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CARIBTRADE
TRADE STATISTICS DATABASE

USER MANUAL

Contents

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Chapter 1

Introduction to CARIBTRADE

Welcome to **CARIBTRADE**, the Merchandise Trade and Transportation Database prepared by ECLAC Subregional Headquarters for the Caribbean. The database was inspired by the need to provide to a wide variety of users rapid answers to their queries on Trade Statistics of the Caribbean countries. **CARIBTRADE** is user-friendly and comprehensive in its capabilities. Generous funding by the Government of the Kingdom of the Netherlands has made this product possible. ECLAC hereby registers its gratitude for the opportunity presented to it through the funding. Apart from answering queries on direction of trade, the database provides analysis of the trade data in a relatively novel manner of addressing strategic options, given a country's recent trade performance. To do this it presents the capability of examining the trade through different lenses. Indicators seek to make the trade analyst aware of recent trends in trade and in the performance of items traded, while providing for the shaping of policies based on observed trends and patterns of trade against the changes taking place in the external environment.

This database has drawn on the data provided by the several Caribbean countries, which have used different nomenclatures and coding schemes to prepare and process their trade data. The data have been normalized to make them as comparable as possible. Its location on the Internet is ECLAC's contribution to more widespread access to critical data that has in the past not been as generally available as the present offering. It is a contribution to the provision of data that can assist trade negotiators, researchers and the business community to make informed decisions.

Access to the database has been designed at two levels. The first level of access accommodates the queries of a wide variety of users and is provided up to the third digit of the Standard International Trade Classification (SITC) Rev. 3 and up to the second digit of the Harmonised System (HS) classification. Another level of access is accorded to a limited number of personnel at national level. The Chief Statisticians of the contributing countries will have access to their data at the most disaggregated level of data supplied. Researchers wishing the use of data at a lower level of disaggregation than 3 digits may contact the Chief Statisticians of the countries for that level of data. A list of Chief Statisticians is presented on the web page for easy contact.

The countries whose data are included in the present database are the following: Anguilla, Antigua and Barbuda, Aruba, Barbados, Belize, British Virgin Islands, Dominica, Grenada, Guyana, Jamaica, Montserrat, the Netherlands Antilles, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines and Trinidad and Tobago.

Chapter 2

CARIBTRADE – Design Considerations

CARIBTRADE has been designed to provide on-line remote access to a database of trade statistics to serve a variety of users while observing the wish of the Chief Statisticians to reserve publication at the item level for their offices.

2-1 The Utility of CARIBTRADE

The on-line feature of the database is an important feature of the move towards the modernization of statistical and information services in the Caribbean. It allows the remote user the ability to query the database at any time, effectively extending the hours of contact with the Statistical Office. The user can interact with the data and refine the query to obtain the most accurate answers being sought – all without the intervention of a staff member of the Statistical Office.

2-2 Who are the users of CARIBTRADE?

There are 3 main categories of user.

The **first** category is the general user who may want a quick idea of magnitudes (volume and value) involved in the international trade with the countries. This category includes students looking for data to complete research assignments.

The **second** category of user includes investors who wish to assess the feasibility of entry into a new market or commencement of production of a given item. In this case, the user would be interested in conducting market research.

The **third** category of user would be the trade personnel who are involved in the analysis of trade in the subregion, such as ECLAC. Also included in this group are personnel and organizations involved in negotiations with other countries or within rounds of trade negotiations such as within the World Trade Organization (WTO) or other trade agreements being discussed or already in place. The data requirements of this category would at times be of a disaggregated nature. Included in this category would be personnel from the Chambers of Commerce, the Ministries of Trade, the Universities in the subregion and elsewhere and the Regional Negotiating Bodies.

The database design has accommodated the analysis of a number of trading blocs of interest to researchers. This element of pre-planning removes the difficulty of the researcher having to identify the countries in a given trading bloc every time that analysis is made involving that bloc. This category of user would be interested in examining the

dynamism and competitiveness of imports and exports traded. Market share considerations and the changing nature of the relative importance of one item as compared with another would feature among the prime areas of interest of the negotiators. These interests are served in the database by an analysis module that utilizes some of the indicators presented in two specialist software packages prepared by ECLAC but applied in this case for the first time to Caribbean data.

