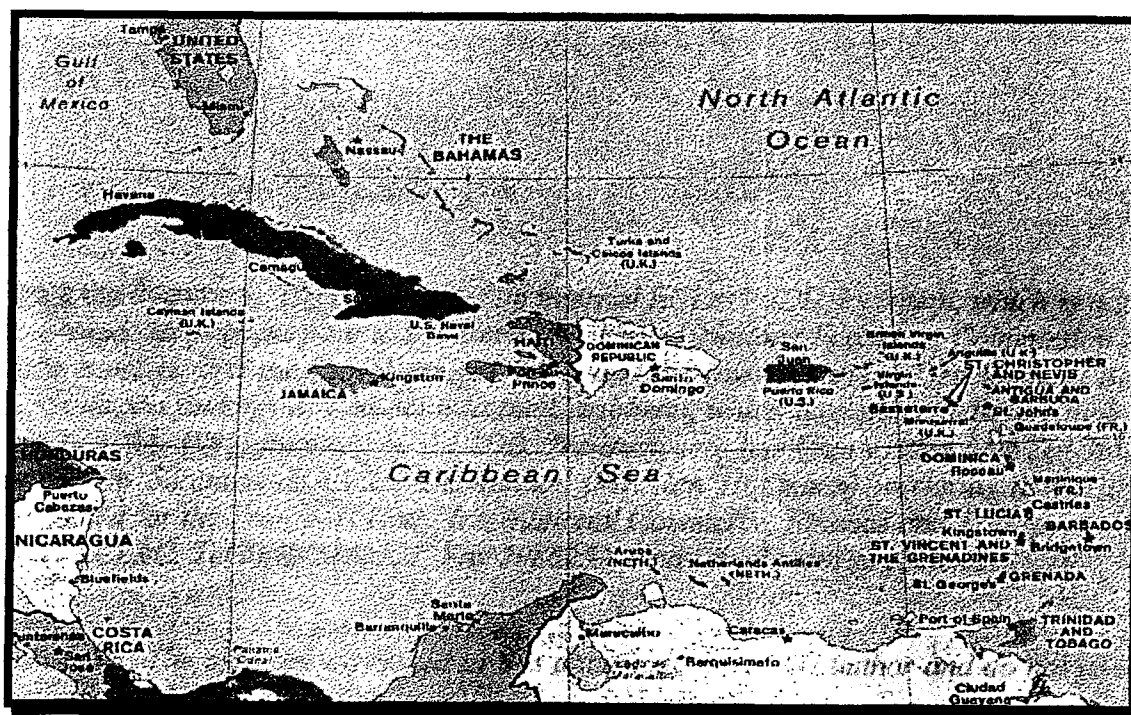


MARITIME TRANSPORT IN THE CARIBBEAN

The potential of improving maritime transport
in the Caribbean, and the potential impact
of such improvements on Caribbean
trade and integration



Internal document, for IDB and ECLAC use only

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11 July 1997



About the document: *The document is an internal ECLAC/ IDB document, which is not to be quoted. Its sole purpose is to inform the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) and the Inter-American Development Bank (IDB) on the findings of a mission to the Caribbean, which took place between June 12 and June 24, 1997, financed by the IDB. The document has been written between July 1 and 11 in Santiago de Chile. The author (Mr. Jan Hoffmann) works as a maritime economist for the Transport Unit / International Commerce, Finance and Transport Division / ECLAC. Tel 56-2-2102131, Fax 2080252, email jhoffmann @ eclac.cl.*

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Glossary

ACS	Association of Caribbean States
CARICOM	Caribbean Community
CBI	Caribbean Basin Initiative
CDB	Caribbean Development Bank
CDCC	Caribbean Development and Cooperation Committee
CET	Common external tariff
CSA	Caribbean Shipping Association
Dwt	Dead Weight Ton, a measurement of a ship's capacity to carry cargo
ECLAC	Economic Commission for Latin America and the Caribbean
FTAA	Free Trade Area of the Americas
Grt	Gross Register Ton, a measurement of a ship's size
IDB	Inter-American Development Bank
ISM code	International Safety Management code
JMI	Jamaica Maritime Institute
LoLo	Lift-on, Lift-off: Loading and discharging with cranes
NAFTA	North American Free Trade Area
OAS	Organization of American States
OECS	Organization of Eastern Caribbean States
RoRo	Roll-on, Roll-off: cargoes are loaded and unloaded with trucks
STCW	Convention on Standards of Training, Certification and Watchkeeping
TEU	Twenty foot equivalent unit. An ISO standard container (20 feet x 8 feet x 8 feet) is utilized as a cargo groupin unit for the carriage of general or break-bulk cargoes. The TEU designation is also employed as an indication of vessel carrying capacity, as well as port throughput.
WISCO	West Indian Shipping Corporation

EXECUTIVE SUMMARY

A. GENERAL ANALYSIS

Dependency on foreign trade: The Caribbean countries are more dependent on foreign trade than most other countries in Latin America and the Caribbean. The weighted average figure for foreign trade (imports and exports) as a proportion of the GDP is 78% in the Caribbean and 25% in Latin America.

The cost of transport: Caribbean countries pay a larger proportion of the value of their imports for transport and insurance than the world average. World wide, transport and insurance costs add up to 5.4% of the f.o.b. value of imports. The aggregated figure for Latin America and the Caribbean is 7.5%. Most individual Caribbean countries pay between 10% and 20%. Higher port tariffs and sea-freight rates are part of the explanation for these higher figures.

Trade patterns: Most Caribbean countries have a deficit as far as the value of merchandise trade is concerned. Volume-wise, some countries have a surplus because they export relatively low value commodities and import high value consumer and investment goods. During the last three years, the volume has fluctuated more than its value. Individual countries usually depend on the export of few products for a limited number of destinations. CARICOM as a whole, however, has a diversified portfolio of exports, such as petroleum, bananas, garments, soap, bauxite, and many other products. Intra-CARICOM exports are 16% of the total; in some smaller countries this figure reaches up to 60%.

Transport and trade: Inexpensive and efficient maritime transport promotes trade. At the same time, due to economies of scale, a higher volume of trade also leads to more inexpensive and efficient transport. High transport costs may be a limiting factor that make Caribbean goods uncompetitive in foreign markets. However, it does not seem justified to state that "no" trade is the result "non-existent" transport because shipping services can adapt faster to changed production and trade patterns than vice versa.

Transport and transshipment: Several ports in the Caribbean increasingly handle cargo which originates from and heads for other countries by "transshipping" containers from one vessel onto another one. This service attracts additional shipping lines to the port, which in turn has the potential to promote its own foreign trade.

Transport and diversification: Although trade diversification might be commercially and politically desirable, it must be born in mind that transport services which specialize on specific products and destinations are less expensive and allow for higher frequencies.

Transport and foreign investment: There seems to exist a negative relation between the costs of transport and the level of foreign investment in Caribbean countries.

Transport and employment: A more competitive Caribbean shipping industry (shipping companies, seafarers, training institution, port labor, agents, shipyards) will help to reduce the costs of transport. On the other hand, there exists the danger that the protection of this shipping industry from foreign competition leads to unnecessary inefficiencies.

Shipping in the Caribbean: Shipping services can be divided into four major types: (1) Inter-island transport, (2) short-sea shipping, (3) deep-sea shipping, and (4) shipping of non-Caribbean cargo which is transshipped in the region. Inter-island transport and short-sea shipping are of particular concern to regional integration.

Ports in the Caribbean: Ports – and terminals within a port – can be divided into three major types: (1) specialized ports, which often focus on commodities, (2) public ports, which may be privately owned but can be used by the “public” for the import and export of different types of cargo, and (3) transshipment centers, which mainly serve non-local containerized cargo. Public ports are of particular concern to regional integration.

The marine environment and maritime safety in the Caribbean: International conventions and the desire to protect the Caribbean seas oblige ports and shipping companies to improve the level of training, safety management, and the control of ships in the region’s ports. Although this might initially increase the direct costs of maritime transport, if externalities are taken into account the total costs of port and shipping operations will probably be reduced.

Specifics of transport and islands: A simple regression of the costs of transport on a number of different explanatory variables indicated that being an island (represented by a “dummy” variable) leads to an increase in the costs of transport. This relation also holds if the size of the economy is included in the regression, which implies that this negative impact can not only be explained by dis-economies of scale.

Economies of scale: An increase in the volume of cargo leads to a reduction of unit costs. If monopolies can be avoided, these economies of scale lead to a downward sloping supply curve. Ports in an island state depend entirely on their own national cargo. On average, ships that serve smaller Caribbean countries are not as big as ships that call at the larger ports in Jamaica and Trinidad & Tobago.

Lack of competition: The island situation of most Caribbean countries limits the scope for competition between ports (inter-port competition). Even Guyana, Belize, and Suriname have few land-based connections to their neighbors and their ports do not compete with the ports of neighboring countries. This increases the need to foster competition of service providers within a port (intra-port competition).

A regional perspective: “Government” groupings, such as the Association of Caribbean States (ACS) and the Caribbean Community (CARICOM), as well as the Caribbean Shipping Association (CSA), which mainly represents the private sector, have approved a variety of strategies and declarations. Very generally speaking, these and other Caribbean regional organizations are very important in that especially in the maritime field only a regional approach can adequately deal with the potentially conflicting goals of (1) assisting the national Caribbean shipping industries, (2) improving maritime safety and the protection of the marine environment, and (3) promoting trade by attracting the most efficient and inexpensive shipping and port services.

B. AREAS OF POTENTIAL IMPROVEMENTS

Collection and interpretation of data: Data on trade flows, modes of transport and port cargo movements is often not available in an electronic format and sometimes not available at all. This lack of accessibility makes it difficult to analyze and discuss policies related to trade and transport.

Strengthening of the Caribbean shipping industry: Ships that are manned or owned by Caribbeans or fly Caribbean flags have a larger market share in their home region than elsewhere. Improving the efficiency of the Caribbean shipping industry through technical cooperation should thus also lead to cheaper international transport.

Compliance with international conventions: Although the protection of the marine environment and improved maritime safety implies additional costs, compliance with related international conventions needs to be improved. This would reduce the external costs of shipping. Due to ever stricter international controls, it is also a necessary condition for the long term survival of Caribbean shipping companies and training institutions.

Additional shipping services: Under the assumption that "non-existent" transport services limit the trade between CARICOM and other countries in the Caribbean, several studies of regional organizations call for the establishment of a "Non Vessel Operating Common Carrier" through a partnership between the public and the private sector. Given disappointing past experiences, any new effort towards government involvement in the provision of shipping services must be preceded by an analysis of why the private sector does not already provide such a service. The costs of such an entity must be made clear to governments, who need to make a commitment to support even a loss making company.

Increase of shipping capacity utilization: There exists a potential to rationalize the use of existing shipping capacity. Cooperation among carriers, systems to facilitate information exchange, or collaboration between agents, carriers and shippers could lead to a reduction of unused space on ships, which in turn should lead to reduction of freight rates.

Improvements of port infrastructure: There does not seem to exist a general lack of capacity in Caribbean ports. However, several ports – namely in Dominica, Guyana, St. Lucia, Suriname, and Trinidad & Tobago (Port of Spain) – are in need of investments in their physical infrastructure so as to cope efficiently with present and future cargo volumes.

Rationalization of institutional settings: Institutional arrangements concerning port authorities, customs and other public bodies, and their relation to private and public port operators, are often complicated, not transparent, and lead to unnecessary bureaucratic hurdles. Specific structures are usually explained with "historical" reasons.

Promotion of competition within and among ports: Although the specific situation of a small island often makes it difficult to create competition among ports, it is usually possible to promote competition between providers of port services within a port. This happened recently in Guyana, where port handling charges went down by 25-30%.

Promotion of port labor reform: Labor relations are generally considered to be good. Nevertheless, there exists a significant potential to modernize payment and reward systems, train and redeploy labor, and reduce unnecessary bureaucratic requirements.

Improvements of port security: Several Caribbean ports still have problems related to drug trafficking and pilferage. This has driven away clients and adds to the freight rates because of increased insurance costs and the need to contract security wards.

Rationalize Customs: Customs procedures and documentation can be a burdensome obstacle to trade and transport. Although electronically transmitted documents (faxes, electronic mail) are accepted as viable substitutes for original documents in other regions, this has not become practice in the Caribbean.

Strengthen regional institutions: Especially in the context of maritime transport, there exists a potentially stronger roll for regional institutions such as CARICOM or the Caribbean Shipping Association (CSA).

C. SUGGESTIONS FOR A WORK PROGRAM

To improve data collection and analysis: Training and computing capacity could be provided to national and regional institutions. It might be useful to collaborate with a GIS project that has been proposed to the OAS by the US Department of Transportation.

To establish additional shipping services: Financial involvement in a to be newly established regional shipping company does not seem justified. Consideration might be given to financial and research support towards cooperation with existing carrier(s).

To increase shipping capacity utilization: Although any new system should be self financing in the long term, it would require studies and funding of the initial stages.

To expand and improve port infrastructure and superstructure: Specific investment needs have been identified for Barbados, Guyana, Kingston (Jamaica), St. Kitts & Nevis, Suriname, and Port of Spain (Trinidad & Tobago).

To improve the regulatory framework for port operations: Consideration might be given the development of a "model" regulatory framework for port operations on small islands.

To promote competition: Related to the previous point, specific additional research might be needed into ways to increase intra-port competition, especially where inter-port competition is not feasible.

To assist port labor reform: Compensation and retraining could require funding. ECLAC's "Course on Port Modernization" could be imparted in Caribbean countries.

To improve port security: There may exist a role for studies undertaken by institutions that are not politically biased. Specific measures could require funding.

To improve the efficiency of Customs: Apart from training and modern information technologies, personnel needs "education" towards a balanced attitude that highlights the need for trade facilitation with the recollection of fiscal revenue.

To support a regional maritime strategy: Many of the above mentioned items are closely interrelated. Also, they require a regional rather than national approach. The IDB and ECLAC need to cooperate with regional institutions. The final goal should be a Caribbean regional maritime strategy.

D. CONCLUSIONS

1. *Does maritime transport matter?*

Yes, it does. Caribbean countries are more dependent on foreign trade than other countries in the ECLAC region. Being island states, maritime and air transport are the only way to transport their imports and exports; road, rail, and river transport and the use of pipelines is not an option. Regional integration and the globalization of the economy will tend to increase the dependency on foreign trade, and thus on maritime transport.

2. *Is there a potential for improvement?*

Yes, there is. Caribbean Islands pay two to three times more for the transport of their imports than the world average. Although regression analysis suggests that this can partly be explained by dis-economies of scale and the particular situation of being an island, it is also true that sub-optimal practices can be identified in several areas related to ports and shipping.

3. *Which areas can be improved?*

There exists a particular potential of improvements in institutional areas such as collection and interpretation of data, systems to increase shipping capacity utilization, institutional settings of port authorities, promotion of intra-port competition, port labor reform, training, rationalization of Customs, and support to regional institutions.

There is no overall lack of capacity in ports. However, the need for physical investments to modernize port operations has been identified in several countries.

Regional institutions have repeatedly suggested the establishment of a new carrier, which would provide shipping services between CARICOM members and other ACS countries, where such services are considered to be insufficient at present. Before the public sector becomes involved with such a new entity, it might be worthwhile to study the possibilities of cooperation with existing carriers.

4. *What would be the impact of such improvements?*

Improvements would promote external trade. Cost reductions would directly benefit the Caribbean countries, because the price elasticity of demand is higher for their exports than for their imports, and prices for most traded goods are determined externally.

The establishment of new shipping services could directly benefit intra-ACS trade. Improvements in public ports may also particularly benefit intra-ACS trade, because exports of commodities to the USA and Europe are generally handled by specialized ports.

Activities of international organizations such as IDB or ECLAC would have to be coordinated on a regional basis. A positive side effect of this might be the strengthening of regional institutions such as CARICOM or the Caribbean Shipping Association.

INTRODUCTION

Economic development needs trade, and trade needs ports and shipping. It can be argued that world wide cost reductions in maritime transport have done more for the globalization of the world economy than the elimination of quotas, tariff reductions, and regional organizations.

