much aware of its importance. In fact international trade theory was seen as international location theory. Transport facilitates trade and more to the point dynamizes the standard trade theory model by allowing the comparative advantage frontier to shift between countries. As a result countries need to necessarily be specialized in the commodities that have high local natural resource content. Transport facilitates economic development and also permits the localization and concentration of economic activity. This in turn allows the realization of economies of scale.

Transport is especially important for the Caribbean region. By far the greater majority of trade is carried through maritime transport. For the most part Caribbean countries do not have their own shipping services and depend to a greater extent on external maritime services, which have evolved towards bigger cargo ships, containerization, and a bigger role for transshipment services.

Caribbean countries have higher transport cost than most Latin American countries. Within the Caribbean region the larger economies have higher relative costs than the smaller economies. Caribbean countries also need to improve the efficiency of the customs administration, inventory and transaction costs, stabilize the intra-regional cargo lines, and improve the condition of the vessels. Most recently Caribbean countries also face the rising cost of international spot transport rates. Moreover given the importance attached to the completion and implementation of the CARICOM Single Market and Economy (CSME) the transport issue has become of paramount importance for Caribbean economies.

This document analyses trends in trade and transport as well as their relationship for countries members of the Caribbean Development and Cooperation Committee (CDCC). It comprises five sections.

The first section deals with the basic theorems of the standard presentation of trade theory and the role of transport in comparative advantage and in the factor proportions theory. The second section focuses on the transport provisions contemplated by the World Trade

Organisation (WTO). The third and fourth sections give an overview of trade transport trends in CDCC economies. The fifth section centers on the relationship between cost structures and competitiveness highlighting the importance of transport costs.

1. The determinants of trade flows taking into account the transport variable

The standard mainstream approach to international trade, the factor proportions theory, was developed by Eli Hecksher (1919) and Bertil Ohlin. The basics theorems and properties of the model were introduced by Paul Samuelson (1941, 1948 and 1949).

Free trade creates ‘welfare gains by allowing consumers and firms to purchase from the cheapest source of supply ensuring that production is located according to comparative advantage.’ In other words, free trade allows the operation of the principle of comparative advantage by suppressing the discrimination between the existing sources of supply.

The properties of the most basic model based on comparative advantage, the Hecksher-Ohlin model, are found in four well-known theorems: (i) the Hecksher-Ohlin theorem; (ii) the Stolper-Samuelson theorem ;(iii) the Rybczynski theorem; and (iv) the factor-price equalization theorem.

The Hecksher-Ohlin theorem establishes a relationship between the factor scarcity and factor embodiment in a commodity such that countries export the commodity that intensively uses the abundant factor. It provides the basis for the gains from trade argument. These refer to the increase in output and real income for a given set of inputs or domestic resources that result from trade.

The Stolper-Samuelson theorem complements the above theorem by stating that the intensive use of a factor of production for export (i.e., the abundant factor) raises its rate of return above all other prices. In turn, the consequent increase in the supply of that factor of production will lead to an increase in the output of the commodity intensive in that factor of production (the Rybczynski theorem). Finally, the factor price-equalization theorem stating that trade equalizes commodity and factor prices across countries rounds up the case for free trade.

According to recent interpretations of the standard model and more particularly of Bertil Ohlin’s work (Findlay, 1995), Ohlin had actually three theories of international trade. These are the factor proportions theory, economies of scale and geography. The latter included issues related to location and also transport. Transport was an essential and fundamental part of Ohlin’s theory of international. Transport has the initiating role in enhancing trade flows and guaranteeing under specific assumptions, the fulfillment of the main tenets of the factor proportions theory. According to Ohlin, “the theory of international trade is nothing but international location theory.”

Within this framework transport and in particular transport innovations are conducive to the equalization of differences among countries. Transport allows countries “to draw on a common pool of natural resource inputs.” As a result the comparative advantage of countries is not determined by their own endowments. Transport allows comparative advantage to be shifted

from the rich natural resource endowed country to the comparatively less rich natural resource endowed country. The better the transport infrastructure the more efficient is free trade and the better the market access. Lower transport costs has also been identified as one of the elements (jointly with industrialization and growing economies of scale) leading to geographical concentration and the localization of industry (Krugman, 1993).

2. Transport issues within the WTO institutional framework

The Caribbean region has a special interest in transport negotiations. By far the greater majority of trade is carried through maritime transport. Also the trend in maritime services has evolved towards bigger cargo ships, containerization, and a bigger role for transshipment services.

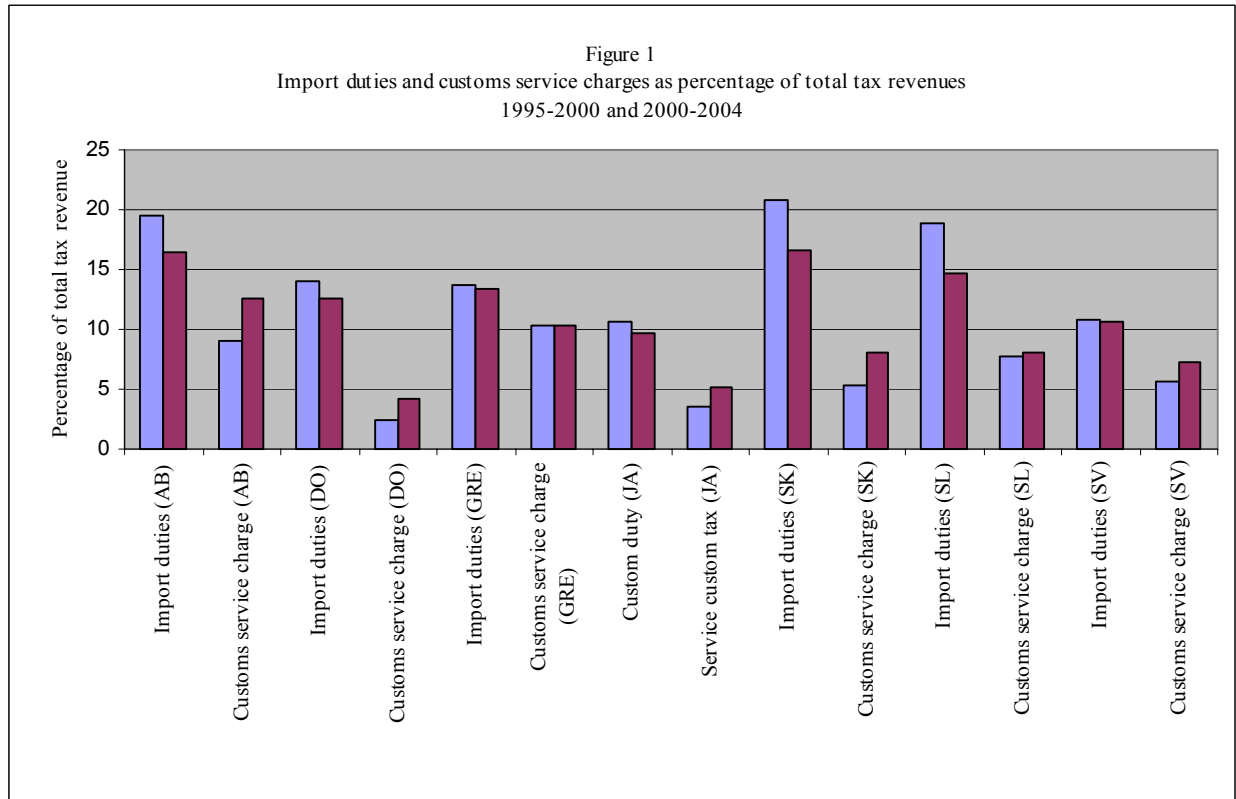
This has forced Caribbean countries to focus and to enhance and modernize their transshipment ports or to import a greater proportion of their cargo through ports that are not situated in the Caribbean. In addition, at the regional level it has provided the bigger and more developed economies with the possibility of becoming transshipment ports for the rest of the Caribbean region and of generating economies of scale associated with concentration and localization activities.