2-3 Access to data at the item level

Researchers may gain access to the data at the item level, but this is not automatic. They must contact the Chief Statistician of each of the countries for this permission. The Chief Statistician would then be able to conduct the query or arrange for it to be done and then transmit the results to the researcher. E-mail hyperlinks for contact with the Chief Statisticians have been designed and are presented on the website.

2-4 Justification for the use of the REDATAM engine

In order to deliver dynamically created query results on the worldwide web a fast database engine is required. REDATAM has been used to process population and housing censuses in countries with large populations. The designers of the database chose that software on that basis after verifying its speed in handling queries on a sample trade dataset. The processing speed of the search engine derives from the storage of compressed data of large datasets. In **CARIBTRADE**, close to 20 million records are stored for quick query and retrieval on the worldwide web. It would be difficult to identify another piece of software affordable to the small Caribbean countries that would deliver a comparable performance without the assistance of a programmer.

2-5 Hierarchical processing

The structure of REDATAM is hierarchical. This caters for the storage and analysis of data based on two or more levels in a manner that is more efficient than most other tabulation programmes. The application of the software to **CARIBTRADE** provides a match between the design of the software and the trade data which is hierarchical and which is searched at varying levels of disaggregation. In this database the general user (public access) can query the database at the 1, 2 and 3-digit levels of the SITC and the 2-digit level of the HS.

The application of **REDATAM** to the trade databases produced in **CARIBTRADE** provides an efficient solution to the need to produce a genuine online query facility and not a table recall facility in which tables are stored and merely recalled by the user. In this database the remote user builds the required table every time that a query is made.

2-6 The design of the query result

The query result is presented on an html page. This page may be printed and discarded or it can be saved and placed into a folder of query results and catalogued according to the query. This is one solution to the retrieval and subsequent query answer process, but is not entirely satisfactory as it is static and will not change in accordance with corrections or updates made to data in the database. Moreover it requires the establishment of a query recognition capability and a cataloguing of query results. This attempt to conserve on processing time may well end in the expenditure of more time inefficiently spent.

A more elegant solution would be to take advantage of the speed of the REDATAM engine and process the query every time a query is made. This "just-in-time" design feature is in keeping with the minimization of inventories of static files in a folder waiting to be summoned.

2-7 Country groupings

In order to facilitate analysis, a number of country groupings are included in the database. They form the basis on which the researcher may choose to build other country groupings to service his or her research requirement. The groupings are found on the query page and are reflected in the query result page where the grouping of countries is presented at the head of the table that carries the query result. The query differentiates country groups as against countries in the group. The latter query will yield information for each of the countries that form the group whereas the query on country group will yield a total of all of the countries that form the group.

2-8 Data quality

A number of reasons may be adduced to explain the imperfect nature of the trade data. More intense supervision at the point of collection of the trade statistics would go a long way towards securing quality data that would ensure that adequate description of each product is made available. Incomplete commodity descriptions would result in discrepancies in totals at each level of the trade number hierarchy. Countries have been made aware of the need to improve the quality of the data. Grossly incomplete item numbers have had to be dropped. These, however, accounted for less than .031 percent of the total value of trade recorded.