The Caribbean trade environment is characterized by uncertainty: Average GDP per capita in the Caribbean has been declining for the past decade. Caribbean countries have lost some relative trade preferences with the United States when Mexico joined the North American Free Trade Area (NAFTA), where it is feared that Mexico could take over as much as one-third of the Caribbean exports to the United States. In May 1997, the World Trade Organization ruled against the European Union's banana market regime, which has granted preferential treatment to Caribbean bananas. Finally, it is expected that European Union imports of Caribbean rice, spirits, and sugar will be reduced as trade preferences have to be phased out.

Given these difficulties, and in the context of regional economic integration in the Western Hemisphere, the Caribbean governments are looking at different means that could make their countries' goods and services more competitive. It is also their desire to proceed with regional integration in the Caribbean. The Inter-American Development Bank (IDB) and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) want to collaborate with the Caribbean countries in these efforts.

This document seeks to contribute to this collaboration by analyzing the potential of improving maritime transport services, and the potential impact such improvements would have on regional integration and the competitiveness of Caribbean goods and services.

The study's main focus are the fourteen member countries of the Caribbean Community (CARICOM). Apart from the executive summary and the conclusions, the document consists of three main chapters:

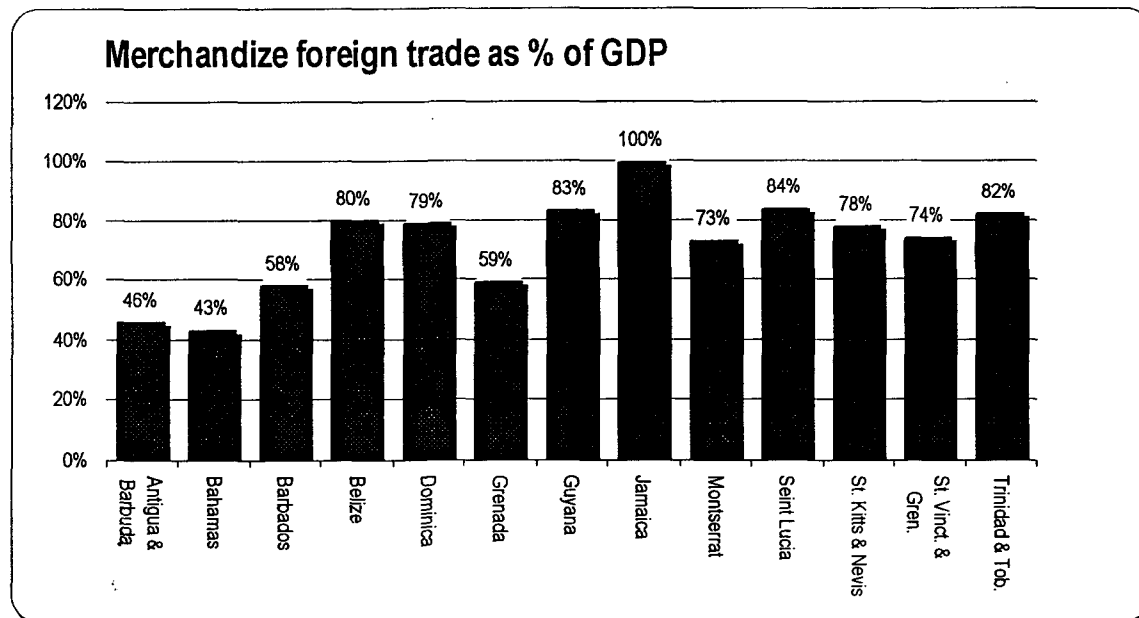
- **Part I** contains a general analysis of the relation between trade and transport, and the potential impact improvements of transport services would have on Caribbean foreign trade.
- **Part II** analyses the potential of improving maritime transport services. It looks at public administrations, ports and shipping services.
- **Part III** provides recommendations for the IDB and ECLAC towards future activities in the area of maritime transport in the Caribbean.

I. GENERAL ANALYSIS: TRADE, TRANSPORT, AND ECONOMIC DEVELOPMENT IN THE CARIBBEAN

A. DEPENDENCY ON TRADE AND TRANSPORT

The economies of the Caribbean Islands depend to a large extent on services such as tourism, telecommunication, information processing, and financial off-shore services. As a percentage of GDP, the export of manufactured goods also contributes significantly to the region's economic well being. Imports are to be seen as a necessary input for the provision of services. Although the production of services do not require the import of material, capital goods need to be imported just like consumption goods. The latter can be seen as an input for the labor that produces the services.

Imports and Exports need to be transported – and in the Caribbean 90% of this is done by ship. Together, imports and exports amount to 78% of the region's GDP; the data for individual countries is illustrated in the following chart.



• **Figure 1: Trade (imports + exports) as percentage of GDP¹**

The Caribbean countries are more dependent on foreign trade than most other countries in Latin America and the Caribbean. The average figure for foreign trade as a proportion of the GDP in Latin America is 25%.

¹ Own calculations based on data provided by CARICOM. Data is for 1995

Most Caribbean countries have a **trade deficit** as far as the value of merchandise imports and exports is concerned. Volume wise, some countries have a “surplus” because they export relatively low value agricultural raw materials and import high value consumer and investment goods.

The following chart allows the easy identification of a variety of aspects that are relevant when looking at CARICOM's trade:

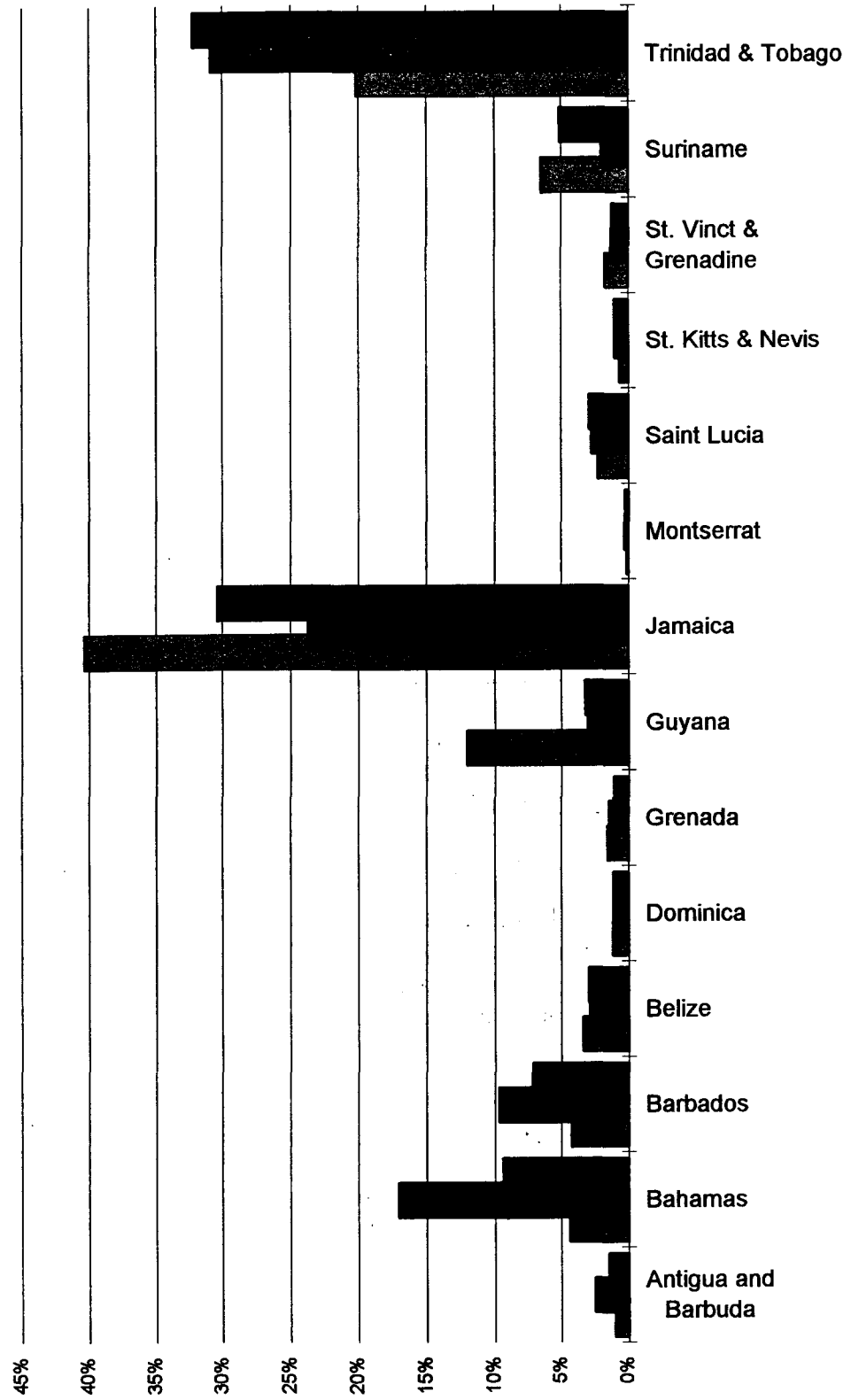
- (1) Comparing each country's share of the region's GDP and Population indicates whether **income per capita** is above or below CARICOM's average.
- (2) Comparing the share of GDP and the share of trade provides information on the relative **openness of the economy**.
- (3) Comparing population and trade indicates **dependency on trade**.
- (4) Comparing different countries shows the **relative weight of each country within CARICOM**.

- **Figure 2: Percent of CARICOM's population, GDP, and trade²**
(see next page)

² Own calculations, based on data provided by CARICOM. Data is for 1995.

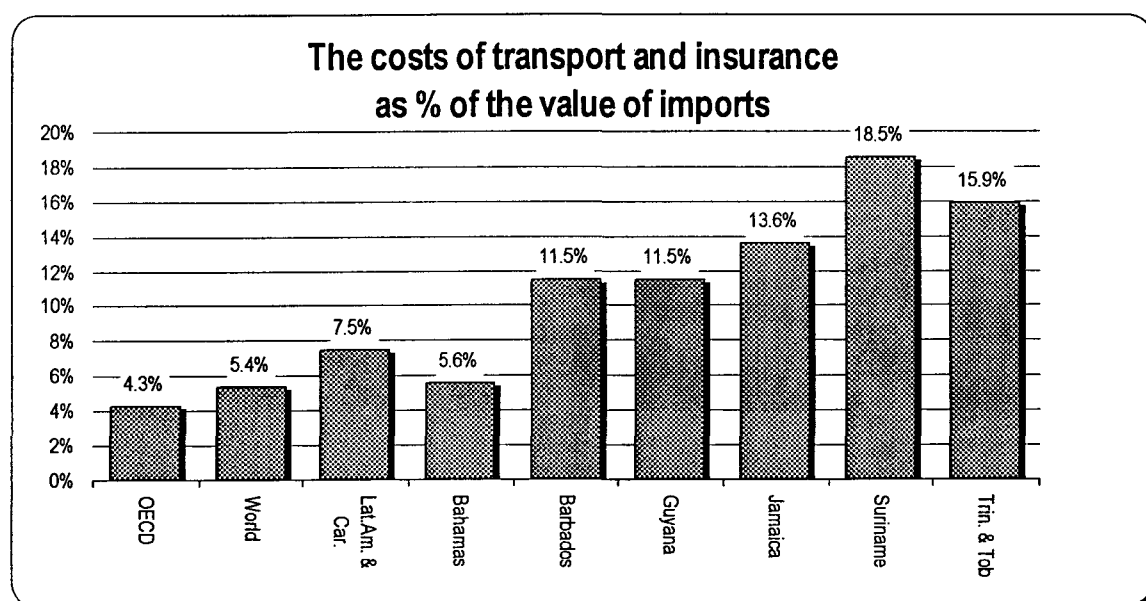
The relative weight of CARICOM's members

■ Population ■ GDP ■ Trade (value)



B. THE COST OF TRANSPORT

An aggregate way of measuring the costs of international transport is to look at the proportion of the value of the imports the country is paying for transport and insurance. This percentage is, roughly, the difference between the f.o.b. and c.i.f. value of the imported goods; it included inland transport. As can be seen from the following chart, Caribbean countries pay far more for the transport of their imports than the world average.



• **Figure 3: The costs of transport³**

Compared to the world average Caribbean countries pay an up to three times higher percentage of the value of their imports on transport and insurance. Data for the smallest islands is not available. It is likely that in their case the transport costs are even higher because of non-existing economies of scale and fewer direct shipping services.

The total costs of transport are influenced by distances and the type of cargo. They also reflect port dues and tariffs, waiting times in ports, economies of scale, sea freight rates, insurance premiums, and in-land transport costs. All in all, they thus are an important indicator of the efficiency of the maritime infrastructure and services that serve a country.

Any national or regional maritime policy should aim to reduce these costs. Sea freight rates between Miami and Caribbean islands are not significantly different from sea freights for the much longer distance between Miami and Buenos Aires. Port handling charges in the Caribbean vary between around US\$ 200 and US\$ 400 per container, which is far more than the US\$ 150, which are for example charged in Argentina.

³ Source: ECLAC (1997) for Caribbean and Latin American figures; UNCTAD (1996b) for world average and OECD.

C. TRADE PATTERNS

1. Imports and exports

The traditional approach to look at trade is in terms of its value, i.e. in US\$, instead of its volume, i.e. in kg or tons. The following chart shows the value of imports and exports of all CARICOM countries.

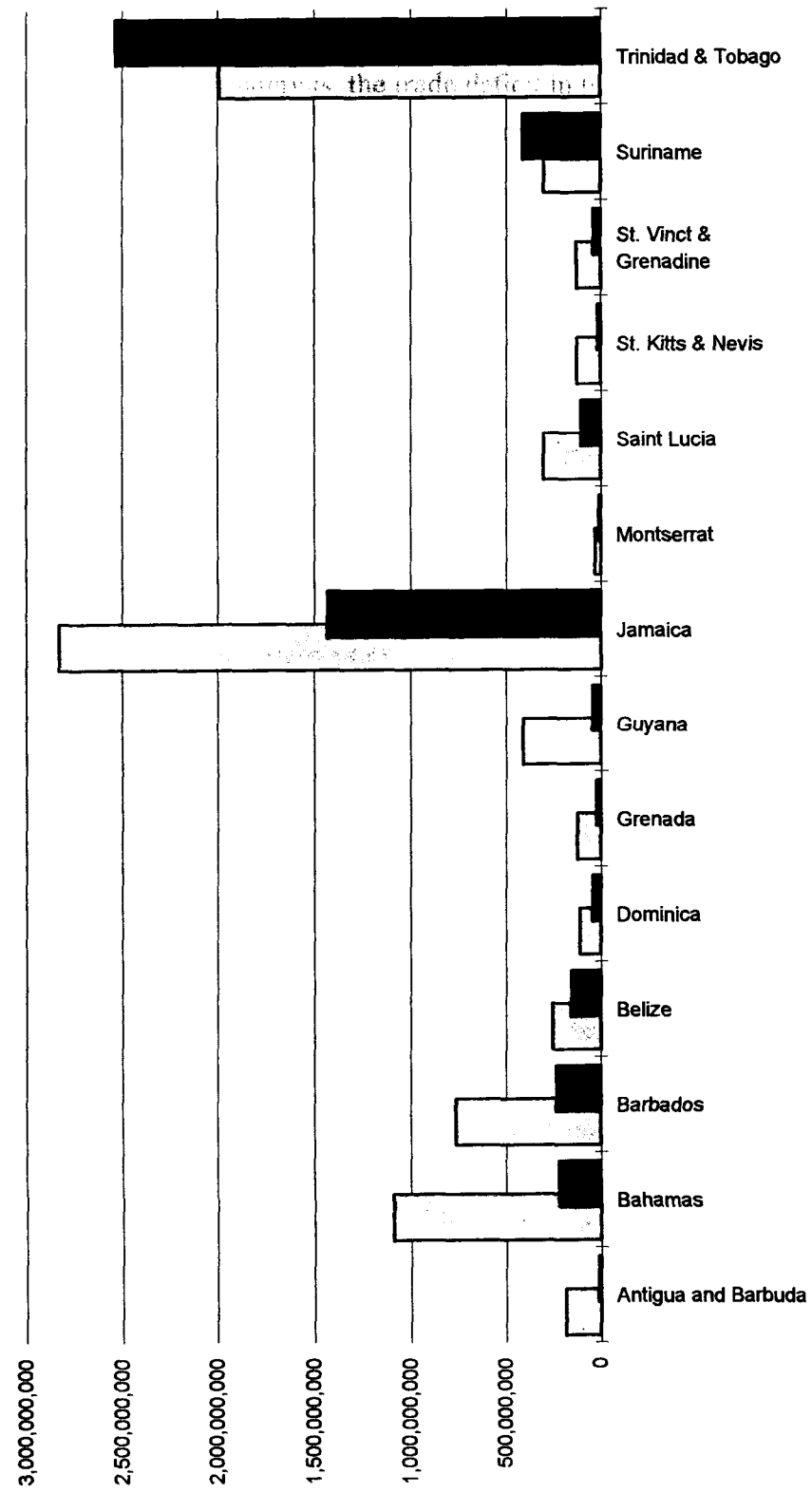
It can be seen that Jamaica and Trinidad are by far CARICOM's strongest traders. Also, the chart illustrates that all countries, except for Suriname and Trinidad and Tobago, have a **trade deficit**. In fact, in most cases the value of imports is more than double the value of exports. In particular, small countries such as Montserrat, Antigua and Barbuda, Grenada, and St. Kitts & Nevis have very little merchandise exports at all.