The World Trade Organization (WTO) provisions dealing with transport and more specifically with maritime transport are to be found in Article V, VIII and X of GATS on trade facilitation. Trade facilitation seeks to provide an enabling environment for trade and transport by reducing the overall cost of international trade transactions through the alignment on internationally-agreed trade and transport instruments and commercial practices.

Article V defines as traffic in transit when the passage across a territory “is only a portion of a complete of a complete journey beginning and terminating beyond the contracting party across whose territory the traffic passes.” It stresses furthermore that there shall be “freedom of transit through the territory of each contracting party” and “no distinction shall be made which is made which is based on the flag of vessels, the place of origin, departure, entry, exit or destination, or on any circumstances relating to the ownership of goods, of vessels or of other means of transport.” In addition: “charges and regulations imposed by contracting parties on traffic in transit to or from the territories of other contracting parties shall be reasonable, having regard to the conditions of the traffic.” The article finally established the principle of reciprocity, “each contracting party shall accord products which have been in transit through the territory of any other contracting party treatment no less favorable than that which would have been accorded to such products had they been transported from their place of origin to their destination without going through the territory of such other contracting party.”

Article VIII concerns the fees and formalities connected with importation and exportation. The most important provision of this article is that the fees charged should be in accordance with the services rendered and should not be used as “an indirect protection to domestic products or a taxation of imports or exports for fiscal purposes.”

This provision is important for Caribbean countries since in some cases notably that of the Organisation of Eastern Caribbean States (OECS), the reduction in import duties that followed the implementation of the CARICOM Common External Tariff (CET) parameters in 1992 was accompanied by an increase in customs services charges. Moreover for some economies customs services charges are as important as imports duties (See Figure 1 below)



Part of the mandate of the WTO on trade facilitation was highlighted in article 21 of the Singapore Ministerial Declaration (1996) which mandated by agreement of the contracting parties to “direct the Council for Trade to undertake exploratory and analytical work, drawing on the work of other relevant international organizations, on the simplification of trade procedures in order to assess the scope for WTO rules in this area.” The issue of trade facilitation was further developed in the Doha Declaration (2001) which called for the simplification, clarification, and improvement of relevant aspects of Articles V, VIII, and X of GATT 1994.

These were reasserted in the WTO July 2004 package which in addition highlighted the need to incorporate special and differential treatment. These included the general WTO provisions on special and differential treatment. In addition, these provisions asserted that special and differential treatment provisions should go beyond the traditional transitional periods for the implementation of commitments. In addition a resolution on the Doha Work Program passed in August 2004 went further and stated that “the extent and the timing of entering into commitments shall be related to the implementation capacities of developing and least developed

countries” (WT/L/579). Also members should not be obliged to undertake investments in infrastructure that surpass their means (WT/L/59).

Following the Uruguay Round (1986) the Negotiating Group on Maritime Transport Services (NGMTS) was established. Its work focused on three areas: (i) international transport services; (ii) auxiliary services; and (iii) additional commitments. The first comprised passenger and freight international transportation excluding cabotage. The second centered on cargo, handling, storage and warehouse, customs clearance, container station and depot, maritime agency and freight services. The third deals with pilotage, towing and tug assistance, provisioning, fuelling and watering, services essential to ship operations and berth and berthing services among others.

The NGMTS developed and distributed a questionnaire to gather information on the market structure and regulation of the sector and also drafted a model schedule of specific commitment on maritime transport services.

The main aim of the negotiations is to remove market access restrictions and guarantee equal treatment to all maritime service providers. The negotiations on maritime transport services were suspended at the end of 1996 due to a lack of agreement. A minority of countries have made commitments. CARICOM economies have made commitments related to international shipping services and auxiliary services.

3. Trade trends for CDCC economies

CDCC’s trade is mainly directed to the United States and Europe. Available data from 1991 to 2004 for CARICOM show that, at the aggregate level both destinations represent on average a quarter of its total merchandise exports respectively. The data shows an increase in the share of CARICOM’s exports to the United States and a decline in its exports to the European Union. (See Table 1 below).

At the country level the share of exports destined to Europe varies considerably. It is lowest for the Bahamas and Trinidad and Tobago (8% and 9% on average for 1991-2004). It is highest for the OECS accounting for 32% of total exports for the same period. Dominica and St. Vincent and the Grenadines have the highest percentage of their exports destined to the European Union (42%).

The breakdown of total CARICOM exports to the European Union by country share for 2001-2004 indicate that, Guyana, Trinidad and Tobago, and Jamaica have the most significant shares (40%, 25% and 20% respectively). Contrarily Belize, Barbados, and the OECS have the smallest shares (3%, 2% and 1%).

In the case of NAFTA, the Bahamas, Trinidad and Tobago, and St. Kitts and Nevis have the largest export shares (42%, 40% and 32%, respectively). Dominica and St. Vincent and the Grenadines have the smallest export shares (8% for both).

Overall, it can be noted that the smaller economies (OECS) are largely oriented to the European market (32% of total exports on average for 1991-2004) whereas the bigger economies (MDCs) have a clear export orientation to the United States (30% of total exports on average for 1991-2004).

Table 1:				
Exports to the European Union and NAFTA as a percentage of total exports				
Total exports to the European Union as a percentage of total exports				
	1991-1995	1996-2000	2001-2004	Average
OECS	33.84	32.43	29.57	31.95
Antigua and Barbuda		23.31		23.31
Dominica	43.16	41.96	40.03	41.71
Grenada	22.94	27.28	25.57	25.26
St. Kitts and Nevis	28.20	19.03	7.35	18.19
Saint Lucia	34.33	38.95	33.31	35.53
St. Vincent and the Grenadines	40.60	44.06	41.59	42.08
LDCs	27.28	27.68	23.45	26.14
Belize	20.71	22.93	17.33	20.32
MDCs	19.31	16.39	16.03	16.63
Bahamas, The		7.28	9.12	8.20
Barbados	24.18	24.50	23.42	24.03
Guyana		18.99	19.81	19.40
Jamaica	17.36	17.57	18.17	17.70
Suriname	23.41	20.49	19.14	21.01
Trinidad and Tobago	12.28	9.54	6.54	9.45
CARICOM	26.72	24.30	21.78	23.55
Total exports to NAFTA as a percentage of total exports				
OECS	16.04	17.29	20.21	17.85
Antigua and Barbuda		26.31		26.31
Dominica	6.76	7.97	9.74	8.15
Grenada	27.03	22.70	24.10	24.61
St. Kitts and Nevis	21.70	30.22	42.52	31.48
Saint Lucia	15.46	10.77	16.28	14.17
St. Vincent and the Grenadines	9.22	5.78	8.40	7.80
LDCs	23.70	22.37	25.01	23.69
Belize	31.36	27.45	29.81	29.54
MDCs	26.16	31.04	30.65	30.37
Bahamas, The		42.56	40.75	41.66
Barbados	25.05	24.96	25.67	25.23
Guyana		30.42	29.80	30.11
Jamaica	29.07	29.27	28.06	28.80
Suriname	13.54	18.17	16.26	15.99
Trinidad and Tobago	37.00	40.86	43.37	40.41
CARICOM	21.62	24.42	26.23	24.94

Source: WITS (2005)