Chapter 3

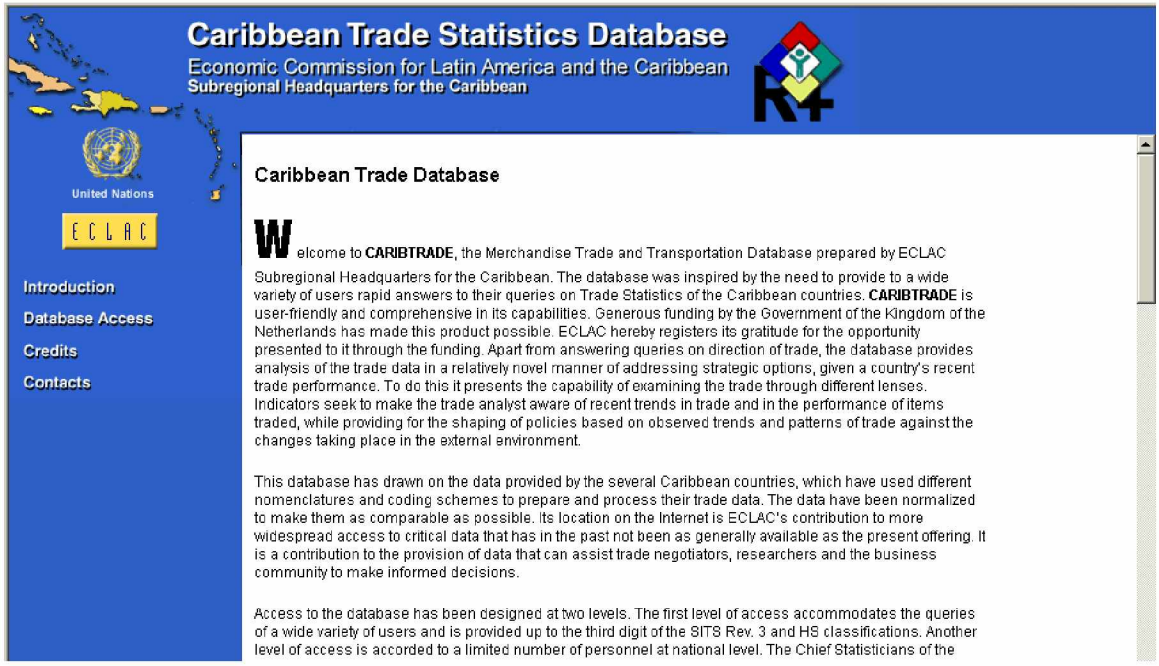
Working with CARIBTRADE

3-1 Accessing CARIBTRADE

Use your Internet browser and go to:

http://caritrade

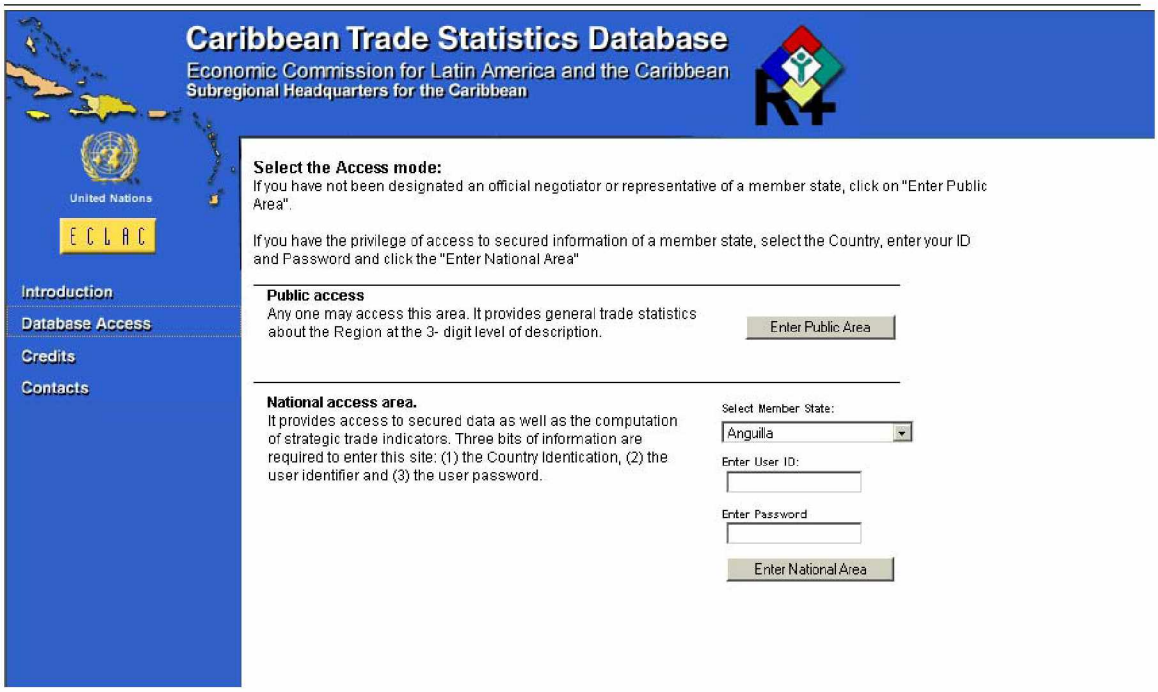
The page that appears looks like this:



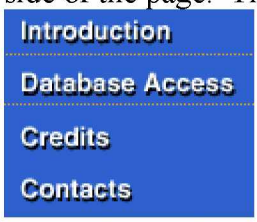
This is in fact the page that introduces the user to the database. It is the Introduction. If you look to the left of the page, you will see the word "Introduction" on the stub. To go further into the database, click on

Database Access

You will see the following page:



Note the left-hand side. It contains links to three other pages. The links are to the left side of the page. They are:



You may click on them to explore the page. Return to the page displayed by clicking on the large left arrow on the stub at the top of the page.

To re-cap, clicking on:

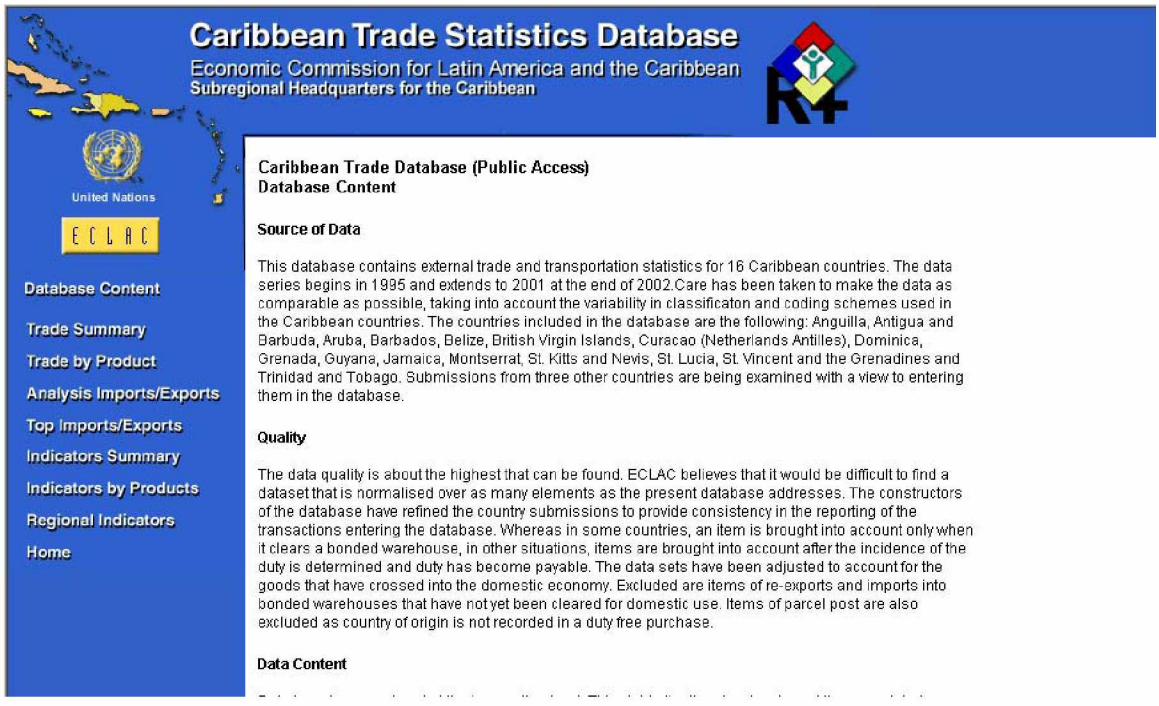
brings you to the page represented in the screen as shown above. You now have the choice of selecting the level of access that you have been accorded. As a general public user, you have access only to the Public Access level. Click on:

3-2 Navigating CARIBTRADE

If you are a user who has come to the web site to look for data, you have access to the public domain part of the database. This will give access to data up to the third digit of the SITC Rev. 3 or the HS two-digit level. Click on

Chief Statisticians and other specially designated officials have access to the full data set of their country only. This is to facilitate their access at all times to the data at the item level for their official purposes. They can access their full data set by selecting their country from the combo box and entering their user ID and password and clicking on:

Clicking on the Enter Public Area button leads you to the following page:

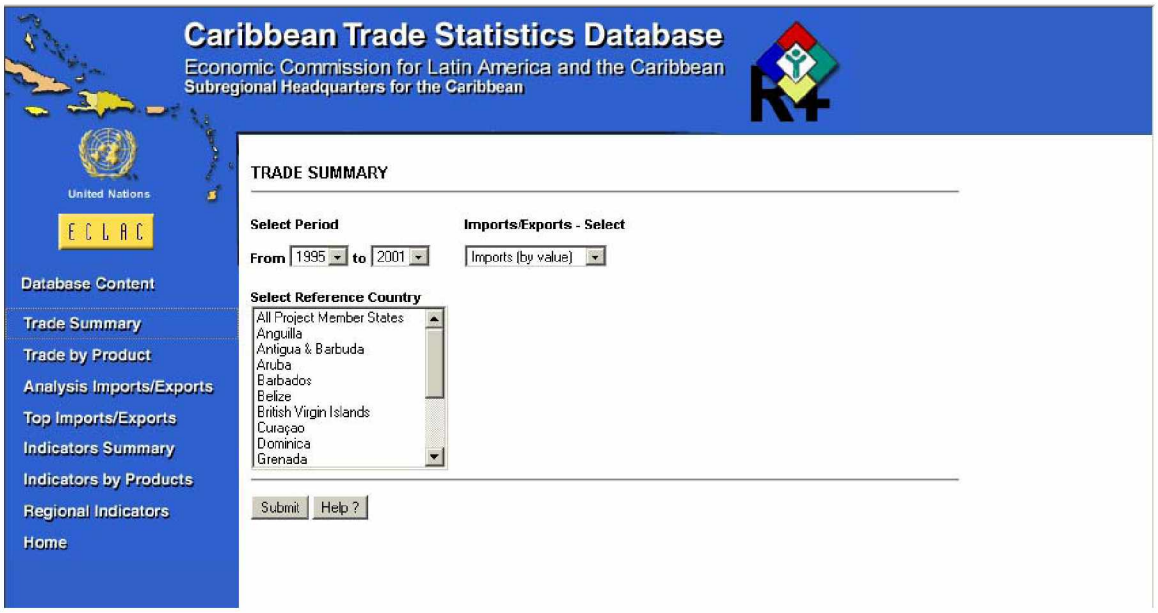


This page provides information on the source of the data, some commentary on data quality, content of the database, completeness in terms of country coverage and provides a hypertext link to the description of the indicators that are included as additional elements of analysis in the database.

The left portion of the page (the vertical blue column) contains page names that are hyper linked to the queries that can be made remotely by the user. They are:

Click on

This opens a page that allows you to design your query without the knowledge of Boolean logic or how to write a query script in SQL. The page that comes up looks like the following:



Remember to select a country by clicking on it with the left mouse button to highlight it. You may select more than one country. To do this, click on the first then hold down the

Ctrl key while clicking on subsequent countries. You may vary the number of years to be shown in the query by selecting the years that you need from the combo boxes named "From" and "To". In addition, you may choose to select what you wish to query from the choices in the "Imports/Exports – Select" combo box. Pressing the down arrow in the combo boxes will open up the choices available to you. Remember to make a choice from each of the areas available to you for choice. You must send your command to the computer by clicking on "Submit". This is the executive word of command that starts the processing of your query. If you have failed to state your query correctly, you will receive a feedback indicating that you have omitted to highlight a part of the information necessary to make the query a valid one. More information on this is available in Section 4-1that addresses Querying CARIBTRADE.