- **Figure 4: Value of merchandise imports and exports⁴**
(see next page)

⁴ CARICOM; data is for 1995.

Value of Trade, US\$

Imports Exports



If looking at transport, the volume (kg) of trade is more relevant than its value. CARICOM could provide data for seven member countries, including Jamaica, and Trinidad and Tobago, which are the region's largest traders.

Because of the export of raw materials, the trade deficit in terms of volume is not as marked as it is in US\$ terms. In fact, CARICOM as a whole has a "surplus" due to petroleum exports from Trinidad and Tobago.

The data on the costs of transport described in the previous chapter referred to imports. No equivalent data is available for the costs of the transport of a country's exports. In the case of cargo imbalances – e.g. more imports than exports of a certain type of cargo – these costs are not necessarily the same. In the case of the Caribbean countries it is likely that the export of manufactured containerized cargo is somewhat cheaper than the imports because many importers and shipping companies are left with empty containers on the different islands because of the **trade imbalance**. Just to get these containers back to, say, Miami, carriers are often willing to charge lower freight rates.

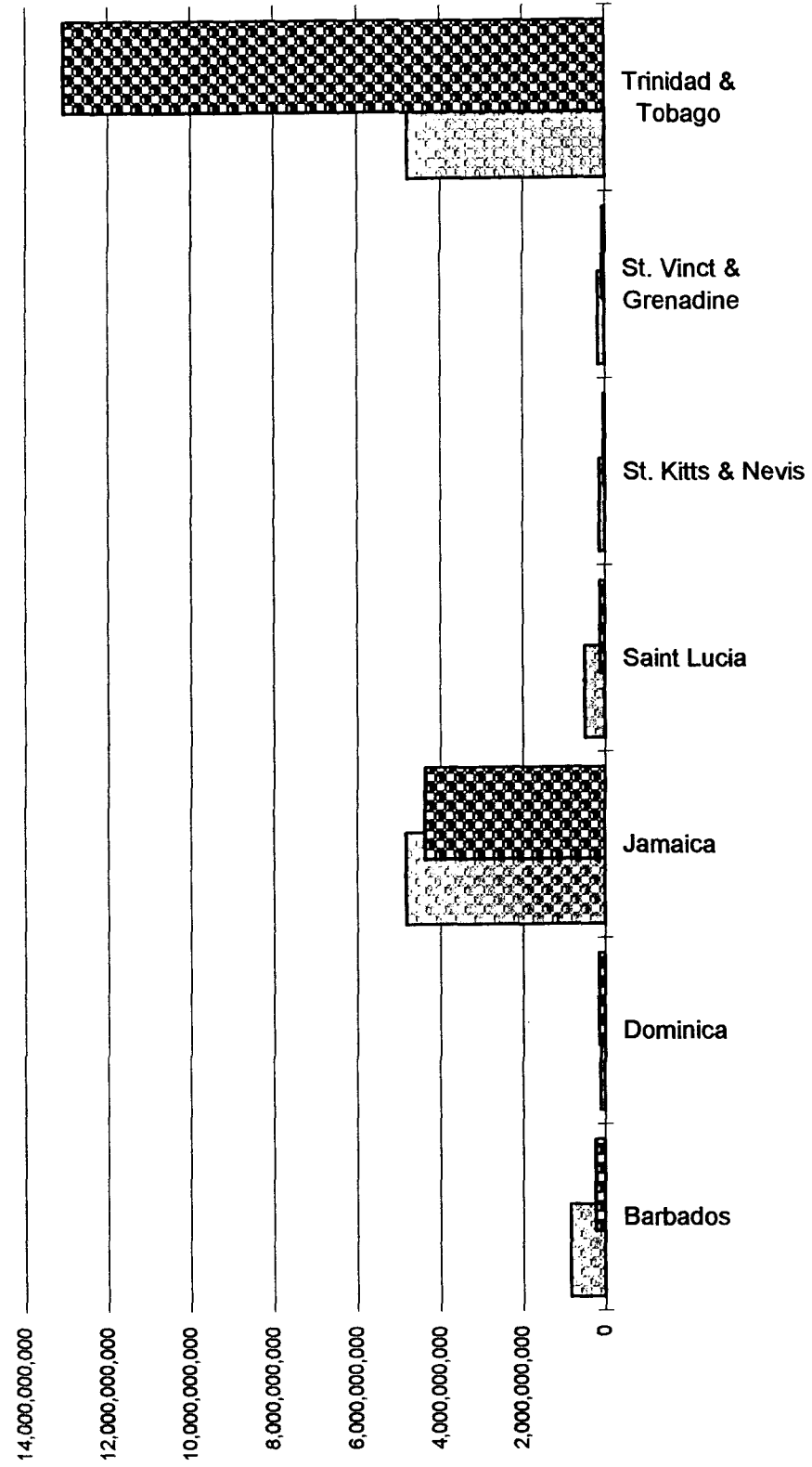
This is general situation in many small islands. "A small Island Developing Country with a narrow production base may import much more than it exports merchandise. This will cause an under-utilization of transport capacities in outbound transport, while relatively high unit costs will prevail in inbound flows" (UNCTAD 1996a).

- **Figure 5: Volume of merchandise imports and exports⁵**
(see next page)

⁵ CARICOM; data is for 1995.

Volume of Trade, kg

Imports Exports



2. *Volumes and values*

As stated above, CARICOM countries as a **group export relatively low value goods. Their imports consist of higher value consumer and investment goods.** To compare the situation in different countries, each country's trade can be computed as a percentage of the region's total.

Thus comparing the CARICOM countries for which data is available, it can be seen that almost half the group's foreign trade (in kg) comes from or is bound for Trinidad & Tobago. In US\$ terms, however, Jamaica and Trinidad & Tobago each account for about one third of the group's foreign trade.

Comparing the trade of the years 1993, 1994, and 1995, it is interesting to note that the **volume fluctuates more than the value**. Given that the value reflects changes in prices *and* trade volumes, one should expect ~~volumes~~ ^{values} to fluctuate more. Perhaps it is thus mainly a coincidence that the variance of trade volumes is twice the variance of the value of trade.⁶

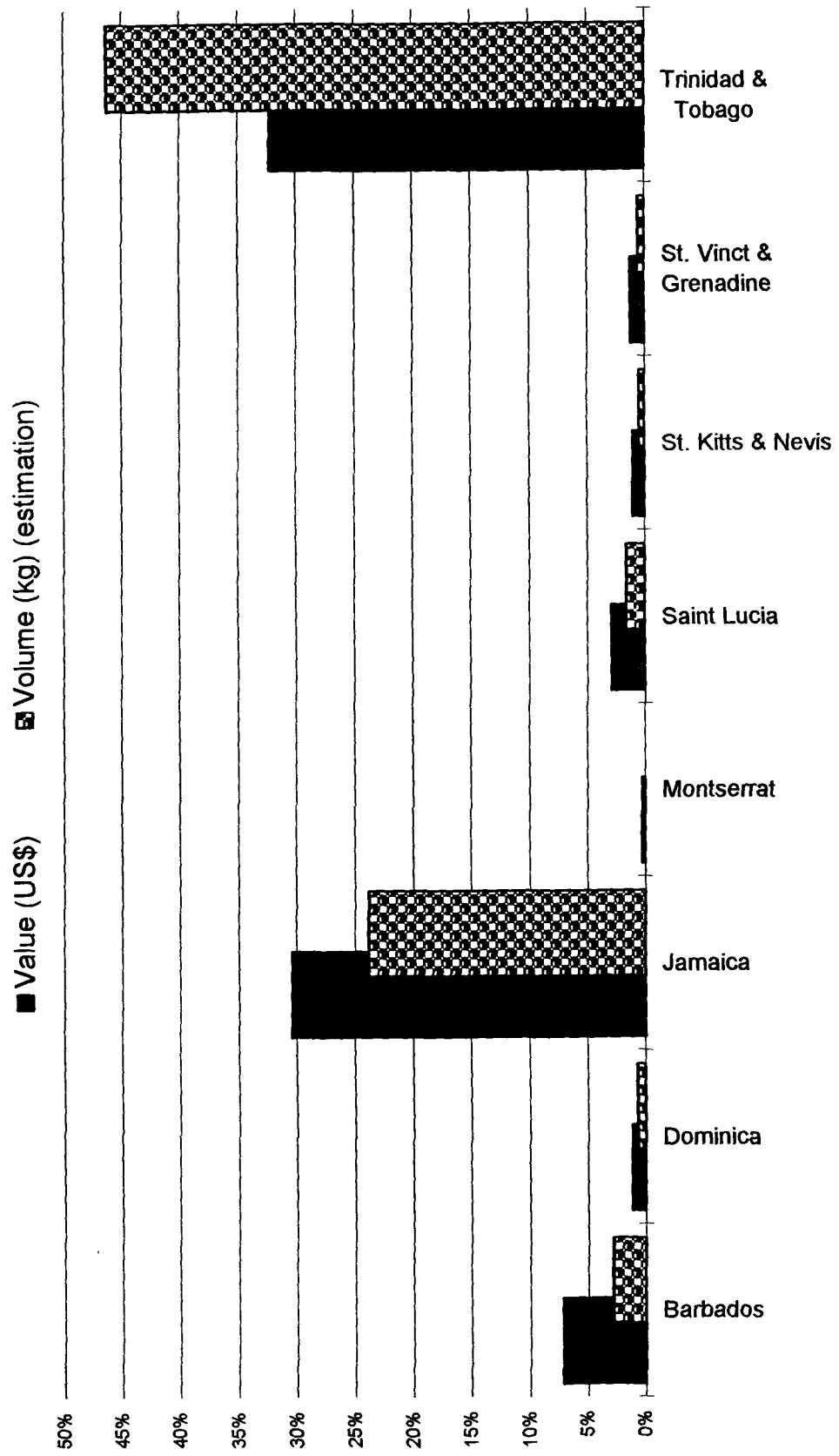
The annex includes trade profiles of seven CARICOM members.

- **Figure 6: Volume and value of CARICOM's foreign trade⁷**
(see next page)

⁶ The average of the squared *percentage* change (1993/94 and 1994/95) of the trade of seven CARICOM members is 614 in the case of the volume and 320 in the case of the value.

⁷ CARICOM; data is for 1995.

The relative weight of CARICOM's members' foreign trade



3. *Intra-CARICOM and inter-regional trade*

Representatives of Caribbean governments often highlight the dependence of their countries on the export of few raw materials (such as bananas, sugar or rice) to European and North American markets. Although this is certainly true if one looks at total CARICOM trade, **for several of the smaller countries trade within CARICOM itself accounts for up to 60% of their exports.**

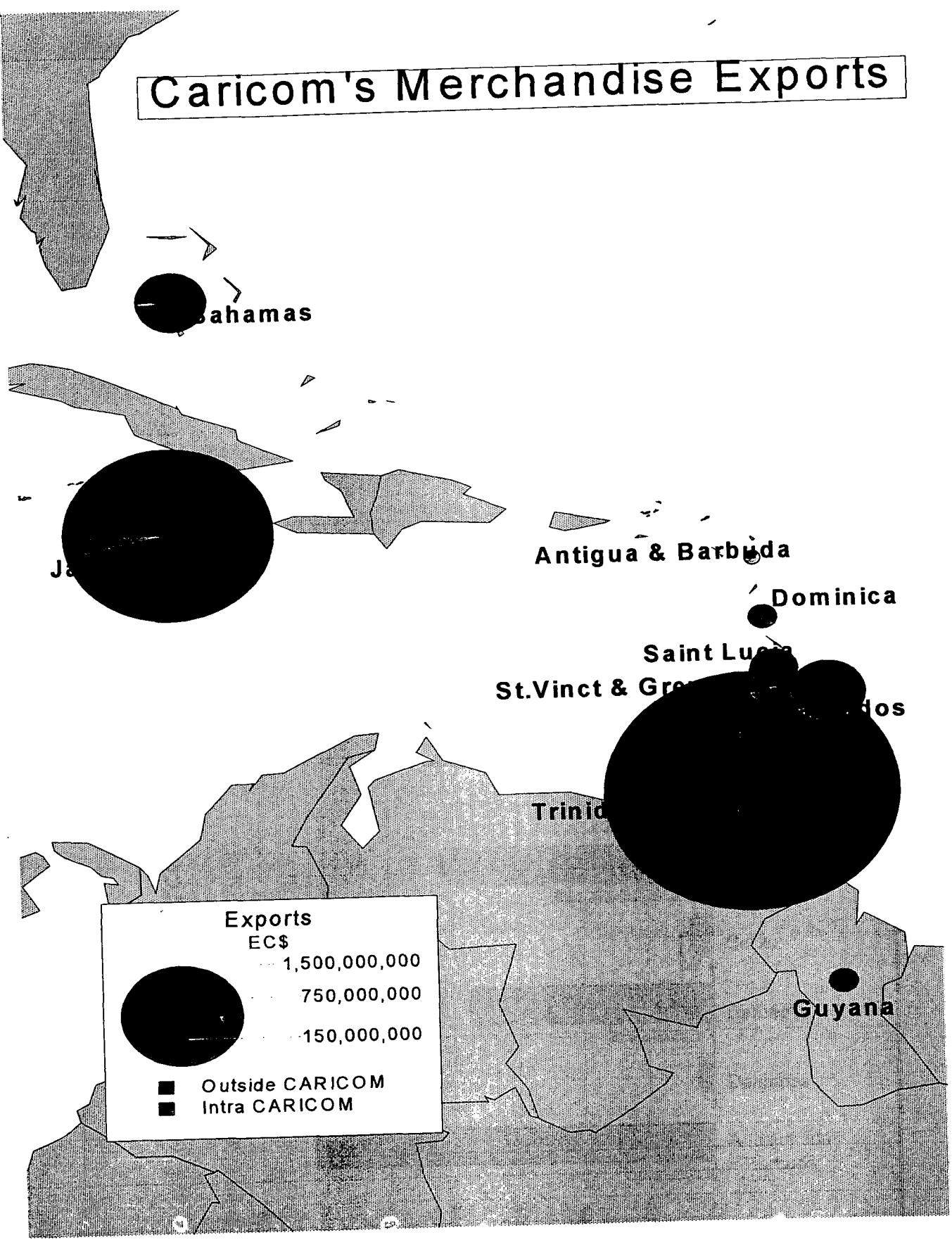
Looking at the following two illustrations it can be seen that the Bahamas, Belize, and Jamaica depend far less on intra-CARICOM trade than smaller Eastern Caribbean countries such as St. Vincent & Grenadine and Antigua & Barbuda, who sell 60% of their exports to other CARICOM members. Especially the map on the next page clearly suggests that distance is one of the determining factors for intra-regional trade.

CARICOM as a whole imports 9% of its goods from CARICOM members. 16% of CARICOM exports remain within the group. Except for some statistical inaccuracies, in absolute terms the value of intra-CARICOM imports roughly equals the value of intra-CARICOM exports. However, as the total value of all imports is almost double the total value of all exports, intra-CARICOM trade is relatively more important for the group's exports than for the group's imports.