**Table 2:
Imports from the European Union and NAFTA as a percentage of total imports**

Total imports from the European Union as a percentage of total imports				
	1991-1995	1996-2000	2001-2004	Average
OECS	14.18	10.88	10.95	11.44
Antigua and Barbuda		7.49		7.49
Dominica	16.36	12.22	12.14	13.57
Grenada	13.42	10.71	10.53	11.55
St. Kitts and Nevis	8.54	6.74	6.88	7.39
Saint Lucia	14.88	13.08	12.12	13.36
St. Vincent and the Grenadines	17.72	15.04	13.06	15.27
LDCs	11.15	9.10	8.48	9.69
Belize	8.11	7.31	6.01	7.15
MDCs	13.41	10.47	11.61	11.17
Bahamas, The		1.81	1.17	1.49
Barbados	12.18	11.17	12.38	11.91
Guyana	15.44	10.64	10.97	12.35
Jamaica	7.02	7.00	7.86	7.29
Suriname	17.34	21.19	21.99	20.17
Trinidad and Tobago	15.07	11.00	15.27	13.78
CARICOM	12.28	9.78	10.04	10.43
Total imports to NAFTA as a percentage of total imports				
OECS	32.42	35.18	35.87	34.87
Antigua and Barbuda		37.57		37.57
Dominica	29.64	33.18	33.77	32.20
Grenada	32.96	35.18	35.92	34.69
St. Kitts and Nevis	38.03	40.27	41.12	39.81
Saint Lucia	31.16	33.02	34.83	33.00
St. Vincent and the Grenadines	30.31	31.87	33.72	31.97
LDCs	38.21	39.81	22.81	39.51
Belize	43.99	44.44	45.61	44.68
MDCs	32.91	36.05	34.64	35.37
Bahamas, The		47.69	48.07	47.88
Barbados	33.08	33.80	33.71	33.53
Guyana	31.29	35.43	34.23	33.65
Jamaica	39.44	38.99	38.24	38.89
Suriname	31.06	24.68	22.82	26.19
Trinidad and Tobago	29.67	35.73	30.77	32.06
CARICOM	35.56	37.93	28.72	37.44

Source: WITS (2005)

At the product level CARICOM's export composition to Europe has not significantly varied over time. The available data shows that the set of products, which accounted for 86% of total exports to Europe, represented 92% of the total in 2002.

At the country level in the majority of cases the main export products are primary products. In the cases of Barbados, Belize, Dominica, Grenada, Guyana, St. Kitts and Nevis, and Saint Lucia, agricultural products are the main export products (29%, 39%, 74%, 76% and 88% of the total). For Jamaica, Suriname, and Trinidad and Tobago, mining products are the main export products (61%, 75% and 71% of the total, respectively). Antigua and Barbuda, The Bahamas and St. Vincent and the Grenadines constitute the exception as their most important export product is ships and boats (92%, 40% and 76% of the total).

By far the majority of the products exported by CARICOM to the European Union enter duty free (See Table 3 below). Note that some of the main products exported (rice, sugar, fruits and nuts) fall under the provisions of the Lomé Protocols.

CARICOM imports from the European Union are less significant than its exports. European Union imports represent 11% of the total for 1991-2004. NAFTA is the main supplier of CARICOM (37% of the total for the same period). The most dependent countries on European imports include Suriname, St. Vincent and the Grenadines, Trinidad and Tobago and Saint Lucia (20%, 15%, 14% and 13% of their total exports on average for 1991-2004). (See Table 2)

The composition of imports differs in the degree of its value added content from that of exports. Exports include mainly commodities which are labour intensive and with low technological content. Contrarily imports comprise mostly products with medium technological content. More precisely imports include mainly manufactures followed by machinery and transport equipment, agricultural materials and food products (33%, 11%, 8% and 8%, respectively on average of the total for 1996-2003).

Table 3:
Imports of CARICOM from the European Union by aggregate
Share of total (averages)
1996-2003

Product Name	Antigua & Barbuda	Barbados	Bahamas	Belize	Dominica	Grenada	Guyana	Jamaica	St. Kitts & Nevis	Saint Lucia	St. Vincent & the Grenadines	Trinidad & Tobago	Average
Agricultural Materials	9.83	5.44	6.14	14.47	9.84	8.59	7.85	4.86	8.89	10.10	8.91	4.10	8.25
Agricultural Raw Materials	0.10	0.28	0.07	0.12	0.19	0.15	0.07	0.08	0.54	0.72	1.30	0.14	0.31
Chemicals	2.01	5.66	8.05	3.60	6.12	2.45	5.01	5.24	2.33	2.61	3.22	3.55	4.15
Food	9.73	5.17	6.07	14.35	9.65	8.43	7.78	4.78	8.35	9.38	7.61	3.94	7.94
Fuels	0.22	0.05	6.06	0.07	0.03	0.07	0.31	1.32	0.06	0.08	0.02	2.45	0.89
Machinery & Transport Equipment	13.80	10.88	7.61	6.60	8.57	13.18	10.52	14.76	9.51	11.11	9.09	17.80	11.12
Manufactures	23.07	27.54	24.75	18.70	23.30	24.49	25.17	27.78	24.16	22.80	23.80	28.21	24.48
Miscellaneous Goods		0.00	0.02			0.01		0.00		0.00		0.00	0.01
Ores & Metals	0.15	0.24	0.04	0.11	0.14	0.18	0.13	0.42	0.59	0.68	1.37	0.23	0.36
Other manufactures	7.26	11.00	9.09	8.50	8.61	8.86	9.64	7.78	12.33	9.08	11.49	6.87	9.21
Textiles	0.97	0.76	1.21	0.31	0.41	0.51	0.52	0.33	0.39	0.54	0.72	0.39	0.59
Total non-oil trade	32.90	32.98	30.90	33.17	33.14	33.08	33.01	32.64	33.05	32.90	32.71	32.31	32.73

Source: WITS (2005)

	Export share	Market share		Import share		Market access
	2002	1985	2002	1985	2002	
Product/Country						
Ships and boats						
Antigua and Barbuda	91.7	0.247	2.200	0.508	0.379	NR
The Bahamas	39.6	0.284	2.242	0.508	0.379	NR
St. Vincent and the Grenadines	75.81	0.011	0.932	0.508	0.379	NR
Fruit and Nuts						
Belize	39.14	0.074	0.17	0.905	0.688	NR
Dominica	32.6	0.364	0.074	0.905	0.688	NR
Jamaica				0.905	0.688	NR
Saint Lucia	88.35	0.834	0.176	0.905	0.688	NR
St. Vincent and the Grenadines	19.83	0.346	0.134	0.905	0.688	NR
Suriname		0.233	0.069	0.905	0.688	NR
Spices						
Grenada	68.2	1.401	1.628	0.043	0.033	NR
Cocoa						
Grenada	6.6	0.139	0.037	0.347	0.137	NR
Fresh fish						
Grenada	5.5	0	0.01	0.425	0.406	NR
Suriname	1.42	0.003	0.04	0.425	0.406	NR
Sugar and Honey						
Barbados	28.75	1.053	0.489	0.245	0.189	NR
Belize	35.22	0.955	0.556	0.245	0.189	NR
Guyana	49.89	3.434	2.157	0.245	0.189	NR
Jamaica	10.72	2.509	1.599	0.245	0.189	NR
St. Kitts and Nevis	76.1	0.293	0.233	0.245	0.189	NR
Trinidad and Tobago	6.19	0.946	0.566	0.245	0.189	NR
Alcoholic beverages						
The Bahamas	35.9	0.405	1.203	0.554	0.641	NR
Barbados	9.2	0.01	0.046	0.554	0.641	NR
Fruit preserved and fruit preparations						
Belize	6.06	0.005	0.061	0.329	0.296	NR

Rice						
Guyana	14.86	0.483	2.747	0.084	0.044	NR
Suriname	4.29	5.588	1.118	0.084	0.044	NR
Ores and concentrates						
Suriname	75.76	2.465	3.392	0.571	0.257	NR
Jamaica	61.31	1.767	6.715	0.571	0.257	NR
Electrical machinery						
Dominica	14.5	0	0.017	1.511	1.376	NR
Pig Iron						
Dominica	8.7	0	0.088	0.24	0.154	NR
Rotating plants						
St. Kitts and Nevis	10.14	0	0.014	0.33	0.405	NR

Note: NR = no restrictions
Source: CAN (2004) and TARIC (2005)

In the case of the United States the trade data does not reveal a greater level of diversification. Mineral and chemical products represent the bulk of CARICOM exports to the United States in 1985 and in 2002. There is also evidence that agricultural commodities have lost market share in the United States import market.