3-3 Database content and Analysis

The database contains several data elements captured from the official trade statistics of the countries. They are:
Item number (SITC Rev. 3)
Item number (HS)
Item description
Trade Flow (Imports or Exports)
Quantity A and B
Value in US dollars or in National Currency
Duty Payable
Means of Transport
Vessel ID
Port of entry

3-4 Content of the database

The table below describes the contents of the database as at June 2003.

COUNTRY	1995	1996	1997	1998	1999	2000	2001
ANGUILLA		X		X	X	X	X
ANTIGUA & BARBUDA					X		
ARUBA	X	X	X	X	X	X	X
BARBADOS	X	X	X	X	X	X	X
BELIZE	X	X	X	X	X	X	X
BRITISH VIRGIN ISLANDS		X	X		X		
DOMINICA	X	X	X	X	X	X	X
GRENADA	X	X	X	X	X	X	X
GUYANA			X	X	X	X	X
JAMAICA	X	X	X	X	X	X	X
MONTSERRAT					X		X
NETHERLANDS ANTILLES				X	X	X	X
ST. KITTS AND NEVIS				X	X	X	X
ST. LUCIA	X	X	X	X	X	X	X
ST.VINCENT & THE GRENADINES	X	X	X	X	X	X	X
TRINIDAD AND TOBAGO	X	X	X	X	X	X	X

The following entries:

- Duty Payable
- Means of Transport
- Vessel ID and
- Port of Entry

have not yet been incorporated into the analysis, as several countries have submitted data that are deficient in these fields.

It would be possible to add items to the database in response to the requests of users, provided that the addition does not alter the basic structure of the file. The database will be updated on an annual basis in the first instance. The periodicity of reporting may change in accordance with the effective extra budgetary support given to the trade database by interested agencies.

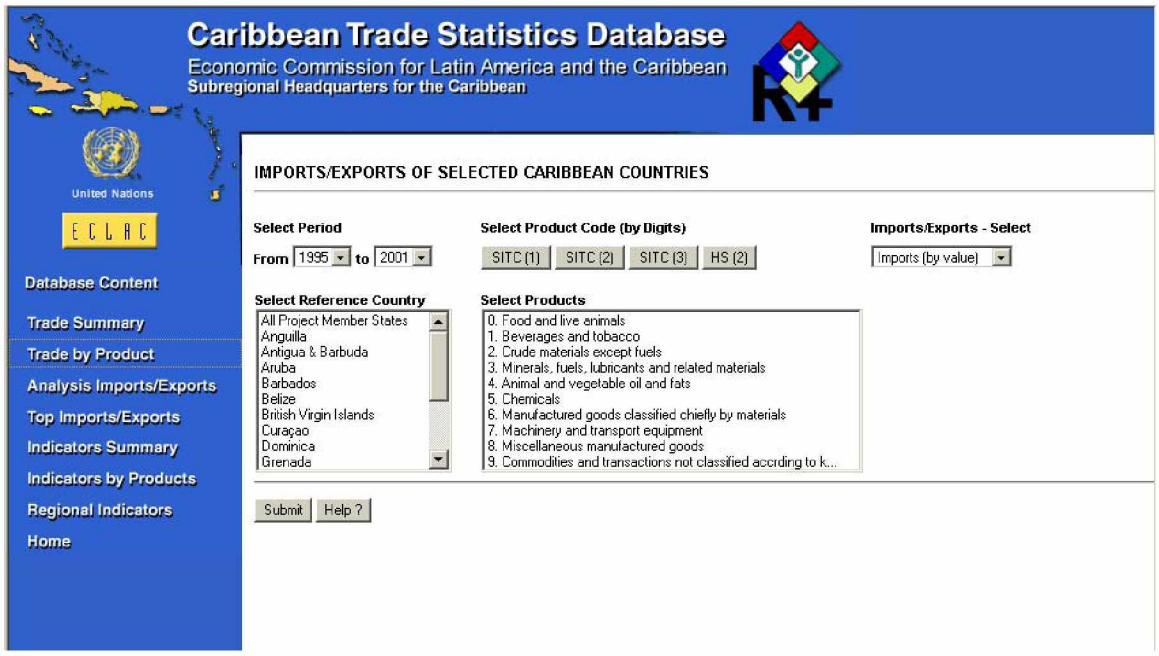
The database incorporates an analysis module that draws from two ECLAC trade analysis software packages. This represents a value added element, as usually such calculations would not be made or data would have had to be exported or transcribed to another analytic facility to arrive at the computations. This manual guides the user through the analysis and interpretation of some of the indicators.