- **Figure 7: regional map, merchandise exports⁸**
(see next page)
- **Figure 8: Intra-CARICOM trade as percent of total trade**
(see second next page)

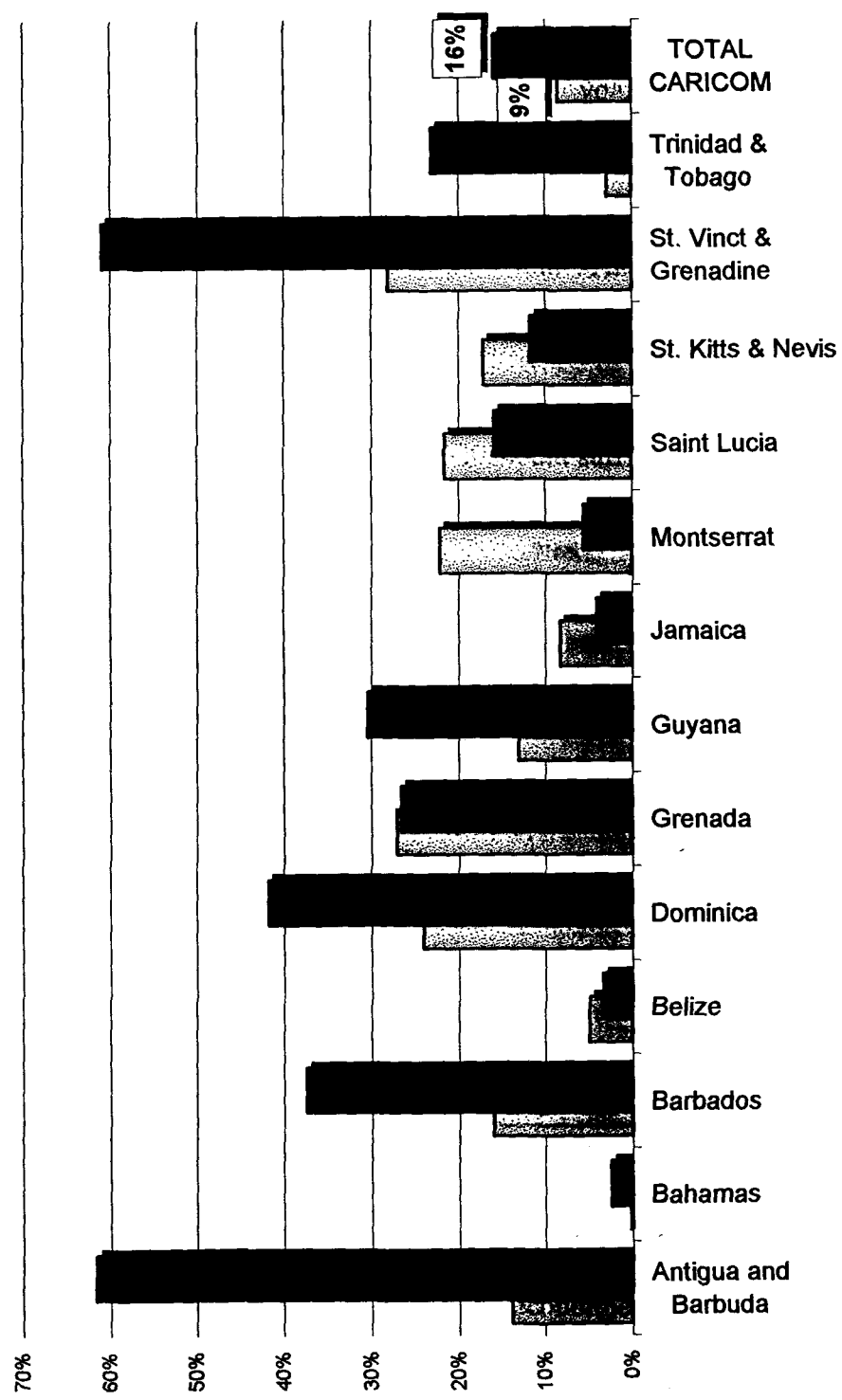
⁸ Own calculations, based on data provided by CARICOM; data is for 1995.

Caricom's Merchandise Exports



Intra-CARICOM trade as percent of total trade for each country

▨ Imports ■ Exports



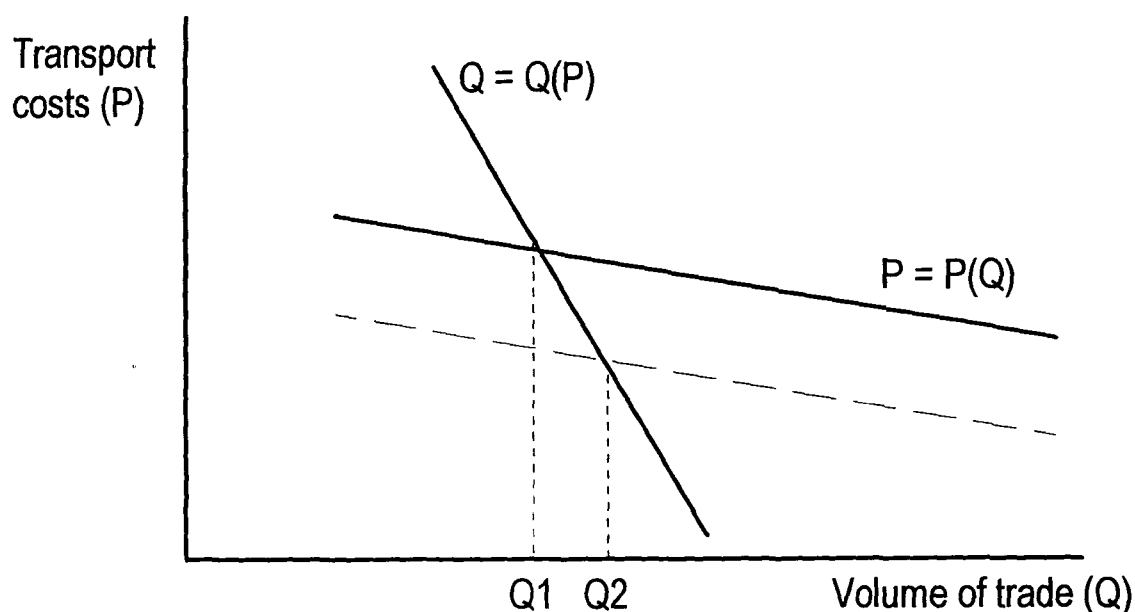
D. RELATIONS BETWEEN TRADE, TRANSPORT AND THE ECONOMY

1. Trade and its transport: the chicken & egg question

Referring to the small island Caribbean states, it is often argued they have comparatively little merchandise foreign trade because of a lack of regular and efficient maritime transport services.

CARICOM (1995) writes: "Producers explain the small volume of trade as largely the result of the absence of regular, direct and competitively priced transportation services together with communication and bureaucratic difficulties and lack of information on trade and transport possibilities." ECLAC (1991b) similarly states that "More usually, it is trade policies, inadequate transportation and trade facilitation arrangements, which hamper intra-CDCC trade and trade with the rest of the world". Although it would not be correct to say that there is "no" transport available, it is certainly true that cheaper transport would reduce the costs of Caribbean imports and exports and thus promote trade.

There exists another causality between trade and its transport: due to economies of scale a higher the volume of cargo also implies cheaper maritime transport. This is to be looked at in a little more detail further down; for now it should suffice to **describe the two relations between trade and transport in a graph** with downward sloping supply and demand curves:



- **Figure 9: Transport and trade**

Lower transport costs lead to higher volumes of trade, which is represented by the downward sloping line Q ("Demand for transport"). The economies of scale which lead to decreasing unit costs of transport are represented by the downward sloping line P ("Supply"). If measures could be taken to lower the line P – represented by the dashed line in the graph – this would increase the volume of trade from Q1 to Q2.

Separating imports and exports, it can be assumed that the **price elasticity** of demand for imports is lower than the elasticity for exports. Commodity prices are practically fixed and any saving in transport costs should directly benefit the Caribbean exporter. Imports, however, consist of consumer goods and factor inputs for local production of goods and services. Here, too, a lowering of transport costs should mainly benefit the Caribbean importer.

If the exact slope of the two lines in the above graph could be estimated – in particular, the elasticity of foreign trade (separately for imports and exports) towards changes in the cost of transport – this would help governments and international institutions such as CARICOM, ECLAC, and the IDB to evaluate the potential impact of proposals which aim at a reduction of the cost of transport.⁹

2. *Transshipment and local trade*

In containerized shipping there exists a general tendency towards increased “transshipment”. This means that cargo is not moved directly from the port of origin to its port of final destination, but instead is transshipped in one or more intermediate ports. Although the transshipment implies additional costs, it permits the use of often larger and specialized vessels for the major part of the journey.

The business of transshipment is particularly interesting for ports, because it adds cargo to the local trades and thus **reduces the port's dependency on its own hinterland**. Many operations in a port require a minimum volume of cargo movements to become economically viable. Especially in the Caribbean, cargo from a port's own hinterland is often not sufficient to justify investments in expensive infrastructure and superstructure. Therefore, many countries are vying for their neighbors' cargo for transshipment.

The Caribbean lies at the crossroads of several major shipping routes. In many cases the major carriers on these routes cooperate in the form of alliances or at least slot sharing agreements. This cooperation, combined with a tendency to use ever larger ships for the major part of the journey, has lead to important transshipment operations in the wider Caribbean. Major ports where such transshipment takes place are in Freeport (Bahamas), Rio Haina (Dominican Republic), Kingston (Jamaica), MIT and Christobal (Panama). Port of Spain (Trinidad) handles transshipped cargo for other Eastern Caribbean islands. For small countries, even a relatively low volume of transshipment can make up a high proportion of total port cargo traffic. In St. Lucia, for example, almost half of the 27,000 TEUs handled in 1995 were transshipment (TEU stands for 20 foot equivalent container unit).

⁹ Such a study could depart from the analysis of the impact of exchange rate fluctuations, which have a similar impact on relative prices. The main difference is that a cheaper national currency has a “one-sided” effect by making exports cheaper and imports more expensive. A change in the costs of transport effects imports and exports equivalently.

The number of TEUs which pass the Caribbean on these routes are given below. Though by far not all of this traffic is transshipped in the region, the data illustrates the direction and volume of sea trade that passes Caribbean waters. (Forecasts for 1997 and forecasted average growth rate until 1998. Source: R. Lawler based on data from DRI/McGraw-Hill):

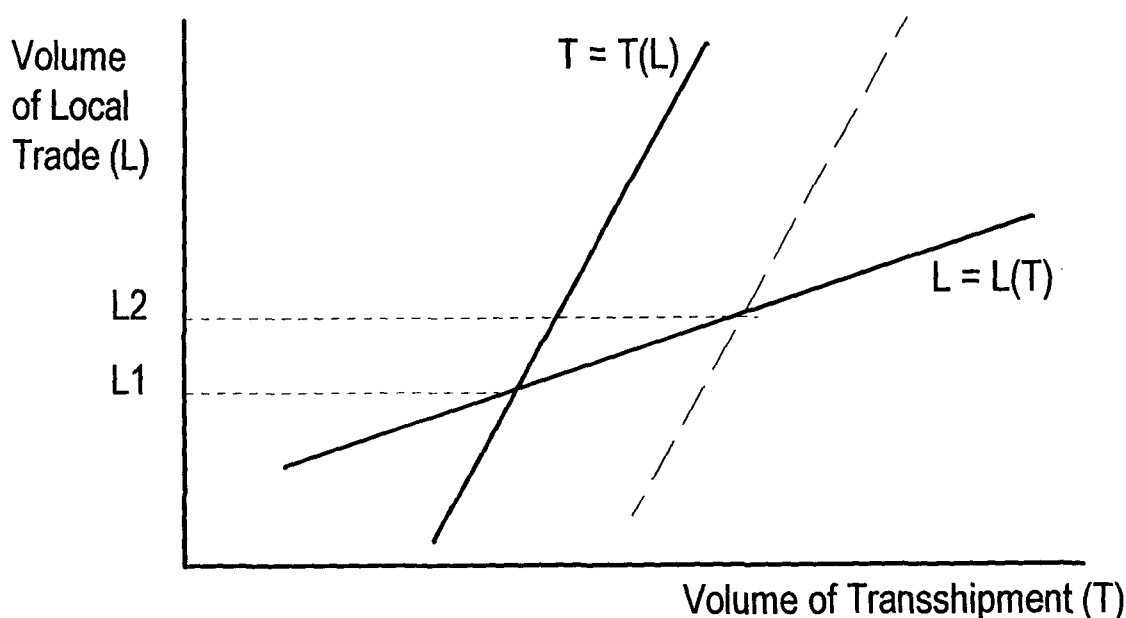
- West Coast South America – USA and Canada: 824,000 TEUs, growth rate 5.1%
- West Coast South America – Europe: 283,000 TEUs, growth rate 4.3%
- East Coast South America – USA and Canada: 982,000 TEUs, growth rate 5.3%
- East Coast South America – Europe: 619,000 TEUs, growth rate 3.3%
- East Coast South America – Asia Pacific Rim: 663,000 TEUs, growth rate 6.7%
- East Coast USA and Canada – Asia Pacific Rim: 5,115,000 TEUs, growth rate 4.6%

Recalculated, these figures translate into ships heading for

- **USA, Canada:** 3,413,000 TEUs
- **Asia Pacific Rim:** 2,641,000 TEUs
- **South America:** 1,979⁰⁰⁰ TEUs
- **Europe:** 551,000 TEUs. (*plus cargo via ECNA*)

The decision to transship at a given port depends on a variety of factors. Apart from the location at a major crossroads it is also advantageous if the port already has its "own" cargo. Everything else being equal, a carrier prefers to transship at a port for which he already has at least some local cargo so as to make use of synergies. Hence, a port with more local cargo is also likely to attract more cargo for transshipment. At the same time, transshipment also benefits the local trades because it increases the number of services that call at the port. In addition, increased total volumes lead to lower unit costs.

In sum, **transshipment and local shipments mutually benefit each other**. This relation can be described in form of the following graph:



• **Figure 10: Transshipment and trade**

Local trade is represented by line L, which slopes upward as the volume of transshipped cargo increases. Transshipped cargo is represented by line T, which slopes upward as the volume of local trade increases. If transshipment increases this can be represented by the new dashed line. The shift of this line implies an increase of local cargo (i.e. foreign trade) from L_1 to L_2 .

If the exact slope of the two lines in the above graph could be estimated – in particular, the elasticity of local foreign trade towards changes in the volume of transshipment – this would help governments and international institutions such as CARICOM, ECLAC, and the IDB to evaluate the potential impact of proposals which aim at the establishment or upgrading of transshipment facilities.

3. **Specialization versus economies of scale**

One of the major economic problems of the Caribbean islands is their dependency on the export of very few commodities. Many studies dealing with the particular situation of small island states highlight the need for a diversification of production. In the annex several charts dealing with the foreign trade of CARICOM members illustrate this dependency. Nogueira (1996), page 20, sees the attraction of foreign investment as a “key element” to achieve economic diversification.

However, as far as the transport of more diversified exports is concerned, it must be highlighted that **“diversification” would lead to increased unit costs of transport**. A specialized banana ship, which takes the cargo directly to Hamburg and makes use of a port which has specialized facilities for refrigerated cargoes, offers lower relative unit costs than a general cargo carrier which takes bananas, garments, furniture, and flowers to a

transshipment center, from where these goods are then taken to their respective final destinations.

CARICOM already has diversified exports (see annex). Although each single country may be rather specialized, as a whole, CARICOM exports a diversified portfolio of bananas and other fruit, petroleum, other commodities, garments, soap, beverages and many other goods. From the perspective of maritime transport it would not make sense if each and every country tried to export such a diversified portfolio on its own.

4. Transport and foreign investment

Though not a specific subject of this study, it seems noteworthy that a recent world bank study¹⁰ also found a **negative relation between transport costs and foreign investment** in Caribbean countries. Other variables with a negative impact were the wage rate, inflation rate, and profit repatriation restrictions. Positive relationships were found for GNP per capita, exchange rate depreciation, the length of income tax holidays, the size of free trade zones, political stability, and manufacturing concentration.

5. Direct contributions of maritime transport to the national economy

Efficient maritime transport promotes foreign trade. This can be called the "indirect" contribution to a country's development. The "direct" contribution of maritime transport to a country's GDP includes the **employment of personnel and the generation of taxable income** by shipping companies, ports, training institutions, shipyards, agents, banks, consultancies etc.