In terms of market access conditions the United States recognizes five special import programmes. These are the Caribbean Basin Trade Partnership Act (CBTPA), the Caribbean Basin Initiative (CBI), the Generalized System of Preferences (GSP), the Civil Aviation Programme, and the special treatment to pharmaceuticals.¹ The most significant is the Caribbean Basin Initiative which accounts on average for 37% of all exports to the United States. Still 64% of all CARICOM Caribbean exports to the United States are not included in any specific program (See Table 5)

¹ There is also the production sharing programme, which refer to United States goods exported abroad for processing and returned to the United States. These are mainly textile exports and in the case of CARICOM Caribbean economies represent a small percentage of the total.

Table 5: CARICOM Exports to the United States by special program as percentages of the total 1996 – 2002						
Country	Programme					
	CBTPA	CBI	GSP	CA	Ph	NP
Anguilla	n.r.	n.r.	7.7	0	n.r.	92.2
Antigua and Barbuda	n.r.	9.7	0.6	n.r.	n.r.	89.7
Bahamas	n.r.	20.3	n.r.	0.0	6.3	73.4
Barbados	0.00	44.3	2.9	0.00	7.7	45.1
Belize	4.1	37.6	2.3	n.r.	n.r.	56.0
Dominica	n.r.	94.7	0.08	0.001	0.09	5.1
Grenada	n.r.	48.7	0.2	n.r.	n.r.	51.1
Guyana	1.9	18.7	2.5	n.r.	0.00	76.8
Jamaica	4.9	14.3	0.5	0.2	n.r.	80.3
Saint Lucia	0.0	31.4	1.9	0.0	n.r.	67.1
St. Kitts and Nevis	n.r.	73.7	1.5	n.r.	0.45	24.7
St. Vincent and the Grenadines	n.r.	36.5	1.8	3.7	n.r.	63.0
Suriname	n.r.	n.r.	2.2	n.r.	n.r.	97.8
Trinidad and Tobago	9.8	16.3	0.2	0.0	n.r.	73.8
Average	3.45	37.18	1.88	0.49	2.91	64.01
Standard deviation	3.72	25.59	2.00	1.30	3.77	26.05
Note: CBTPA=Caribbean Basin Trade Partnership Act; CBI= Caribbean Basin Initiative; GSP = General System of Preferences; CA= Civil Aviation; Ph=Pharmaceuticals; NP = No program. n.r.= Not reported. Source: On the basis of USITC (2003).						

An analysis of the major products that are not exported under any program show however that these are imported by the United States with a 0% ad valorem tariff rate and that only in some cases do other import charges apply.. Another measure of the degree to which the United States import market is effectively open to Caribbean imports that are not included into any program is the collected import tariff rate measured as the ratio of import charges to the total C.I.F value of imports. In most cases this ratio is very low.

CARICOM has experienced a loss of market share in its major export markets both in goods and tourist services. Between 1985 and 2002, the export market share of Caribbean countries in regional trading blocs such as NAFTA and the EU (Western Europe), has decreased from 0.71% to 0.27% and from 0.15% to 0.10%, respectively (see Table 6 below). It is worthy of note that the Caribbean market share has decreased in those markets that grant preferential treatment but has increased in those markets that do not grant special and differential treatment (i.e., the Andean Community).

Table 6: CARICOM's import market share in goods in regional trading blocs (In percentages) 1985-2002					
Regional bloc	1985	1990	1995	2000	2002
NAFTA	0.71	0.43	0.32	0.24	0.27
Western Europe	0.15	0.13	0.12	0.10	...
Andean Community	0.40	0.96	0.41	0.24	0.56
Mercosur	0.30	0.34	0.19	0.11	0.14
CACM	0.20	0.18	0.38	0.74	1.34
Note: ... denotes not available. Source: Competitive Analysis of Nations (2002) and WITS (2005).					

In terms of tourist services, the Hispanic Caribbean has the lion's share of tourist arrivals (70% in 2003). CARICOM's market share of Caribbean tourist arrivals increased slightly from 28% to 30% while that of the OECS has declined (7% and 5% in 1996 and 2003) (see Table 7 below).

Table 7: Market share of tourist arrivals for the English and Spanish speaking Caribbean 1996-2003			
Subregion	1996	2000	2003
OECS	6.51	5.34	5.38
CARICOM	27.54	28.66	29.65
Hispanic Caribbean	72.46	71.34	70.35
Note: The Hispanic Caribbean includes Cancun, Cozumel, Cuba, the Dominican Republic and Puerto Rico. Source: Caribbean Tourism Organization (2004)			

4. The evolution of nominal protection

As shown in table 8 below both the average and weighted tariffs for CARICOM have declined over time. The weighted tariff stood at 20% in 1998 and diminished to 15% in 2002. As well the levels of dispersion have been reduced. The standard deviation decreased from 23% to 12% between 1998 and 2002. In terms of the relationship between measures of central tendency the empirical evidence shows that that the mean is greater than the median, which in turn is greater than the mode.

	Simple average	Weighted tariff	Standard deviation	Maximum Rate	Number of domestic peaks	Number of international peaks
European Union	11.69	8.72	16.37	260	1078	8142
NAFTA	13.64	13.65	15.95	260	2497	17813
Andean Community	11.52	3.77	14.54	180	128	1205
Mercosur	11.77	5.34	14.1	210	129	1354
CACM	16.3	11.86	13.92	180	244	4214
CARICOM	15.6	19.37	18.88	260	995	6240

Source: WITS (2005)

	Tariff schedule 1998	Tariff schedule 2000	Tariff schedule 2002
Simple Average	20.0	13.5	15.1
Weighted average	20.0	13.6	14.9
Standard deviation	23.3	14.8	12.4
Maximum	200	217	100
Minimum	0	0	0
Median	17.5	8.5	14.8
Mode	5	5	5
Correlation between tariffs and import share	0.09	0.01	0.00

Source: WITS(2005)

The tariff structure at the most disaggregated level shows that the CET positions are concentrated in tariff rates ranging from 15% to 25% (41% of the total). The lower and upper tariff rate bounds (0% and >50%) represent less than 1.5% of all total tariff lines (See Figure 3 below).

The sectoral structure of the CET reveals that agriculture has the highest weighted tariff both for CARICOM and for the OECS. Using two sets of trade data (WTO data base and Trains) the agricultural sector has a weighted tariff of 24% and 19% respectively for CARICOM. The rates for industry (i.e., manufacturing) and textile and clothing are 14% and 13%, 17% and 16% for both data sets respectively. Studies dealing with earlier time periods, in particular the 1980's, report that tariffs in the manufacturing sector higher than those afforded to agriculture.² (See Tables 10 and 11 below).

² See World Bank(1991).