Chapter 4

Obtaining Answers from CARIBTRADE

4-1 Querying CARIBTRADE

Click on Trade by Product button. The following page appears.



You may select from the combo boxes the period of time that you wish to include in your query. Remember that the database incorporates data from 1995 to 2001 in this first instance. Make a choice of years here. The second selection is the level of disaggregation that you wish to work with. You have one of three choices – the 1, 2 or 3-digit levels of the SITC or the 2-digit level of the HS. The box on the right of the page allows you to select whether the study will include whether we are looking at Imports or Exports. Indicate which of these flows you wish to examine.

Next, you select the reference country or countries and select the products at the level of disaggregation that you have already clicked on. In the **Select Products** box, select the product(s) that you wish to examine. To do this, click with the mouse on the first of the products you wish to study and holding down the Ctrl key, point to the other product(s) you wish to include in the query.

To process your query, click on the Submit button at the bottom right hand side of the page, under the **Select Reference Country** box.

Your query will look like the following:

Note that if you do not highlight one of the options such as Reference Country or Selected Products, your query will not be executed. If you have highlighted all of the necessary options, your query result will be presented on a page that looks like the following:

Caribbean Trade Database (Public Access)

IMPORTS/EXPORTS OF SELECTED CARIBBEAN COUNTRIES
IMPORTS (by Value)

Country	Product	Period						
Barbados		1995	1996	1997	1998	1999	2000	2001
	0.Food and live animal...	$78,133,116	$128,528,927	$75,401,939	$66,585,735	$48,951,381	$70,561,961	$136,960,978
	Total	$78,133,116	$128,528,927	$75,401,939	$66,585,735	$48,951,381	$70,561,961	$136,960,978

Notes: All Values in US dollars/All Volumes in kg

4-2 Interpreting the query result

The above table is self-explanatory. The Note at the bottom of the table indicates the currency used in the analysis of the trade.

If two or more countries are selected, the output tables are presented as below in the next screen, with the additional countries stacked below the first.

Caribbean Trade Database (Public Access)

IMPORTS/EXPORTS OF SELECTED CARIBBEAN COUNTRIES
IMPORTS (by Value)

Country	Product	Period						
Barbados		1995	1996	1997	1998	1999	2000	2001
	0.Food and live animal...	$78,133,116	$128,528,927	$75,401,939	$66,585,735	$48,951,381	$70,561,961	$136,960,978
	Total	$78,133,116	$128,528,927	$75,401,939	$66,585,735	$48,951,381	$70,561,961	$136,960,978
Belize		1995	1996	1997	1998	1999	2000	2001
	0.Food and live animal...	$118,030,273	$75,096,867	$48,803,554	$14,305,127	$16,222,835	$19,525,225	$17,811,023
	Total	$118,030,273	$75,096,867	$48,803,554	$14,305,127	$16,222,835	$19,525,225	$17,811,023

Notes: All Values in US dollars/All Volumes in kg

If the query is incomplete, the REDATAM engine returns the following error condition:

The page cannot be displayed

There is a problem with the page you are trying to reach and it cannot be displayed.