The direct and indirect impacts can be overlapping. For example:

- If a national ship registry is inexpensive and efficient it can be useful for the national shipping industry and generate income for the state at the same time.
- An efficient port can promote national exports and, at the same time, attract transshipment, which creates taxable revenues for the port.
- Well trained seafarers can be a useful resource for a national shipping industry and generate taxable income at the same time.

Sometimes, however, there can also exist a **trade off between inexpensive and efficient maritime transport on the one hand, and the protection of national shipyards, ports, carriers, flags, or seafarers on the other hand**. For example:

- Restrictive port labor regimes may increase employment in a port, yet they certainly do not promote foreign trade.
- Cargo reservation, which requires some or all of a nation's foreign trade being transported on ships that carry the national flag, may help the national shipping industry, but it also avoids competition.

¹⁰ World Bank, Report No. 12617-LAC, May 1994, quoted in Hilaire (1996), page 24

- One carrier described the peculiar case of a **shipment for the IDB** which had to be carried on a ship with an IDB member state flag. Initially it was planned to ship the cargo with a vessel registered in Liberia; this had to be changed to another vessel registered in Panama – which directly led to a delay.

Multinational, regional, and national institutions which deal with maritime transport in the Caribbean have to recognize these tradeoffs. Whereas in the past concepts such as “import substitution” led to a strong focus on the creation of employment within the maritime sector itself, nowadays the main attention has shifted to the need for efficient and inexpensive shipping services so as to promote a country’s participation in the global economy. In this context, it should matter increasingly less whether a service is provided by a national or foreign shipping company, agent, bank, seafarer, or even port operator.

E. SHIPPING AND PORTS IN THE CARIBBEAN

1. Shipping services

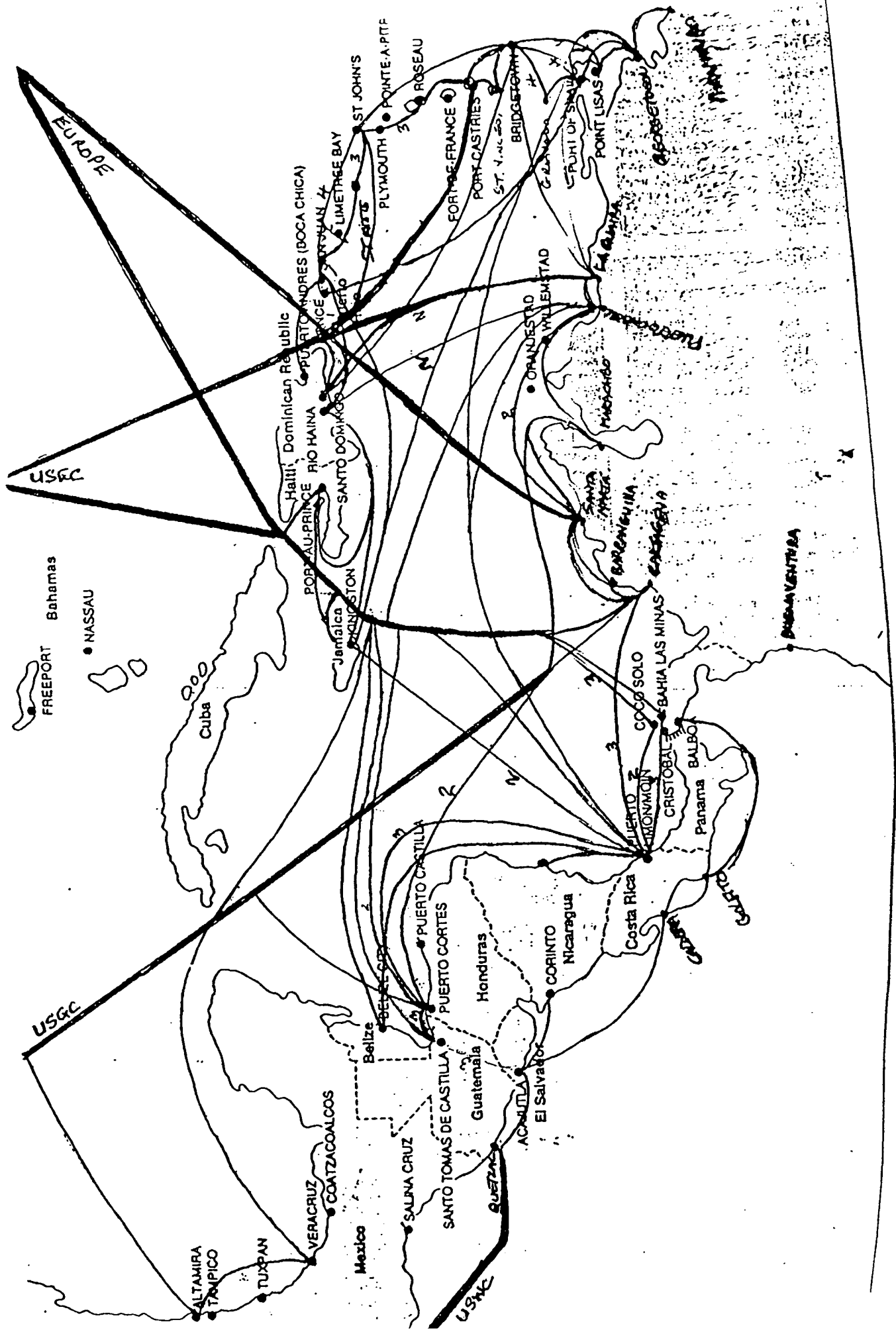
Shipping services in the Caribbean can be divided into four main groups:

- **Inter-island transport:** This is often undertaken by small “tramp” vessels, i.e. ships that do not provide a “liner service” but instead call irregularly in different ports upon demand. There also exist private liner operators such as CAGEMA (Caribbean General Maritime) based in the Eastern Caribbean, and Tropical Shipping, based in Florida.
- **Short-sea shipping:** Transport between the Caribbean islands and regional transshipment centers or ports in the southern USA. Many of lines such as Tecmarine, Seaboard, Crowley, or Tropical are based in Miami, Jacksonville and other US-American ports. To some extent these lines also provide inter-island transport because they call at several ports during one round trip.
- **Deep-sea shipping:** Exports of bananas or sugar to Europe and other direct links between Caribbean islands and destinations in other regions are transported by larger vessels than the ones that are used for inter-island and short-sea transport.
- **Transshipment of non-Caribbean cargo:** Several ports of the region are used by international shipping lines to concentrate cargo from different origins and then load the cargo on to other vessels which take it to the final destination in, say, Asia, North- or South America, or Europe.

The following figure illustrates liner services calling at Caribbean ports.

- **Figure 11: Weekly direct services in the Wider Caribbean¹¹**
(See next page)

¹¹ Map taken from CARICOM (1995).



2. Ports

Ports (or sometimes terminals within a port) can be divided into three main groups:

- **Specialized ports:** These are often private and focus on just one type of cargo, such as oil, bananas, or sugar.
- **Public ports:** In this context “public” does not necessarily refer to ownership but rather to the fact that anybody can import or export his goods through such a port. Public ports usually focus on general and containerized cargo.
- **Transshipment centers:** These specialized ports or terminals handle mainly containers which do not enter or originate from the country itself.

Efforts and studies which look at potential Caribbean trade and maritime transport mainly refer to public ports, as well as inter-island and short-sea shipping services.

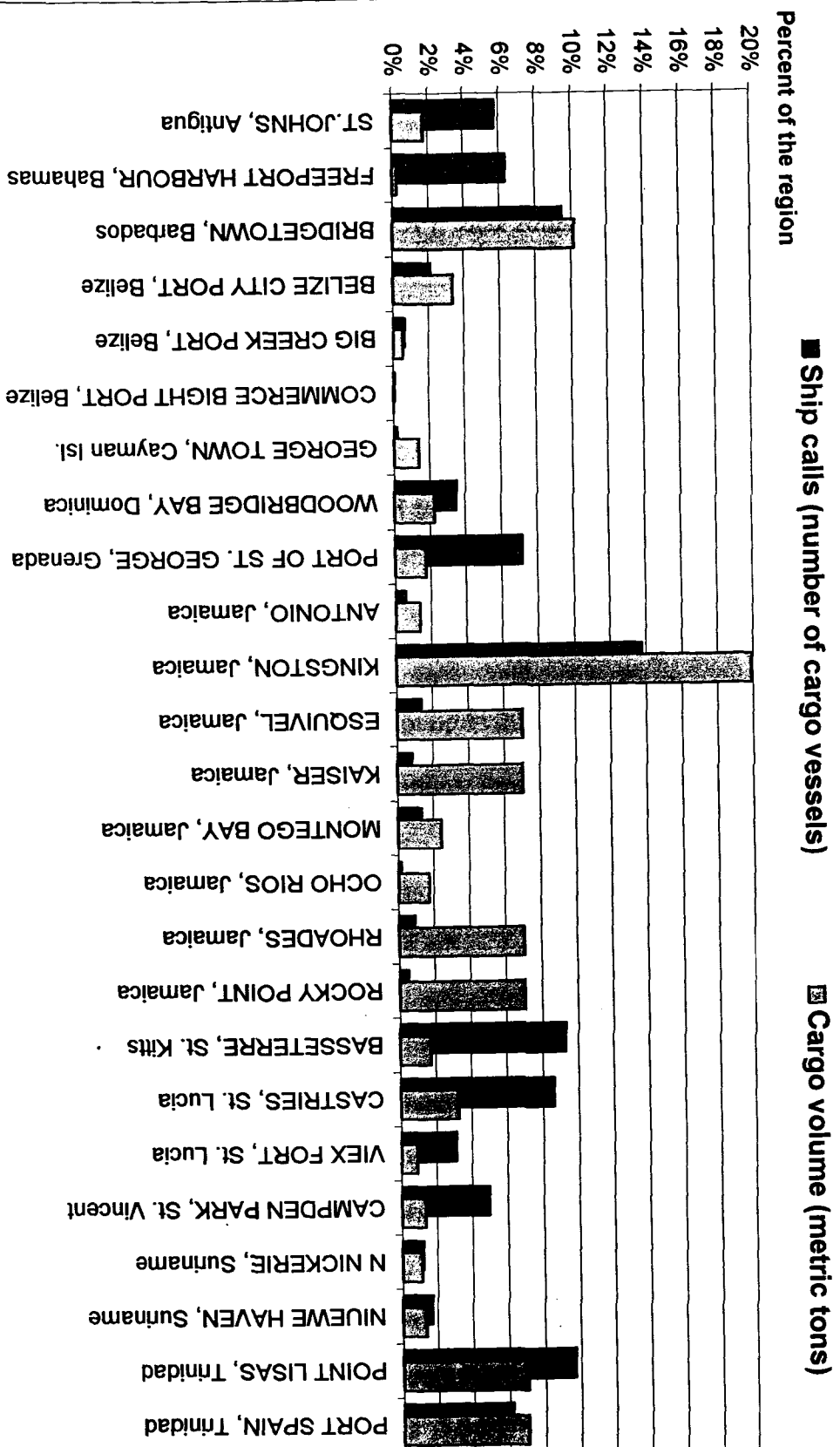
The following chart provides an overview of total port cargo traffic of Caribbean ports. It illustrates, that smaller countries, such as Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, and St. Lucia attract a relative large proportion of ship calls compared to their share of cargo volume. This indicates that – as expected – in smaller countries each ship carries comparatively less cargo than in larger countries.

- **Figure 12: Caribbean port cargo traffic**

(See next page)

Note: the data is derived from a variety of sources, mainly: CSA (1994), CSA (1995), CSA (1997a, and b), IDB (1996a, b, c, d, e, f, g, h, i, j, and k). Definitions of volume, the inclusion of transshipment and the years are not always comparable, and the graph is only meant as a general overview and approximation to identify the relative importance of Caribbean ports concerning the volume of cargo and the number of ship calls. In particular the data on volume in Freeport (Bahamas) and Point Lisas (Trinidad) is probably too low because it referred to earlier years.

Port Cargo Traffic in the Caribbean



F. THE PROBLEM OF BEING AN ISLAND

1. *The costs of transport*

For the purpose of this study, a simple regression was undertaken with the above described "[cost of transport] as percentage of the value of imports" as the dependent variable. [GDP per capita], [total GDP], total volume of [trade] and the [distance] in km to major OECD markets were taken as explanatory variables. Further, a dummy variable for [island] was included.

[trade] and [total GDP] had a negative sign, which can be explained by economies of scale (see below the next chapter). [Distance] had the expected positive sign, and [GDP per capita] a negative sign, which might indicate that less developed countries also have less efficient ports.

The results of this regression strongly suggest that being in island has a positive (i.e. increasing) impact on the cost of transport. This implies that it is not only the smallness of the island economies that increases the costs of transport but that there seems to exist a particular disadvantage of being an island.

2. *Economies of scale*

Very generally speaking, a 50% larger vessel – if fully utilized – can lead to a reduction of the unit cost per ton mile of up to 20%. In a port, a container handling "gantry" crane costs about US\$ 8 million, which is just one example of high fixed costs related to port operations. In public administrations, too, smallness can lead to reduced efficiency, because staff cannot specialize when few individuals have to undertake a large variety of different tasks.

By nature, ships are very mobile, and market entries and exits are easy. Economies of scale thus lead to a **downward sloping supply curve**. If monopoly rents in ports can be avoided, there too larger volumes lead to lower unit costs.

From the chart on port cargo traffic in the previous chapter it can be seen that ports in the smaller islands are served by smaller vessels than the larger ports in, for example, Jamaica and Trinidad and Tobago. This has a direct impact on unit costs of shipping services to and from these smaller islands.

3. *Lack of competition*

On several Caribbean islands, cargo volumes are insufficient to justify more than one public port. This situation excludes the possibility of competition between ports. Independently of port ownership and operation, experience has shown that competition between ports is an important factor which contributes to efficiency improvements, and, apart from "smallness", the lack of competition between ports is one major obstacle for the increase of efficiency of port operations in the Caribbean.

An island port has 100% monopoly power over cargo movements from and for its hinterland. For this reason, Caribbean governments are even more hesitant to privatize their ports than other governments in the ECLAC region. In order to avoid private monopolies, governments usually retain at least the ownership of the port. In most cases they are also involved in port operations.

Independently of competition *between* ports, it is usually **conceivable to achieve competition *within* a port**. Even in smaller ports it is possible to have more than one stevedoring company, supplier of equipment, maintenance service, security company, or inland transport provider compete with each other.

G. REGIONAL INSTITUTIONS AND MARITIME POLICIES

1. Association of Caribbean States (ACS)

The ACS held its inaugural Summit of the Heads of State and Government in Port of Spain (Trinidad & Tobago) in August 1995. Based on recommendations from CARICOM, it published a "Declaration of Principles and Plan of Action on Tourism, Trade and Transportation".

Concerning shipping services, the Plan of Action within this Declaration of Principles includes the following points (summarized, based on ACS, 1995, page 20 ff.):

- (1) Examine the feasibility of establishing of a joint Government/ Private Sector non vessel operating common carrier ("NVOCC").
- (2) Discuss with shipping lines the necessary inducements which would be required to provide services from hub ports to secondary ports.
- (3) Promote the development of intermodal transportation.
- (4) Encourage shipping lines to work together to expand on-carriage arrangements among themselves.
- (5) Examine novel approaches, including the cooperation with navy ships.

Concerning port services, the Plan of Action includes:

- (6) Assist Port Authorities and Worker Organizations to address the issue of port costs and efficiency.
- (7) Examine the future role of private and public sector involvement in the provision of port services.
- (8) Assist Port Authorities to cooperate among themselves and with other regional bodies. Urge Port Authorities to simplify and streamline the necessary documentation, improve port efficiency, and establish Electronic Data Inter-Change information systems.

Concerning shipping services, the ACS thus mainly focuses on cooperation between governments and the private sector. Concerning port services, the ACS focuses more on their efficiency and does not suggest any additional investments.

With regard to the implementation of this Plan of Action, the ACS planned to "Establish, within the framework of the ACS arrangements, a Technical Group on Transportation. This Group will develop specific programmes to promote the maritime, air and intermodal transportation objectives outlined in this plan of action". The first Meeting of this Technical Group took place in May 1997 in Curacao.