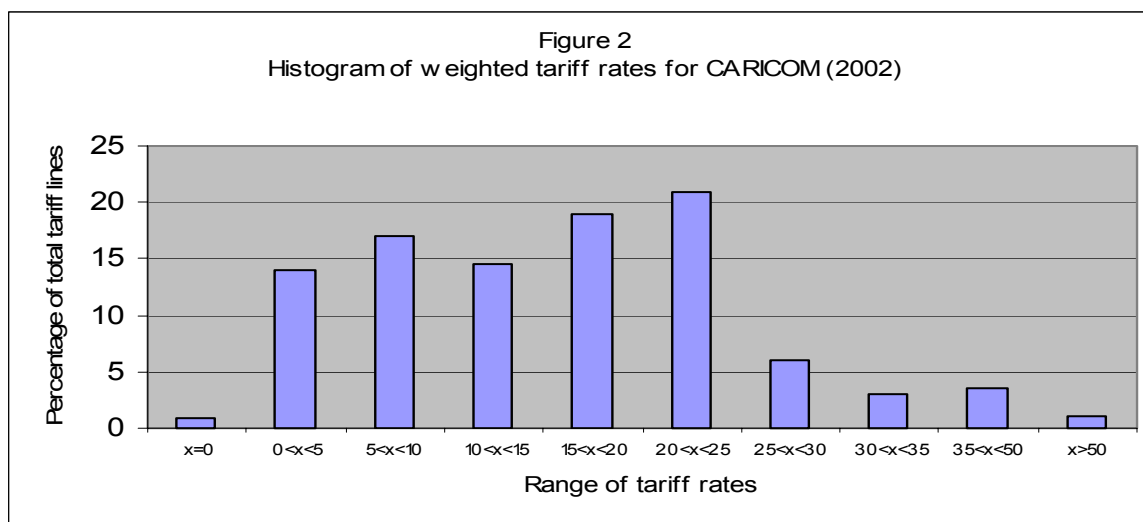


Table 10:
Average weighted tariff by sector and economic activity
1998-2002

	1998	1999	2000	2001	2002	Average 1998-2002
CARICOM						
Agriculture	25.1	17.5	28.0	29.2	17.6	23.5
Industry	13.3	11.2	11.7	11.8	22.0	14.0
Petroleum	6.5	6.3	8.1	8.2	12.8	8.4
Textile and clothing	18.4	13.3	15.8	16.0	22.0	17.1
Capital goods	8.0	5.9	7.3	7.5	24.8	10.7
Consumer goods	24.1	18.1	17.5	18.1	21.8	19.9
Intermediate goods	8.1	5.2	8.7	8.7	16.5	9.4
Raw materials	15.6	13.1	27.6	27.4	14.0	19.5
OECS						
Agriculture	25.1	24.6	18.4	18.4	16.1	20.5
Industry	13.3	12.5	10.6	10.6	11.5	11.7
Petroleum	6.5	6.5	7.8	7.1	7.3	7.0
Textile and clothing	18.4	17.5	16.5	17.0	19.3	17.7
Capital goods	8.0	7.6	6.8	7.7	7.3	7.5
Consumer goods	24.1	23.1	16.4	16.4	16.8	19.3
Intermediate goods	8.1	7.5	7.7	7.6	6.7	7.5
Raw materials	15.6	15.6	11.1	9.7	7.7	11.9

Source: WTO; WITS (2005)

Table 11: Average weighted tariff by sector and economic activity 1999-2002					
	1999	2000	2001	2002	Average 1999-2002
CARICOM					
Agriculture	19.1	17.7	19.7	19.6	19.0
Industry	20.12	11.6	7.8	10.8	12.6
Petroleum	11.0	6.2	4.4	3.9	6.4
Textile and clothing	20.8	14.3	12.6	15.6	15.8
Capital goods	22.7	7.5	3.9	8.0	10.5
Consumer goods	20.7	16.4	15.8	18.9	18.0
Intermediate goods	17.0	6.6	5.8	7.7	9.3
Raw materials	17.2	9.6	5.9	5.7	9.6
OECS					
Agriculture	19.1	18.6	17.7	17.5	18.2
Industry	16.8	14.7	12.1	11.8	13.9
Petroleum	8.7	8.4	7.9	7.8	8.2
Textile and clothing	19.7	19.7	17.3	17.6	18.6
Capital goods	20.2	12.7	9.5	8.6	12.8
Consumer goods	18.1	17.8	16.2	16.3	17.1
Intermediate goods	13.4	11.4	8.6	7.9	10.3
Raw materials	16.0	13.2	12.8	12.1	13.5
Source: Trains; WITS (2005)					

As expected the distribution of tariffs by economic category of imports shows that the tariffs on consumer goods is greater than that on capital goods, intermediate goods and raw materials indicating that the CET yields positive levels of effective protection. On average for some of the databases the weighted average tariff on final consumption goods (20%) for CARICOM is twice that of intermediate and capital goods (roughly 10%). (See Tables 11 and 12 above).

Comparisons at the country level could only be carried out using Trains data. The sectoral distribution of tariffs shows that Barbados and Bahamas have the highest tariffs on agricultural and manufacturing products (20% and 32% and 29% and 17% respectively). St. Vincent and the Grenadines and Trinidad and Tobago exhibit the lowest tariffs in agriculture and manufacturing respectively (16% and 8% respectively) (See Table 12 below).

In terms of economic classification the Bahamas has the highest tariffs for capital goods, consumer and intermediate goods (34%, 26% and 25%). Trinidad and Tobago, Belize and Guyana have the lowest tariffs for each of these categories (6.1%, 12.8% and 6.7%) (See Table 12 below).

Table 12:
Average tariff rate by country, sector and economic category
1999 – 2002
Average

	Average tariff by sector				Average tariff by economic Category			
	Agriculture	Industry	Petroleum	Textile and clothing	Capital goods	Consumer goods	Intermediate goods	Raw materials
Bahamas	19.8	28.7	16.8	26.0	34.0	26.3	25.3	16.2
Barbados	32.0	17.1	7.6	18.4	11.6	21.6	13.8	36.7
Belize	18.2	9.5	4.0	16.0	8.7	12.8	9.5	15.6
Jamaica	17.1	10.5	4.8	14.3	6.9	16.1	6.8	6.9
Guyana	20.2	12.2	11.3	16.4	10.0	16.5	6.7	15.9
Surinam	23.0	11.3	7.0	16.8	11.8	14.8	14.1	10.4
Trinidad and Tobago	15.8	8.2	7.2	10.9	6.1	15.7	7.8	6.0
Antigua and Barbuda	21.0	15.2	7.8	18.3	14.5	17.9	11.0	21.7
Dominica	20.9	12.5	7.4	16.2	10.5	18.0	10.6	11.4
Grenada	14.5	16.1	10.9	14.5	14.5	16.1	10.9	14.5
St. Kitts and Nevis	16.3	13.4	8.8	19.7	12.3	16.8	9.1	10.6
Saint Lucia	16.8	13.6	7.8	18.8	14.1	16.8	10.2	9.7
St. Vincent and the Grenadines	15.5	13.0	8.0	18.1	11.2	16.2	10.4	10.1
OECS	17.5	14.0	8.5	17.6	12.9	17.0	10.4	13.0
LDCS'	17.6	13.3	7.8	17.4	12.3	16.4	10.2	13.4
MDC's	21.6	11.9	7.6	15.4	9.3	16.9	9.8	15.2
MDSC's w/T Trinidad	23.1	12.8	7.7	16.5	10.1	17.3	10.4	17.5

Note: The average computations for the MDC's do not include the Bahamas.
Source: Trains data base. WITS (2005)

In the case of the Dominican Republic Table 13 and 14 below show, respectively, the evolution of the distribution of the tariff schedule and its basic parameters between 1990 and 2001. During 1990-1998, more than 50% of tariff lines were located in the upper tariff echelons ranging from 20% to 35%. In 2001, the tariff structure exhibits the opposite structure. That is, more than 50% of all tariff lines are assigned tariffs of 3% and 0%, respectively, and thus most of the tariff lines belong to the lower echelons.

Table 13: The Dominican Republic Tariff rate distribution 1990-2001 (in percentages)			
Tariff Rate	Tariff Schedule		
	1990-1998	1998-2000	2001
40	0	0.0	0.4
35	10.7	10.7	0.0
30	16.5	16.4	0.0
25	14.4	10.2	0.4
20	9.0	8.8	26.7
15	8.1	5.6	0.0
14	0.0	0.0	6.6
10	25.6	24.5	0.0
8	0.0	0.0	11.1
5	9.5	8.0	0.0
3	6.0	4.5	41.3
0	0.0	11.3	13.5

Source: On the basis of official data provided by the Ministry of Finance

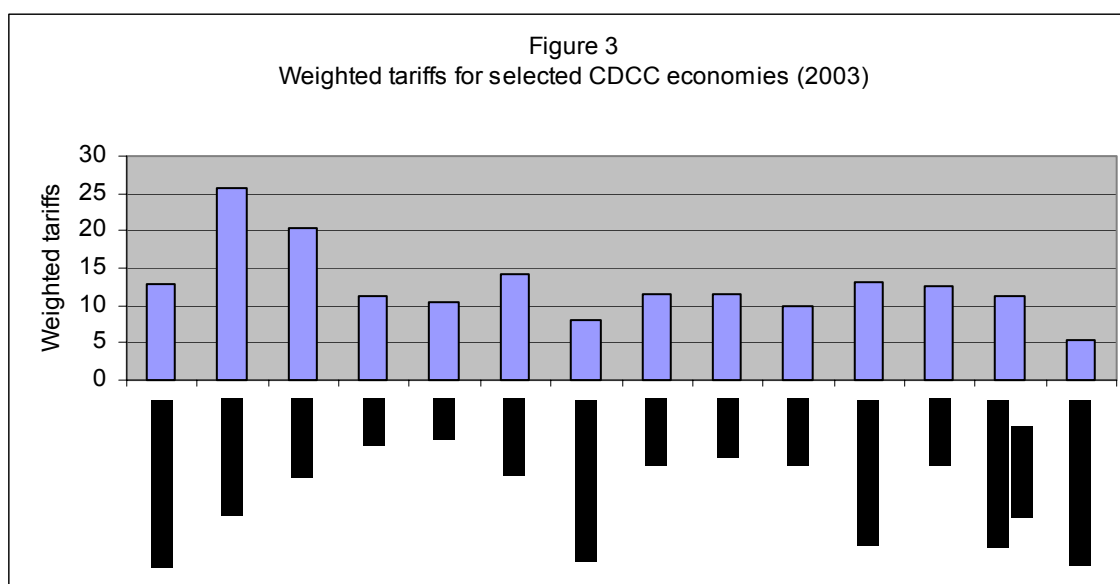
Most tariff lines are included in the tariff rate of 3% which represents 41% of all tariff lines and are followed by 20%, 0% and 8% representing 27%, 14% and 11% of the total. Thus for all purposes it is a four-tier tariff schedule. The main consequence is the decline in the average and weighted tariff rate and the reduction of the tariff dispersion.

Overall a comparison of the 1990-1998 and 2001 tariff schedules show that the mean tariff has declined substantially from 18% to 9%. The standard deviation has also decreased from 10% to 8%. Finally the 2001 tariff schedule is more balanced in terms of its relations between the mean, the median and the mode. The median and mode coincide at 3% and are lower than those corresponding to the previous tariff schedules 15% and 10%, respectively (see Table 14).

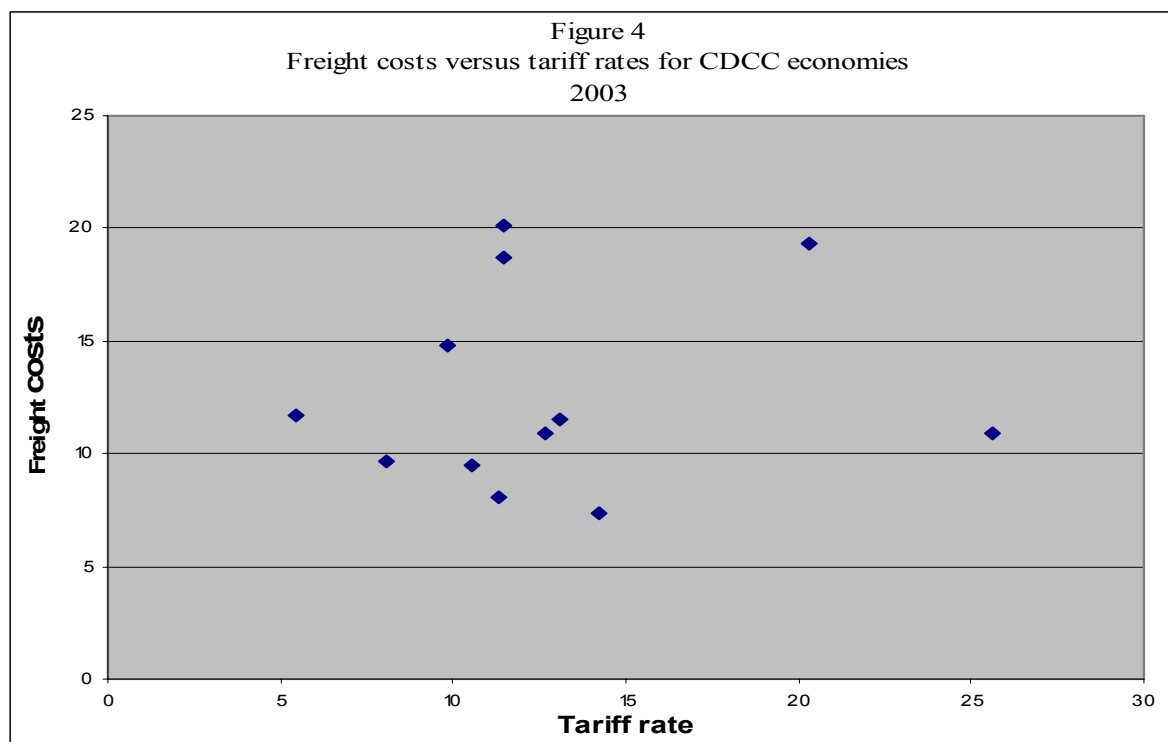
Table 14: The Dominican Republic Basic tariff schedule parameters			
	Tariff schedule 1990-1998	Tariff schedule 1998-2000	Tariff schedule 2001
Average	18.2	16.6	8.6
Weighted average	18.6	16.8	8.6
Standard deviation	10.3	11.3	8.0
Maximum	35	35	40
Minimum	0	0	0
Median	15	15	3
Mode	10	10	3

Source: On the basis of official data provided by the Ministry of Finance

As it currently stands Antigua and Barbuda, the Bahamas, Barbados, Dominica, St. Kitts and Nevis and Saint Lucia have tariff rates above the average (12.7%) (See Figure 3 below).



The reduction in overall tariff barriers that has taken place over time has underscored the importance of non-tariff barriers such as transportation costs, and the need to reduce these to stimulate trade flows. Figure 4 below plots freight costs as a percentage of imports and tariff rates for CDCC economies for 2003. The figure shows that most countries have freight costs that are higher than their respective tariff rates. The reduction of transport costs may be thus as important a factor to stimulate trade as the diminution in tariff rates.



5. Transport in the Caribbean: main trends and characteristics

The size of the merchant fleet for Latin America and the Caribbean has increased between 1980 and 2004. In 1980, Latin America's and the Caribbean's share of the world's merchant fleet represented 0.94% and 3.2%, respectively. It increased to 4.4% and 4.1% in 2004 (See Table 15 below). The composition of the fleet was mainly concentrated in dry bulk carriers and general cargo, and to a lesser extent in tankers and container ships. Dry bulk carriers and general cargo represented both 29% of total merchant fleet. For their part, general containers and tankers accounted for 17% and 18% of the total.

Table 15:				
Latin America and the Caribbean				
Share of merchant fleet, 1980-2004				
	1980	1990	2000	2004
Caribbean	0.94	1.22	3.73	4.37
LA	3.19	3.89	4.21	4.10
Source: UNCTAD (2005)				

Dry bulk shipping services carry metals and mineral products which are important in the case of Jamaica for the specific products of bauxite and alumina. However, most of the transportation involving dry bulkers is concentrated along the South American region (in particular in Brazil, Colombia and Venezuela).