2. Caribbean Community (CARICOM)

The Secretariat of CARICOM aims to coordinate the maritime policies of its Member States. Also, its staff supports other regional forums such as the ACS or the Caribbean Shipping Association by providing data, undertaking studies, and participating in regional meetings.

CARICOM made the following recommendations to the above mentioned ACS Technical Group on transportation, which met in May 1997 (quoted from CARICOM 1997, page 13 ff.):

- (1) Appoint a sub-committee to consider issues relating to the development of maritime transportation policy guidelines aimed at upgrading the **regulatory framework** within which an integrated network of ACS maritime transportation service could be provided;
- (2) mandate a Committee to design arrangements to facilitate the expansion of on-carriage **agreements among ACS shipping lines**, identification of the nature of inducements for these lines to provide services to both hub and secondary ports, including through the establishment of NVOCCs (Non-Vessel Owning common Carrier);
- (3) mandate the evaluation of efficiency and cost profiles of ACS **ports** and the design of a programme of cooperation aimed at ensuring effective operational and information systems and cost regimes, and the design of a programme to foster investment in ports by both the public and private sector;
- (4) mandate the design of guidelines to conserve the maritime **environment** of ACS States, including the protection of the Caribbean sea.

Other activities of CARICOM relate to **Conventions of the International Maritime Organization (IMO)** concerning maritime safety and marine environment protection.

3. G3 (Colombia, Mexico, Venezuela) and CARICOM

In 1993, in order to promote trade between CARICOM and the G3, a consultancy firm was commissioned by the Caribbean Development Bank to execute a "detailed study on the possibilities of establishing air and maritime transportation links between these countries" (CARICOM, 1997). The findings of this study included the following recommendations (quoted from CARICOM, 1997, last page):

- (1) the establishment of a Caribbean Non-Vessel Operating Common Carrier (NVOCC) to operate on medium distance routes;
- (2) establishment of a ferry service for the carriage of intra-CARICOM cargoes and passenger;
- (3) development of an integrated land/sea transport network including a door-to-door service;
- (4) establishment of a Port Fund to finance indirectly high port charges at ports in the study area

These findings were later discussed by a meeting of regional officials in 1994, which concluded that "several trenchant criticisms of the data and the model underpinning the recommendations (...) significantly undermined their validity". The points (2), (3), and (4) were not further pursued. Point (1) on a **Caribbean Non-Vessel Operating Common Carrier has been included in the ACS strategy** mentioned above in the chapter on the ACS. Generally speaking, the work of the G3 concerning maritime transport seems to have been overtaken by the ACS.

4. Caribbean Shipping Association (CSA)

The Caribbean Shipping Association is located in Kingston (Jamaica). Its members include 12 national shipping associations and about 100 individual members, including port authorities, port operators, carriers, and companies that provide other maritime services such as agents and consultants. It is the (mainly) private sector forum for discussion and regional cooperation in the maritime field in the Caribbean.

In October 1994 the CSA General Council Meeting adopted a "Framework for a Regional Maritime Policy". It includes the following strategies, quoted from CSA (1994):

- (1) Rationalization of existing Port infrastructure
- (2) Diversification and deregulation of certain Port activities
- (3) Harmonization of Port State Control.
- (4) Development of a regional vessel registration system
- (5) Development of surveillance and enforcement measures to protect the marine environment from pollution from ships.
- (6) Strengthening of existing maritime training institutions.
- (7) Recognition and promotion of existing institutions.
- (8) Assessment of manpower requirement and placement.
- (9) Utilization of Regional expertise.
- (10) Expeditious ratification of Maritime Conventions and development of national guidelines and regulations to enforce these conventions.

Two of the ten points are related to **port operations**; three points relate to maritime **safety and environment** protection; one point refers to **flag registration**; and four points deal with **training** and related matters.

These strategies, as well as other publications of the CSA, seem to pursue two very broad goals:

- First: To improve the efficiency of maritime transport and, thus, assist the regional development. When the CSA was formed, it was "to be of service to the region as a whole" (CSA, 1995, page 7)
- Second: To assist the Caribbean shipping industry itself and lobby on its behalf with governments and other regional organizations.

These two goals are often overlapping. For example, "diversification and deregulation of certain Port activities" helps the private port operators and at the same time it promotes trade. Sometimes, however, these two goals are also potentially conflicting. For example, representing the interests of Caribbean shipping companies, the CSA may not always be too enthusiastic about foreign competition. In that context, the above mentioned strategy (CSA, 1994) states that "Neither can we carry on the reckless internal competition allowing external forces to play us against ourselves".

The CSA publishes a newsletter and a Handbook of Caribbean Ports. Through its meetings and working groups it is an important forum of discussion in the region. Also, it regularly collects valuable information on its member countries in form of detailed questionnaires. These questionnaires contain very useful information. Unfortunately, though, this information is not stored in an electronic format, which makes its analysis rather cumbersome.

II. AREAS OF POTENTIAL IMPROVEMENTS

A. COLLECTION AND INTERPRETATION OF DATA

1. *The need for statistical information*

Growing foreign trade, cheaper information technology, and increased regional co-operation should lead to a general tendency of more collection and electronic storage of data on trade and transport in the Caribbean. However, in many cases data on the value and volume of trade flows, modes of transport, and port cargo traffic, is either not yet available at all or only in a non-electronic format.

Many questions related to trade and transport would be easier to answer if such data were easily available, up to date, for all Caribbean states, and in an homogenous format. Accordingly a recent report for the ACS "intended to highlight the difficulties associated with planning in the transportation sector owing to the paucity of easily accessible transportation data" (CARICOM 1997, Annex IV).

2. *Available data*

CARICOM: Most of the charts presented in this report are based on data supplied by CARICOM. CARICOM receives relevant data directly from the majority of its Member Governments. It has qualified staff to handle and analyze this data, yet it seems to count on insufficient human resources and inadequate hard- and software.

ECLAC: ECLAC Trinidad has recently improved the electronic storage of trade related data. ECLAC also receives its information directly from the Member Countries. There exist plans to link the data base to ECLAC Santiago.

Caribbean Shipping Association: The CSA collects valuable data from its members in form of questionnaires. These include detailed data on port traffic, port productivity and other information. Unfortunately, though, this data is not stored in an electronic format.

Data on foreign trade by origin and destination and by type of product is available for most countries. There does not seem to exist aggregated data on the modes of transport and on freight rates. Data on port cargo traffic is often available, but not in a centralized electronic format. In the case of some countries certain data is not systematically collected – or is has been lost as, for example, in Guyana, where the police seizure of material (in a case of presumed corruption) resulted in the loss of trade statistics for 1992.

A centralized data base with data on trade and its transport would be a necessary first step to compute information on port productivity, trade imbalances by type of cargo, and market shares. A variety of more in depth studies, for example dealing with the relation between transshipment and local cargo, the elasticity of trade towards the costs of transport, and the impact of competition between ports, will probably not be possible without such centralized and homogenous data. CARICOM has in the past highlighted the need for such a system, yet for a lack of funding it has not yet become reality.

B. THE CARIBBEAN SHIPPING INDUSTRY

1. Caribbean shipping interests

As described above, it is not necessary for a country to count on national ship building, flag registration, ship ownership, or maritime personnel. These services can be bought internationally. In fact, it may often be cheaper to rely on foreign shipping companies for the transport of a country's foreign trade rather than insisting on national carriers, seafarers etc.

Caribbean shipping companies have comparative advantages in their home market. Therefore, the proportion of Caribbean flagged, manned, or owned vessels is higher in the Caribbean than in other regions. For this reason **assistance to the Caribbean shipping industry which improves its efficiency would also help the region's trade**. One has to be careful, however, that such assistance does not turn into protectionism from foreign competition. Such protectionism would lead to less efficient shipping services.

CARICOM, the ACS, and the Caribbean Shipping Association attach a high priority to the support of Caribbean shipping companies, flag registries and maritime personnel on board and ashore. Also, their activities include projects focussing on maritime safety and marine environment protection.

2. Maritime training

CARICOM and the CSA try to promote the employment of seafarers of Caribbean nationality. If properly trained, **Caribbean seafarers should have a comparative advantage** over other nationalities when working on ships in the Caribbean because seafarers from countries such as India or the Philippines need to be flown in to work on cargo or cruise ships in the Caribbean.

As for seagoing personnel, the region is expecting an increase in the demand for seafarers. At the same time, however, their schools are threatened by changes in the International Maritime Organization's "STCW" convention (Standards of Training, Certification, and Watchkeeping), which may result in difficulties of international acceptance of certificates obtained in some Caribbean schools.

Major institutions dealing with maritime training (related to ports and shipping) are the Jamaica Maritime Institute (JMI) and UNCTAD backed TRAINMAR. The Caribbean Development bank is at present considering a proposal of a US\$ 300,000.- grant for a "Regional Diploma in Shipping Logistics" (CSA, 1997a) which is imparted by the JMI. TRAINMAR has recently augmented its activities.

3. Compliance with international conventions

In February 1996 the Caribbean countries adopted a "Memorandum of Understanding" on "Port State Control". This means that Caribbean countries commit themselves to increased inspections of ships calling at their ports so as to control their compliance with international conventions related to maritime safety and environment protection.

Another important initiative in the Caribbean is a US\$ 5 million World Bank financed project to protect the Caribbean waters from ship generated waste. This project and the related "MARPOL" convention put pressures on ports and carriers to manage ship generated wastes.

A third challenge for carriers in the Caribbean is the "ISM code" (International Safety Management), which obliges shipping companies to obtain certificates to prove compliance with certain internationally agreed safety management principles by 1998.

Improved maritime safety and environment protection implies additional costs and, thus, the **tendency to increase the costs of international transport**. For example, a common offence which has been detected by Port State Control in the Caribbean has been non-compliance with "load lines", which are supposed to avoid the overloading of a vessel – although "overloading" a vessel would of course reduce unit costs. Nevertheless, the protection of the marine environment in the tourism-dependent Caribbean makes the compliance with such basic conventions a necessity. It would also help "to enhance the image" of Caribbean ports (CARICOM, 1995, page 21).

Often, stringent conventions indirectly favor larger carriers and carriers which also operate in Europe and the USA, where they were obliged to comply with these conventions in the past. Ships who operate in the Caribbean – in particular in the inter-island "tramp" business – are often "owner operator" run, i.e. the owner is also the captain who works on the ship, employing 5 to 10 seafarers. Compliance with new and complicated rules can result difficult for such operators. With this difficulty in mind, CARICOM and others have long stressed the need for more technical assistance which would help Caribbean shipping companies to cope with the challenges posed by IMO's conventions related to maritime safety and environment protection.

C. SHIPPING SERVICES

1. Additional shipping services

As explained in Chapter I, there exists a positive relation between trade and transport. In several studies and policy documents this has lead to the conclusion that it might be justified for governments to arrange for the provision of *additional* shipping services. These are mainly proposed for trade between CARICOM members and other ACS countries.

At the beginning of the 1980's some studies still proposed that CARICOM or governments should "develop Eastern Caribbean small-vessel fleets" (ECLAC, 1983). The same document also suggests to "identify the desirable size of such fleets, appropriate vessel designs and construction technologies", with the purpose to "strengthen Caribbean owned and operated inter-island transport systems to that they can begin to provide adequate and regular services".

More recent proposals are less ambitious in that they only refer to shipping services, with vessels being operated by the private sector – independent of ship ownership by Caribbean or non-Caribbean companies.

CARICOM (1995), page 8, states "ACS suppliers to other ACS countries must compete with established suppliers mainly from developed countries with good maritime transportation links. Trade competitiveness will require the ability of ACS exporters to provide goods to the market place in the quantity demanded, at the time needed, on a consistent basis and at no higher a price than non-ACS suppliers. In the intermediate stage to free trade among ACS States, there is not even the small tariff advantage which obtains in a free trade area. These requirements dictate the need for an efficient transportation system, or set of arrangements which will provide not only the quality service needed, at minimum cost, but services where these currently do not exist." And on page 20 "Governments should discuss with the private sector, in particular freight forwarders, the possibilities of an requirements for establishing NVOCCs. In this regard, the feasibility of the recommendation which was made in the CARICOM / Group-3 transport study for a joint Government / Private Sector NVOCC should be pursued".

The recommendation of a NVOCC – a Non Vessel Operating Common Carrier – is included in several recent documents prepared by and for CARICOM, the ACS, and the G3/ CARICOM Group. It would leave ownership and operation of the actual ship with the private sector. A separate entity with government involvement would charter the ships so that they would serve specific routes which are considered to be insufficiently served by current services. It is also suggested that "governments, possibly through their ports, would need to provide in the initial stages, additional inducements to encourage the creation of the NVOCC."¹²

In the recent past, the Caribbean has had some rather disappointing experience with the provision of shipping services by an entity which was run with close involvement of governments. The company "WISCO" (West Indian Shipping Corporation) finally became insolvent, and there seems to exist general agreement that the concept itself was doomed to fail from the very beginning: On the one hand, the public sector wanted to provide a service which the private sector had considered to be uneconomical. On the other hand, governments were not prepared to cover losses over a too long period. Independent of this context, there also seems to exist the impression that too much government and administrative meddling with the day-to-day management of WISCO made it difficult run the company as efficiently as possible.

Any new effort towards the provision of actual shipping services by regional government supported or even owned entities must be preceded by an analysis of why exactly "the market" does not provide such a service on its own. The costs of such an exercise must then be made clear to governments, who in turn must make a long-lasting commitment to support even a loss making company.

2. Shipping capacity utilization

Shipping companies serving the Caribbean do not seem to cooperate as much as carriers in other regions. Whereas in other trades the shipping companies have formed alliances or at least have some slot sharing arrangements, in the Caribbean a carrier X whose next ship is already full would rather ask a customer to wait several days for the

¹² CARICOM (1995)

next ship rather than "give" the cargo to competitor Y. This competitor Y may have excess capacity available the same day.¹³

More generally speaking, there is a **potential to rationalize the use of existing shipping capacity in the region**. Accordingly CARICOM (1995), page 20, recommends that "the shipping lines work together to expand the range of on-carriage agreements/ arrangements among themselves and to make these more widely known to potential shippers".

Exporters in the Caribbean do not usually contract a freight forwarder but, instead, deal directly with the shipping lines. Although agents and freight forwarders naturally imply additional costs, their involvement should generally lead to a more efficient capacity utilization.

In the Great Lakes in North America there exists a system called "Night Cast", through which ships and potential shippers can access information on available capacity from and bound for ports in that area. Participation in the system is voluntary and involves a small annual fee. Perhaps such a system could serve as a model for the Caribbean as well.

3. Oligopolies

Shipping lines all over the world tend to cooperate in so-called "conferences" and "discussion agreements". These conferences publish freight rates and strengthen the shipping lines' negotiation power with their counterparts, such as shippers, ports, and freight forwarders.

Conferences have largely disappeared in the Caribbean. This has led to a reduction in freight rates in recent years. Hence, recommendations focussing on the strengthening of the negotiation power of regional importers and exporters so as to reduce the strength of these conferences seem to have lost their validity.

¹³ This case was actually experienced by the author during one of the interview, where the counterpart discussed the matter on the telephone.

D. PORT INFRASTRUCTURE AND SUPERSTRUCTURE

The IDB has undertaken a series of in depth studies titled "Infrastructure for Development" (IDB, 1996a, b, c, d, e, f, g, h, i, j), which deal in detail with several Caribbean countries and their ports, as well as other infrastructure such as electricity, roads, and telecommunication. The Caribbean Shipping Association (CSA, 1997a, b, and other documents) regularly collects information from its members on specific port developments within "Territorial Reports". It would not be within the scope of the present study to repeat and analyze the recommendation made by these studies and documents.

Very generally speaking there is a group of ports which have invested heavily in infrastructure in the expectation to attract transshipment cargo. In these case some study even speaks about "over capacity" (CARICOM, 1995).

Some other ports, mainly on Eastern Caribbean islands, Guyana, and Suriname, have not invested sufficiently in their ports. In Guyana's main port, for example, navigational aids are insufficient and do not allow a ship to call at night. Most of these ports do not even have cranes to move containers. This directly increases the total costs of shipping because vessels need to carry their own gear if they want to load and unload in such a port.

IDB (1996k), page 78, describes the conditions in the Caribbean ports as follows:

- **Very good:** Point Lisas (Trinidad and Tobago),
- **Good:** Bahamas, Barbados, Belize, St. Kitts and Nevis,
- **Generally good:** Jamaica,
- **Fair to good:** Dominica,
- **Fair:** St. Lucia, Suriname, Port of Spain (Trinidad),
- **Poor:** Guyana

Put together, there does not exist an overall lack of port capacity. What needs to be improved is the efficient use of this capacity. This includes navigational aids, working hours, and working practices, which will be looked at in the following chapter.

E. INSTITUTIONAL SETTINGS OF PORT AUTHORITIES, CUSTOMS, AND LABOR

1. Legislation and regulations

In many ports, users complain about excessive documentation requirements, delays, and a lack of computerization.

Governments are faced with the difficulty that on the one hand they want to encourage private sector involvement, yet on the other hand they also want to retain certain controls over prices and services. Above all they want to avoid private monopolies, or at least control them. In some cases the government wants to provide a service which the private sector on its own is hesitant to provide at all. In other occasions the private sector has to refrain from an investment because of administrative hurdles or a lack of legislation.

Decisions concerning the specific role of private and public bodies in a port are often difficult to take, because port authorities, customs, ministries and other public bodies whose actions have a direct impact on port operations are confronted with conflicting pressures from port users, labor, the finance ministry, importers and exporters, and suppliers of port services.

The problem is particularly acute in small and less developed countries such as Caribbean islands, where public administrations are often relatively weak and the private sector is dominated by few family owned businesses. In addition – as described above – on an island there is usually little scope for competition between ports or within a port.

A further problem results from the need for port security (i.e. avoidance of drug trafficking and related subjects) and the collection of duties by customs, and the resulting necessary controls of cargo movements. As the salaries of the civil servants who are in charge of inspections and paperwork bear no relation to the value of the traded goods there obviously exists a large potential for “extra official” payments, delays, cumbersome physical controls. In some countries there seem to exist overlapping interests between individuals who assume public posts and private companies who provide port related services.

Government legislation and the port authorities’ regulations in the Caribbean are often the result of “historical” developments and above described conflicts of interest. In many Caribbean countries these difficulties have resulted in **institutional arrangements that are complicated, not always transparent, and often very inflexible.**

In Guyana, for example, there exists no law which permits a port operator to dispose of cargo whose consignee has refused to accept it. In other words, if a container arrives in Georgetown and the company which should receive the cargo has become insolvent, the container has to remain on the grounds of the port. One operator stated that out of the 300 containers which at this very moment are stored on his compounds about 100 have no owner, and some of these boxes have been there now for years. It should be a rather simple task to write the necessary legislation, which would benefit everybody concerned, because the sale of uncollected cargo more than compensates for any expenses

that might have to be incurred by customs, the port authority, the shipping company or the port operator.

Also in Guyana, there simply does not exist a port authority. A department within the ministry of Transport is dealing with most port related matters. Income which is generated by charging ships for pilot services, light dues and port tariffs is partly used to cross subsidize local passenger transport. Responsibilities for dredging and other port related activities do not seem to be clearly defined.

In Port of Prince (Haiti) and Kingston (Jamaica) the Port Authority is involved in port operations and at the same time acts as regulatory body. Private operators who compete with the public port authority then complain that the competition does not take place under the same conditions for every – private and public – operator. In the case of Kingston the port authority justifies the fact that it actually owns several terminals with the fact that the private sector was not prepared to become involved in transshipment some years ago and that the public had to step in to seize this opportunity.

2. Competition within and among ports

In small countries, and particularly on island states, it is difficult to have more than one port. Under the assumption that competition will generally lead to more efficient port operations governments should try to permit more than one public port whenever there is sufficient cargo volume. In any case it is usually **possible to create competition between providers of port services within one single port.**

Competition between different suppliers of port services is closely related to the previous chapter, which dealt with institutional arrangements. For example, in the case of Kingston (Jamaica), the Port Authority itself owns the transshipment terminal whereas a private company owns the general cargo terminal which mainly serves Jamaican imports and exports. The state-owned transshipment terminal is clearly in a better shape than the privately owned general cargo terminal, and its handling charges for container handling are lower. This can be explained by two main factors: 1) the private terminal has a certain monopoly power over national cargo, whereas the state-owned transshipment terminal has to compete with Panama, Haiti, and Bahamas for international cargo. 2) The port authority sets the rules for the operation of both ports, and it would only be natural if were to give certain preferences to its own operations.

Another example is Georgetown (Guyana), where there is now competition among different private and public operators within the port. Although about 60% of the port traffic still goes through one private terminal, **as a result of this competition handling charges have gone down by 25 - 30%.**

In Antigua, on the other hand, shipping companies have been particularly dissatisfied with the port services of the one and only port. As there was no alternative to turn to, they threatened to apply a surcharge of US\$ 600.- per container to compensate for their waiting times and other inconveniences. It seems that this threat has resulted in some recent reforms.

IDB (1996f), page 98f., suggests that “given the low traffic flows of many Caribbean facilities, a *regional* regulatory framework may be called for” in order to promote

inter-port and intra-port competition. Although we agree with the advantages of inter-port and intra-port competition, it is not clear how a regional approach can help. An island's cargo will always have to pass through the same island's port.

3. *Port labor reform*

Modernizing working practices in the ports are a crucial element to improve their efficiency. This is highlighted by practically every document that deals with the matter, and it is a subject most carriers complain about. CARICOM (1995) page 21, for example, writes "a major effort to reform and restructure labour and management systems and in some cases to modernize ports in ACS countries is urgently required."

Labor relations are generally considered to be good and few working days are lost due to strikes. Some problems seem to exist in Sr. Lucia, Trinidad & Tobago, and Antigua. Several ports have already gone through some sort of port labor reform or are in the process of doing so. Barbados, for example, rationalized the Bridgetown port in 1992, and since then commenced rationalized discussions on the related issues of labor and labor re-conversion, restrictive working practices, working conditions, and productivity. In Trinidad the competition between the two major ports of Port of Spain and Point Lisas has led to more flexible working practices in spite of the fact that labor in both ports is represented by the same union.

In some ports, working on a weekend or at night is still impossible. On occasions, the working hours of the workers who load and unload the ship are different from the working hours of port labor handling the cargo within the port. This obviously hinders a smooth collaboration between the two types of labor, and is explained with "historical" reasons.

Cooperation between governments, port authorities, port operators and stevedores, and trade unions is necessary to **modernize payment and reward systems, train and redeploy labor, and reduce unnecessary bureaucratic requirements.**

4. *Port Security*

Although the situation concerning drug trafficking and pilferage has been improving in recent years, these subjects are still considered to be a particular problem in many Caribbean ports.

This has a **direct negative impact on the costs of shipping**. For example, the January 1997 Maritime Security report of the US Department of Transport states that cocaine shipments are still being concealed in commercial maritime containerized cargoes transported through the eastern Caribbean. This undermines the integrity of commercial maritime cargoes and the container trades with the USA and Europe. More inspections of ships coming from the Caribbean directly increase the time (= costs) of Caribbean exports to the USA and Europe. This "targeting" of ships coming from the Caribbean is a strong incentive for shipping companies not to use a Caribbean country for transshipment. Be it justified or not, Evergreen stated that security problems were one of the reasons why it moved at least some transshipment operations from Kingston (Jamaica) to Manzanillo (Panama).

At last years annual CSA meeting, its President specifically highlighted that "The security of legitimate cargoes will continue to be focus of our attention" (CSA Newsletter, December 1996). Barbados specifically contracted a consultancy to look at security matters related to the ongoing port expansion project. Jamaica signed an agreement with the United States to cooperate in suppressing drug trafficking.

5. Customs

Though not directly linked to transport, customs procedures and documentation can be a very burdensome obstacle to trade and transport. The requirement of original documentation to process shipments at customs can cause substantial delays. Although electronically transmitted documents (faxes, electronic mail) are accepted as viable substitutes for original documents in other regions, this has not become practice in the Caribbean.

Whereas the actual loading and unloading of a container in the port is done in hours, to get this container out of the port to the consignee takes usually several days in Caribbean ports, reaching an average of three weeks in Guyana. Cooperation between ports, shipping lines, and customs towards an **improved exchange of information and documentation** could potentially reduce the total time it takes to move cargo from its origin to its final destination.

F. REGIONAL INSTITUTIONS

1. Caribbean Community (CARICOM)

Especially in the context of maritime transport there certainly exists a potentially stronger roll for CARICOM. A "national" maritime policy simply does not make sense in the case of small island states. To be able to sustain a **regional maritime policy**, the CARICOM secretariat may need more support from its member states. From the point of view of fostering trade through improved transport, CARICOM might shift some its attention from matters such as maritime safety and support to the Caribbean shipping industry, to port labor reform, modernization of custom procedures, improved capacity utilization, and other areas where governments could cooperate on a regional basis.

2. Caribbean Shipping Association (CSA)

The CSA's membership is growing, demand for its publications is increasing, and its meetings are attended by up to 250 participants. It does not seem to lack financial contributions from its members. Given its own "Call for Greater Regional Integration" (CSA Newsletter, 12/96) there may exist a potential for a stronger role of the CSA. Its **publications** could be expanded; for example the "Handbook of Caribbean Ports" could become an annual publication which includes more analytical comparisons and indicators. Some of the **data** included in the questionnaires the CSA collects could be stored electronically. It could contract more **studies** on specific subjects which are of interest to its members, and it could include more data and articles in its **Web Site**. All this in addition to the existing important role as a forum for the Caribbean shipping industry

III. SUGGESTIONS FOR A WORK PROGRAM

A. TO IMPROVE DATA COLLECTION AND ANALYSIS

Data collection and analysis requires additional computing and human capacity at a national and regional level. **Training and computing capacity could be provided to national and regional institutions.**

The US Department of Transport (DOT) has recently proposed a project for a "Geographic Information System" (GIS) to the Organization of American States. Should the OAS fund this project, this would tremendously help to convert existing trade and transport related data in Latin America and the Caribbean in a homogenous format and facilitate its analysis. **The OAS and other regional institutions such as CARICOM, ECLAC, and the IDB could cooperate with this GIS project.**

B. TO ASSIST THE CARIBBEAN SHIPPING INDUSTRY

Caribbean shipping companies and training institutions need technical cooperation in order to become better prepared for the challenges posed to them by technological developments and more stringent international conventions. The Caribbean already receives 22% of the technical assistance executed by the International Maritime Organization (IMO). This is the same as the entire region of Asia and more than the assistance to Africa and Latin America put together. **It should remain the task of specialized bodies such as IMO to provide such technical cooperation.**

Although the protection of the marine environment is definitely of concern to regional governments and organizations, it is only of limited relevance in the context of trade and integration.

C. TO IMPROVE CARIBBEAN SHIPPING SERVICES

1. To establish additional shipping services

The establishment of a "NVOCC" (Non-Vessel Operating Common Carrier) through a Government / Private Sector partnership has been proposed on several occasions. This shipping company would serve routes between Caribbean countries which are not presently served regularly. However, before the establishment of such an entity several questions would need to be asked: Why does the private sector not yet provide such services? Why did the company WISCO, which served similar purposes, fail? Which public institution (CARICOM, ACS, a specific government ...) would assume the financial responsibility? Also, it has to be taken into account that there do already exist lines such as Tropical Shipping and CAGEMAR and, given sufficient volume, there is ample capacity of so-called tramp vessels, which will be contracted for a specific journey. In any case, with transshipment in ports like Miami, Kingston (Jamaica), or Port of Spain

(Trinidad), any cargo can be moved anywhere, even though it might take more time than a direct connection.

Governments or regional organizations who want to make sure that certain routes are served directly could possibly do so by **cooperating with an existing carrier rather than the establishment of a new entity**. This carrier would charge the additional costs of servicing uneconomical routes directly to the government or regional institution. Carriers would compete on a biannual basis for this government contract. Such a solution would avoid the costs related to the establishment of a new entity, and it would be absolutely transparent on the costs of such a subsidy.

ECLAC or the IDB might become involved in further studies related to the matter of cooperation with existing carriers. It does not seem feasible for the IDB to financially support the establishment of additional shipping services in the Caribbean.

2. To increase shipping capacity utilization

An improved utilization of existing capacity would require technological as well as institutional arrangements. There seems to exist a real potential for such improvements because in other regions carriers do cooperate more, and, for example, in the US Great Lakes the voluntary Night Cast system which provides information to shippers and carriers seems to improve the capacity utilization. Nevertheless, the first question any related study would have to ask would be why the private sector has not (yet) developed such a system.

Any system, be it cooperation among carriers, working with agents, or a Caribbean Night Cast, should be self financing in the long run but might require funding for initial studies, training and capital investments. **ECLAC might become involved in further studies and the IDB might consider funding of the initial stages of such a system.**

D. TO EXPAND AND IMPROVE PORT INFRASTRUCTURE AND SUPERSTRUCTURE

The IDB is already involved in many port related projects in the Caribbean. Ten of the fourteen CARICOM members have been analyzed very recently for the IDB in a series of studies titled "Infrastructure for Development" (IDB 1996a – k). Apart from ports, these studies also dealt with telecommunication, power generation and other types of infrastructure. IDB (1996k) identified the following infrastructure needs in the ports (excluding Cruise terminals):

- Bahamas: -/-
- Barbados: Increased berthing and storage space, new RoRo facility
- Belize: -/-
- Dominica: -/-
- Guyana: Dredging, navigational aids, container facility, general upgrading of capital stock
- Jamaica: Expanded container facilities in Kingston
- St. Kitts & Nevis: Port expansion
- St. Lucia: -/-
- Suriname: Roofing for sheds, asphaltting of quays, dredging, container facilities
- Trinidad & Tobago: Major modernization of Port of Spain's capital stock, waterfront redevelopment.

Annual investment needs in seaports total roughly US\$ 100 million (IDB, 1996k). On page 97 the same document includes a very informative summary matrix for ten CARICOM members, dealing with investment needs, policy issues, policy reforms, possible sources of financing, and possible obstacles.

More specific suggestions would require in depth research. In Kingston, for example, the IDB is financing a US\$ 300,000.- study on the feasibility of infrastructure, equipment and revenue options for the company Kingston Wharves.

For the purpose of fostering regional integration, investments should focus more on public general cargo ports, which handle more fragmented cargo than the specialized (often private) ports, which usually handle the export of commodities to markets in Europe and the USA.

E. TO RATIONALIZE THE INSTITUTIONAL SETTINGS OF PORT AUTHORITIES, CUSTOMS, AND LABOR

1. To develop a model regulatory framework for port operations in small islands

The division of labor between the private and the public sector, port authority and operator, single ports and national authorities, stevedoring companies and port operators, are often complicated, inefficient and not transparent. Their only explanation is usually "historical".

Reforms are taking place in several countries. **Consideration might be given to the development of a "model" regulatory framework which would take account of the particular situation of small island developing states in the Caribbean.** Such a framework would have to take into account:

- **Deregulation:** Includes the elimination of bureaucratic obstacles, subsidies, and port labor regimes which protect labor from market mechanisms.
- **Decentralization:** Includes financial autonomy of port authorities and operators. Mandatory external auditing based on generally agreed accounting standards would be a necessary complement.
- **Promotion of competition:** Includes anti monopoly laws covering inter-port and intra-port competition. This subject is particularly important and difficult to deal with in small island states.
- **Private sector participation:** Includes specific legislation and – in case of a potential private monopoly – efficient price setting formulas. It should also cover private sector financing.

2. To promote competition

The promotion of competition requires changes in the regulatory framework (see above) and generally involves private sector participation.

As for the promotion of inter-port and intra-port competition in the Caribbean, ECLAC has learned about some recent research dealing with this matter in the Wider Caribbean (Colombia and other countries). **Consideration might be given to the undertaking of similar studies on the promotion of inter-port and intra-port competition in the Eastern Caribbean.**

3. To assist port labor reform

Labor relations in Caribbean ports are generally described as being good, and very few working days have been lost due to labor disputes. At the same time, there exists a need to rationalize port labor. If working practices are to be reformed maintaining good labor relations, this implies the **need for compensation and re-training. This could require funding from the IDB.**

One important basis for port labor reform is the acceptance and understanding of the advantages of such reform for the parties involved. **ECLAC's "Course on Port Modernization – a Pyramid of Interrelated Challenges" would be a useful tool** to achieve this aim. The course is given by ECLAC staff on the basis of three sessions of four hours each. Participants come from port authorities, trade unions, port operators, and other groups involved in port administration, operation, and use. The three sessions are usually given on three evenings after working hours.