Tankers carry petroleum and petroleum and their trade is significant in the case of the Caribbean and in particular for oil producing countries such as Trinidad and Tobago and Suriname and also for those economies that play the role of transshipment ports of hub centers such as the Netherlands Antilles. Trade of petroleum products is undertaken in small tankers ranging, according to UNCTAD between 25,000 and 35,000 dwt.

In the case of producing countries such as Trinidad and Tobago, the direction of trade originates in refineries in the producing countries to United States ports. Trinidad and Tobago's exports of petroleum products to the United States account for 69% of the total. Trinidad and Tobago. Exports of natural gas represent 44% of the total.

	To Curacao			From Curacao		
	Dwt	No. Ships	Container flows	Dwt	No. Ships	Container flows
Total	5,101,597	553	34,919	5,183,789	558	37,100
Aruba	1,133,767	115	139	1,189,869	104	279
Venezuela	1,184,208	99	517	1,928,878	174	803
Trinidad and Tobago	379,286	26	211	530,332	52	294
Panama	376,548	28	2,100	27,268	2	1,535
Colombia	964,713	71	554	764,038	44	777

Source: Veenstra et al. (2004)

Available transport data in the case of Curacao shows that the majority of trade is carried with Aruba and Venezuela (22% and 37% of the total of the contained flow from Curacao) and to a lesser extent with Colombia (15%) of the total. Available data also shows that 70% of the Netherlands Antilles exports to the United States are petroleum products. More specifically the exports are concentrated in two products (Naphthas, except motor fuel or motor fuel blending stock (BBL) and No 6-type fuel oil under 25 degrees API having saybolt universal viscosity at 37.8 degrees centigrade of more than 125 seconds (BBL)) (See Table 16 above).

General cargo and contained shipping services are significant for the Caribbean region for the transports of perishable and other commodities such as for example bananas in the case of the Windward Islands. The Caribbean accounts for the largest regional share (28% of the total) due to the dynamism of transshipment activity (See Figure 5). The greater majority of the transshipment activity in the Caribbean is carried out in the ports of Trinidad and Tobago.

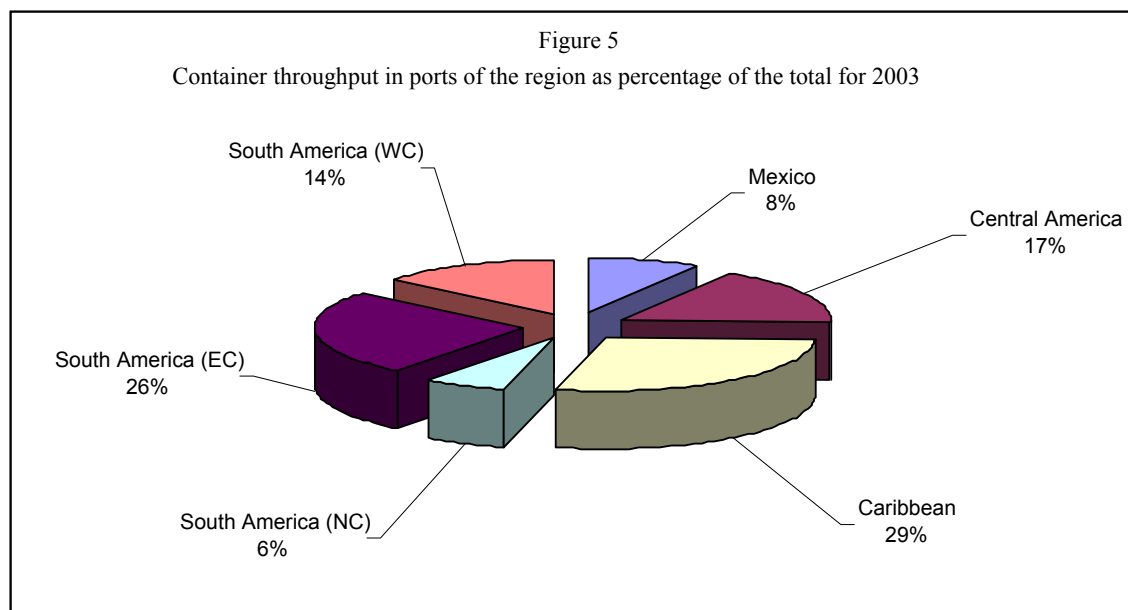


Table 17:
Age distribution of merchant fleet
Selected Caribbean Countries

	All	Tanker	Dry bulk carriers	General cargo	Container ship	Other
Anguilla	23.5			23.5		
Antigua and Barbuda	9.1	17.7	10.8	11.2	7.4	9
Barbados	13.9	8.9	13.8	18.8		21.9
Belize	21	21.9	22.1	20.4	22.3	21.3
British Virgin Islands	23			23.5		12.7
Cuba	23.4	23.5	23.5	23.5		23.3
Dominica	20.8	19.9	23.5	23	23.5	15.4
Dominican Republic	22.5			23.5		16.7
Grenada	22.8			23.5		7
Guyana	22.8	23.5		23		22
Haiti	23.5			23.5		23.5
Jamaica	21.6	23.5	21.4	23.5		12
St. Kitts and Nevis	23.5			23.5		
St. Vincent and the Grenadines	21.5	22.2	21.1	22.2	19	21.3
Suriname	20	17.7		23.5		7
Trinidad and Tobago	19.9			23.5		19.8
Average	20.8	19.9	19.5	22.1	18.1	16.6
Developing countries	16.7	16.3	19.1	18.3	8.3	19.1
World fleet	12.3	10.3	13	17.5	9.4	15.6

Source: UNCTAD (2005)

Container traffic is concentrated in few ports. According to UNCTAD (2005) “in 2003, the top 10 ports which make up 12% of 83 surveyed ports accounted for 52% of regional contained traffic.” Two Caribbean ports Kingston and Freeport are among the 20 top container ports in Latin America and the Caribbean. They account for 15% of the total.

The average age for the merchant fleet in the Caribbean was estimated at 21 years. The fleet is slightly older than the developing country or world fleet (16.7 and 12.3 years old). General cargoes, tankers and dry bulk carriers account for the oldest vessels (22.1, 19.9 and 19.1 years of age respectively) (See Table 17 above).

6. The cost structures

The competitiveness of firms and countries is determined to a large extent by their cost levels and structure. Costs include prime costs (mainly wages and raw materials) and the overhead costs. The price of the product then reflects the combination of the cost level and structure and the mark-up. Cost levels and structures and mark-ups vary across the region (See Table 18 below).

As example energy costs (mainly electricity) represents 8% of total costs in the case of St. Vincent and the Grenadines but lower in the rest of the region. In the same way, the mark-up can represent in some cases 25% of the production cost. In turn price is one key determinant of the competitiveness of firms and countries.

As a general rule firms or countries that have lower costs have a greater potential to improve their competitiveness. In the particular case of the Caribbean region some countries such as Trinidad and Tobago have lower costs due the comparative large scale of production, access to lower cost materials due plainly to natural resource endowments (comparative advantage) and to marketing strategies based on a trade-off between the volume of sales and profit margins.

Other CARICOM members, notably the OECS, have higher prime costs resulting from a higher level of the wage rate, and higher overhead costs. The wage rate level is ultimately a government policy decision even in the case of the private sector. That is the government wage policy influences to a large extent the private sector wage policy.