4. To improve port security

The need for improvements in this field is imposed by the danger of sanctions from the USA and Europe. Political sensitivities have in the past led to a sub-optimal cooperation between individual Caribbean states and the USA. **There might exist a role for neutral bodies such as ECLAC to undertake studies and provide advice on the costs of inadequate port security.**

Physical equipment and training of security personnel should in the long run be financed by port users through fees for the provision of security related services. **In specific cases there might be a need for initial funding by the IDB.** Support to this matter should not only be seen in the context of drug trafficking itself, but also in the context of the facilitation of (legal) trade.

5. To improve the efficiency of Customs

Customs' traditional focus is on revenue collection. Additional functions include the prevention of drug and arms trafficking. This focus, combined with relatively low pay levels and out dated legislations, prevents Customs officers from **taking the commercial implications of their actions into account.**

In order to reduce the need for documentation and increase the use of electronic data exchanges, Multilateral institutions could assist the countries (1) to **update the relevant legislation**, and (2) to provide Customs personnel with **technical equipment and training**. As far as possible, personnel could also receive "education" so as to balance their traditional focus with the recognition of the commercial implication of their actions.

F. TO SUPPORT A REGIONAL MARITIME STRATEGY

1. To support regional institutions

In the long run the ideal situation would be the development of a complete "Maritime Strategy" which would look at all maritime sub-sectors together and analyze synergies between the different sub-sectors as well as the direct and indirect economic impact of each of them in the Caribbean.

At present, however, it appears that the Caribbean countries lack the institutional capacity to develop and – above all – to implement such a strategy. Unlike, for example, the European Union on a regional level, or Panama on a national level, the Organization of Eastern Caribbean States (OECS), CARICOM, the Association of Caribbean States (ACS), or the Caribbean Shipping Association (CSA) lack the financial resources and the *constitutional strength* to decide upon and implement binding decisions.

CARICOM (1997) summarizes "Several constraints exist to the development of an effective maritime transportation network within the ACS, including

- the level of trade, when measured by both volume and direction,
- the regulatory framework,
- the level of existing services,
- port costs and services,
- and the adherence to or lack of international maritime safety and pollution Conventions"

A CSA proposal to a CARICOM/ CSA forum (CSA, 1994) suggested that "A comprehensive regional maritime policy is vital and should be developed as a matter of urgency in order to ensure that private sector interests are encouraged to invest in and de-

velop the industry” and highlights the need to “Coordinate and cooperate in all areas (...) but at all times respecting each others Sovereignty”.

A regional approach would reduce the duplication of efforts, and avoid social and environmental “dumping” among Caribbean countries. It would help with the collection and analysis of data, and it would strengthen the region’s position within international organizations and regional free trade agreements. **The maritime sector in the Caribbean would thus particularly benefit from stronger regional institutions.**

2. To promote trade

A broad regional strategy should have three main targets:

- (1) Assistance to the Caribbean shipping industry so as to increase the **direct contribution of maritime transport to employment and the generation of income** within the industry itself.
- (2) Assistance to governments so as to increase the efficiency of shipping and port services in the Caribbean. More efficient and inexpensive transport **promotes trade**. Services can be provided by Caribbean or “foreign” companies.
- (3) Assistance to the industry and to governments so as to **reduce the external costs** of maritime transport to the marine environment.

At present, it seems that regional organizations focus more on targets (1) and (3). It is hoped that, with ECLAC’s and IDB’s cooperation, target (2) – the promotion of trade – will earn a higher priority.

IV. ANNEXES

A. COUNTRY TRADE PROFILES

Trade imbalances lead to an increase in the costs of transport. A carrier is less inclined to call at a port if he has only cargo for one direction. In order to look at this matter in more detail, the following pages provide illustrations for seven Caribbean countries. The imports and exports of seven countries are shown with their origin and destination as well as the type of product.

Data refers to **volumes** (kg), which is more relevant than the value of goods, as far as transport is concerned. The charts are to assist the identification of:

- Trade imbalances by **product**
- Trade imbalances by **origin and destination**
- **Dependency** on few commodities or trading partners

It also becomes clear that the countries' trading patterns differ substantially from each other.

Data is for 1995; the source of is CARICOM, who provided tables in electronic format.

B. INTERVIEWS

For the purpose of this study the author held conversations with the following persons:

1. Geneva (Switzerland)

Cañamero, Carlos; Transport Section, **UNCTAD**; Port specialist

Onuki, Isao; Transport Section (shipping), **UNCTAD**; Shipping specialist

2. Georgetown (Guyana)

Bascom, Malcom F.; **Guyana National Shipping Corporation**; Managing Director

English, Ivor; **Transport & Harbours Department**; Director

Fernandes, Chris, **John Fernandes Ltd**, Shipping Agents and Stevedore Contractors

Field-Ridley, Desiree; **CARICOM**; Single Market & Sectorial Programmes Advisor

Gordon, Osmond G, **CARICOM**, Chief Statistician

Low, Robin; **TECMARINE**, Country Manager

Rohler, Herman; **CARICOM**; Programme Manager

Wayne, Evelyn; **CARICOM**; Macroeconomic Affairs

3. Kingston (Jamaica)

Barned, Belva-Jean; **Shipping Association of Jamaica**; Finance & Administrative Manager

Belcher, M.J.; **Kingston Terminal Operators Ltd**; Managing Director

Davidson, Duncan; **Kingston Terminal Operators Ltd**; Deputy Managing Director

Deans, Eric E.; **Ministry of Public Utilities & Transport**; Transportation Advisor

Kinlocke, Robert; **Kingston Wharves Limited**; Managing Director

Lewis, Byron G.; **Port Authority of Jamaica**; Senior Vice President

Savage, Vernal; **Ministry of Public Utilities & Transport**; Senior Director

Silvera, Monica; **Caribbean Shipping Association**; Secretary

4. Miami (USA)

Aguirre, José I; **Miami International Forwarders**; Vice-President

Archer, Michael; **TECMARINE**; Commercial Manager

Berkley, Laura; **Seaboard Marine**; Marketing Manager

Evelyn, Peter; **Seaboard Marine**; Vice President

Novo, Cary; **Seaboard Marine**; Sales Supervisor

Zacarias, Olga; **Seaboard Marine**; Manager North Central America

5. Panama (Panama)

Correa Cuardia, Jesús Antonio; **Marítima del Norte Corp**; Representante
 Dijk, J.G. van; **DSR/ Stinnes West Indies Services GmbH**; Manager
 Feilitzen, Jan von; **APL**; Sales Manager Latin America
 Gonzalez de la Lastra, Carlos; **Mundial de Desarrollo S.A.**; Gerente General
 Lin, Yueh-terng; **Evergreen - Unigreen Marine S.A.**; Chairman
 Malca, Betsy; **Comisión Marítima Nacional**; Asesora Legal
 Moreno, Victoriano; **Panama Canal Commission**; Economist
 Reyna, Rubén; **Autoridad Portuaria**; Sub-Director General
 Rickmers, Paul; **Hutchison, Panama Ports Company**; General Manager
 Sabonge, Rodolfo; **Panama Canal Commission**, Transition Planning Division; Chief
 Sagredo, Hector; **CSAV**; Representante Para Panama y Centroamérica
 Sánchez de Pirro, Virginia; **Dirección General de Consular y Naves**; Asistente del Director
 Sosa, Mariano; **Panama Ports Company**; Gerente de Servicios Marítimo
 Wainio, Richard; **Panama Canal Commission**, Office of Executive Planning; Director
 Watanabe, Hirofumi; **JICA**; Experto en Sistemas de Información

6. Port of Spain (Trinidad & Tobago)

Busby, Lancelot; **ECLAC Trinidad**; Economic Affairs Officer Statistics
 DeSouza, Anne; **Trainmar UNCTAD**; Unit Manager
 Dookeran, Winston; **ECLAC Trinidad**; Senior Economist
 El-Hadj, Sidya Ould; **ECLAC Trinidad**; Economic Affairs Officer
 Gomez, Wendy; **Trainmar UNCTAD**; Project Coordinator
 Powel, John; **TECMARINE**; Regional Manager
 Vinhaś, Lucio; **ECLAC Trinidad**; Data Bases
 Williams, Paul; **L.J. Williams Limited**; Director

7. Washington (USA)

Matson, Christopher; **TransSystems Consultants**; Consultant
 Pisani, John; **US Department of Transport**; Director
 Sepúlveda, Carlos; **IDB**; Economic Affairs Officer
 Sherman, Rex; **American Association of Port Authorities**; Director of Research
 Sobremisana, Carl; **US Department of Transport**; Maritime Transportation Specialist

8. Other

Ashar, Asaf; **Louisiana State University**, Virginia; Professor (met in Barcelona, June 4)

Baddaloo, Capt. Rawle, **Point Lisas Industrial Port Development corporation Limited**, Point Islas, Trinidad (met in London, June 6)

Barnes, Anthony; **Grace, Kennedy & Co. Ltd**; Director; Kingston, Jamaica (met in Barcelona, June 4)

Bosquez Poveda, Olga; **Ambassador of Panama to the International Maritime Organization**; London (met in London, June 6)

Burkhalter, Larry; **ECLAC, Transport Unit**; Officer in charge

Canninga, Mr. G.; **Geru Consultants N. V.**; Managing Director, Oranjestad, Aruba (met in Barcelona, June 4)

Espinoza Ferrey, Jo; **Latin America and Caribbean Section, IMO**, Head of section (met in London, June 6)

Lawler, Ray; **R. A. Lawler Consulting Inc**; Director (by phone and fax)

C. LITERATURE AND SOURCES OF INFORMATION

For **statistical information and a regional overview** the following publications can be consulted: Caribbean/ Latin American Action (1997a), ECALC (1997) and ECLAC (1996). Specific statistical trade information may also be requested from CARICOM, Fax 592-2-66091 (Mr. Osmond G. Gordon and Ms. Andrea Watson-James), and from ECLAC/ Trinidad, Fax 809-6238485 (Mr. Lancelot A. Basby and Mr. Lucio Vinhas).

Most information on **port infrastructure** is found in Caribbean/ Latin American Action (1997), CSA (1995), IDB (1996a, b, c, d, e, f, g, h, i, j) is summarized in IDB (1996k).

Recent documents on **regional maritime strategies and policies** are ACS (1995), CARICOM (1995), CARICOM (1997), ECLAC (1991a), ECLAC (1991b).

For the present study the following documents were consulted:

ACS – Association of Caribbean States (1995): **Declaration of Principles and Plan of Action on Tourism, Trade and Transportation**, Port of Spain

ACS (1997): **Propuestas para la liberalización del comercio y las inversiones en la AEC**, II Reunión del Comité de Desarrollo del Comercio y de las relaciones económicas externas.

Cargo Systems, various issues

C/ LAA – Caribbean / Latin American Action (1997a): **Caribbean Basin Profile**, Cayman Islands

C/ LAA (1997b): **Transportation Recommendations**, Belo Horizonte

CARICOM: **Perspective**, Georgetown, various issues

CARICOM (1981): **The Caribbean Community in the 1980s**, Georgetown

CARICOM (1995): **Maritime Transportation as an Instrument of ACS trade**, Draft, Georgetown.

CARICOM (1997): **Working Paper on Maritime Transportation issues of the Caribbean Community**, Curacao.

CSA – Caribbean Shipping Association: **Newsletter**, Kingston, various issues

CSA (1994): **Framework for a Regional Maritime Policy**, Kingston

CSA (1995): **Handbook of Caribbean Ports**, Kingston.

CSA (1997a): **Barbados Territorial Report**, St. Kitts

CSA (1997b): **Jamaica Territorial Report**, St. Kitts

CDB (1995): **Appraisal Report on Third Port Project Belize**

CLAA (1997): **Caribbean Latin American Action Sectoral Papers - Transportation**, Belo Horizonte, May

- Colombia, Ministerio de Comercio Exterior (1995): **Transporte: Factor de Competitividad**, Bogota
- ECLAC (1983): **A Small-Vessel Development Strategy for the Caribbean**, Draft Project Proposal, Santiago
- ECLAC (1985): **Caribbean Short-Sea Transport**, Santiago
- ECLAC (1989): **Informe de la Reunión del grupo especial de expertos sobre la industria de transporte regular internacional y la competitividad del comercio exterior de los países de América latina y el Caribe**, Santiago
- ECLAC (1991a): **Guidelines for a Caribbean Work Programme on Trade Facilitation and Strengthening of Transport Institutions**, Draft, Port of Spain
- ECLAC (1991b): **Preliminary examination of possibilities for increased trade between CARICOM and non-CARICOM CDCC countries**, Draft, Port of Spain
- ECLAC (1996): **Selected Statistical Indicators of Caribbean Countries**, Port of Spain
- ECLAC (1997): **Anuario Estadístico**, Santiago
- Fairplay**, various issues
- Guyana, Ministry of Finance (1996): **A National Development Strategy for Guayana, chapter 38 – Transport development**, Georgetown
- Hoffmann, Jan (1996a): **A Maritime Regional Profile of Latin America**, Santiago
- Hoffmann, Jan (1996b): **The Potential of Technical Assistance to the Maritime Sector in Latin America**, internal IMO document, Santiago
- Hoffmann, Jan (1997): **An overview of Latin American Ports**, document for the Terminal Operation Conference in Barcelona, Santiago
- IDB (1996a): **Infrastructure for Development: Bahamas**, Washington, June
- IDB (1996b): **Infrastructure for Development: Barbados**, Washington, June
- IDB (1996c): **Infrastructure for Development: Belize**, Washington, June
- IDB (1996d): **Infrastructure for Development: Dominica**, Washington, June
- IDB (1996e): **Infrastructure for Development: St. Kitts & Nevis**, Washington, June
- IDB (1996f): **Infrastructure for Development: St. Lucia**, Washington, June
- IDB (1996g): **Infrastructure for Development: Suriname**, Washington, June
- IDB (1996h): **Infrastructure for Development: Guyana**, Washington, June
- IDB (1996i): **Infrastructure for Development: Jamaica**, Washington, June
- IDB (1996j): **Infrastructure for Development: Trinidad & Tobago**, Washington, June
- IDB (1996k): **Infrastructure for Development: A Policy Agenda for the Caribbean**, Washington, June
- IDB (1997): **Basic Socio-Economic Data**, Washington, April
- IMF (1996): **Direction of Trade Statistics Yearbook**, Washington

- IMO (1996): **IMO News**, London, various issues
- Journal of Commerce**, various issues
- Kingston Wharves Limited (1996): **Annual Report & Accounts 1996**, Kingston
- Lewis, David E. (1996a): **Caribbean Economic Challenges for the new Millennium**, Washington
- Lewis, David E. (1996b): **Esquemas de Integración Regional y Sub-Regional en la Cuenca del Caribe**, Buenos Aires, September
- Meins, Bertus J. (1996): **Adjustment, Reform, and Growth in the Caribbean**, in: Winston C. Dookeran (editor): **Caribbean Choices and Change**, Chapter 3, IDB, Washington
- Miranda, Omedo David (1997): **Hacia la Estrategia Marítima Nacional**, Panama
- Nicholls, Neville V. (1989): **Enhancing Caribbean Competitiveness**, Port of Spain
- Nogueira, Uziel (1997): **The Integration Movement in the Caribbean at Crossroads: Towards a New Approach of Integration**, IDB - INTAL, Buenos Aires
- OEA (1995): **Seminario Interamericano de Infraestructura de Transporte como Factor de Integración**, Informe Final, Washington
- Ramsaran, Ramesh F. (1996): **Small Economies, Trade Preferences and Relations with Latin (South) America**, Buenos Aires, September
- Skeete, Charles A.T. (1996): **Caribbean Identity and Survival in a Global Economy**, in: Winston C. Dookeran (editor): **Caribbean Choices and Change**, Chapter 3, IDB, Washington
- UNCTAD (1996a): **Island Developing Countries**, New York
- UNCTAD (1996b): **Review of Maritime Transport**, Geneva
- US Department of Transport – DOT (1997): **Maritime Security Report**, Washington
- World Bank (1996): **Prospects for Service Exports from the English Speaking Caribbean**, Washington