Overhead costs, in the smaller economies are higher. The electricity cost (US cents/kWh) is above 0.15 for the OECS while for the rest of CARICOM it ranges from 0.03 for Trinidad and Tobago to 0.25 for Guyana. The difference can be explained in terms of size considerations. It can also be attributed to mistaken decisions involving fixed capital. St. Vincent and the Grenadines which has the highest electricity cost within the OECS and perhaps CARICOM is a case in point. The electricity plant (VINLEC) whose generation capacity largely surpasses the demand for electricity charges according to installed capacity.

Table 18:
Comparative costs for Caribbean economies

	Cement price buildup			Port Costs			Electricity Costs	Transportation costs	Wages	Tele communications
	Landed cost	Average trading cost	Freight prices	Berth Occupancy	Mooring charges	Harbour dues	Kwh	(Ocean freight rates)		
Barbados				1025.60			0.11	1235	1.00	0.65
Jamaica						504.14	0.11	1519	0.80	0.25
Guyana			12.00				0.18	1135		0.57
Surinam			13.50				...	1165		
Trinidad and Tobago				325.53	159.00	724.55	0.03	....	1.27	0.72
Antigua and Barbuda	...	...	...	298.20	55.50	438.42	0.17		3.28	
Dominica	23.81	3.53	12.00	222.00	61.05	221.40	0.26	1790	1.81	0.61
Grenada	8.23	5.51	10.00	179.20	111.00	296.00	0.16	1780	2.12	0.61
St. Kitts and Nevis	38.02	3.69	13.00				0.16		2.87	0.61
Saint Lucia	12.37	6.73	10.00	88.80	29.60		0.17	1385	...	
St. Vincent and the Grenadines	8.23	5.51	10.00	148.00	64.80	188.19	0.36	1635	1.32	1.20

Note: Figures computed on the basis of official data.

Table 18 above shows comparative costs for cement price buildup (as a proxy for the construction cost), vessel port costs, electricity costs, transportation costs, wages, telecommunications, fuel costs and factory rental. For comparison purposes all data are expressed in United States dollars.

The cement price buildup consists of three components, landed costs, average trading costs, and freight prices. Landed cost includes port/cargo and tonnage dues, landing charges, transport dock charges and stevedoring. Average cost comprises transport, average handling and burst of bags costs.

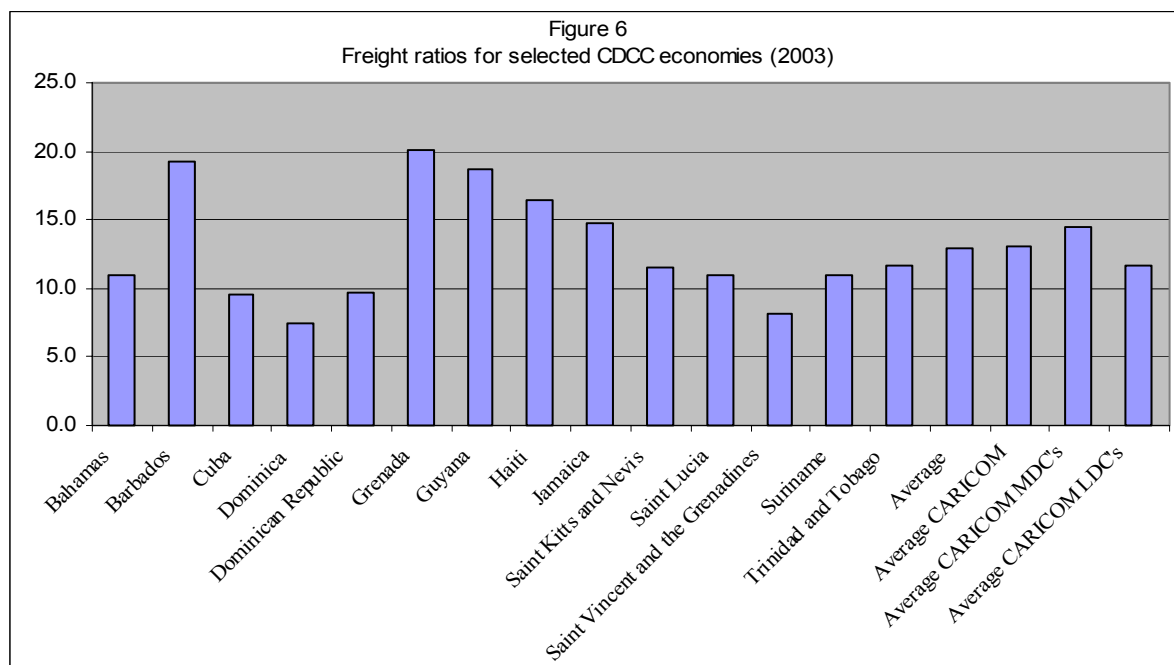
Vessel port costs include terminal user and mooring charges, and terminal charges. The data was provided by PLIPDECO. The data is made comparable by using a sample vessel, the Tropic Carib. Specs. The vessel has the following specifications NRT = 3,601; GRT = 10,851 and LOA = 159.9).

Electricity costs are defined in terms of US cents per kilowatt hour. Transportations costs refer to ocean freight rates of shipping one 20 or 40 foot container from a Caribbean country to Jamaica.

Telecommunication cost is the international daytime rate per minute from the country of origin to the United States. Fuel cost is the price of gasoline (unleaded) and diesel per litre. Factory rental is the cost per year per sq. foot.

Data on wages is expressed on an hourly basis and is shown for the minimum wage, and skilled and unskilled workers when available. In the case of the minimum wage, data for Saint Lucia refers to the manufacturing and tourism sectors. For Jamaica and Trinidad and Tobago the minimum wage is the national minimum wage. In the case of St. Kitts and Nevis, the minimum wage is that paid in the manufacturing sector (in the Hotel and Casino sector the minimum wage is 1.41 US).

The freight ratio (freight cost divided by import value) equaled on average to 13.7 for a set of CDCC countries which is higher than the average for the rest of Latin America. The CDCC countries that exhibit the highest freight ratios are Barbados, Grenada and Guyana (19.3, 20.1 and 18.7). Dominica, St. Vincent and the Grenadines and the Dominican Republic have the lowest freight ratios (7.4, 9.7 and 8.1, respectively).



There are also other costs which are higher in the Caribbean. On such cost is the delay to clear customs, which is a third higher in the Caribbean than in other regions. In addition intra-regional cargo services are irregular and the vessels are in poor condition. Larger costs of inventory implies higher opportunity costs of exporting, implies higher costs of storage and safe keeping. The cost ports in the OECS are according to the World Bank (2005) “notoriously high” Also in the OECS, there is “excess capacity of storage, transportation, and distribution, infrastructure that raises the retail cost for petroleum products”

Caribbean transport and trade performance has had to confront the rising cost of international spot transport rates. This phenomenon is traced on the one hand to a mismatch between the supply and the demand of maritime transport. While the demand has experienced sustained growth the supply has witnessed a marked contraction. On the other hand, the different components of costs have experienced a rising trend. These include the costs of insurance, gasoline, leasing, and acquisition process. Caribbean countries also will have to grapple with the international Ship and Port Facility Security Code (ISPS) and the U.S. Maritime Transport Security Act (2002) which raises the cost of trade to very high levels and which acts as a deterrent to the development on trade.

According to traditional customs theory differences in cost structures can be seen a giving rise to greater specialization, trade creation and increased welfare. However, in the case of CARICOM the differences in cost structures as a hindrance to greater diversification and trade creation. Indeed, differences in cost structure are seen as leading to a cumulative process of

asymmetries such as that described by Verdoorn's Law³ not only between Caribbean countries and the rest of the world but also among Caribbean economies leading to a widening of existing disparities.

³ In a nutshell Verdoorn's Law establishes a relation between growth of output and productivity growth. It states that greater output leads to greater productivity. In the particular case referred to above lower costs lead to greater output which in turn induces a faster rate of growth of productivity. See, McCombie J., Pugno, M. and Soro B. (2002) Productivity growth and economic performance (Macmillan: New York).