Please try the following:

- Open the caritrade home page, and then look for links to the information you want.
- Click the Refresh button, or try again later.
- Click Search to look for information on the Internet.
- You can also see a list of related sites.

HTTP 500 - Internal server error
Internet Explorer

If the answer of the query is no data, this is in effect the null set. The database engine returns a small table outline with no data in it.

If you select Analysis of Imports/Exports, and select as reference country Barbados and query the database for Imports of Fruit and vegetables from the OECS group for the period 1995 to 1997, you should obtain the following table:

Caribbean Trade Database (Public Access)

Analysis of Imports/Exports
IMPORTS (by Value)

Partners: O.E.C.S.

Product	Trade Partner	Country	Period			
05.Vegetables and fruit...	O.E.C.S.		1995	1996	1997	Total
		Barbados	$4,712,453	$5,537,080	$106,900	$10,356,433
		Total	$4,712,453	$5,537,080	$106,900	$10,356,433
	Total		1995	1996	1997	Total
		Barbados	$4,712,453	$5,537,080	$106,900	$10,356,433
		Total	$4,712,453	$5,537,080	$106,900	$10,356,433
Total	O.E.C.S.		1995	1996	1997	Total
		Barbados	$4,712,453	$5,537,080	$106,900	$10,356,433
		Total	$4,712,453	$5,537,080	$106,900	$10,356,433
	Total		1995	1996	1997	Total
		Barbados	$4,712,453	$5,537,080	$106,900	$10,356,433
		Total	$4,712,453	$5,537,080	$106,900	$10,356,433

Notes: All Values in US dollars/All Volumes in kg

The above table is interpreted by observing the following:

The OECS is reported on as a group because we asked for the OECS group. Had we asked for OECS Countries, we would have seen each of the OECS countries listed individually.
The first column described the product. It is at the 2-digit level of the SITC.
The second column states the name of the trading partner. This is the third party.
The third column states the name of the country. In the above example it is Barbados.
The table heading states IMPORTS.
The table is therefore showing imports into Barbados from the OECS group for the period 1995 to 1997.
The currency is US dollars.

Similarly, queries can be made on the basis of the HS nomenclature.

Chapter 5

Querying CARIBTRADE using Indicator tools

5.1 Trade indicators: A reference guide

For ease of reference the explanation of terms used in the analysis of indicators is reproduced here to guide the user and avoid him or her having to move between the explanation on the web page and the tutorial in the manual. When appropriate and for expository purposes the computation and interpretation of the indicators is illustrated with a single country case, that of Trinidad and Tobago.

Reference country. The reference country is the country providing the data for imports and exports. The reference country is designated by the subscript 'i.'

Partner country. The partner country is the country engaging in trading activities with the reference country. The partner country is designated by the subscript 'j.' Partner country may also refer to a group of countries.

Country Selection. Several options can be selected: all countries, individual countries, country groupings:

All countries. This option shows the total trade with all the countries in the world.

Top 10 countries. This option shows the trade with the top 10 trading partners ranked according to the latest year available.

Individual countries. The name of individual countries is displayed and any country can be selected.

Country groupings. Pre-defined groupings appear in the list of trading partners. These are based on geographical location (North America), regional integration associations (Mercosur) or recognized economic associations (OPEC). Pre-defined groups are listed alphabetically. This option also allows the user to create additional country groupings that are not found in the pre-defined groupings.

Products. Products are designated by the subscript "k".

Product selection. Several product selections are available: all products, specific products, top products.

All products. This option gives the total values for imports and exports of all products entering or leaving a country or a country grouping.

Specific products. This option allows the identification of products by a: i) code search using the appropriate code systems classification; ii) name search; iii) browsing through the list of sections and chapters appropriate to each systems code classification.

Top products. This option gives a list of the top 25 products in terms of the value of exports or imports.

Systems code. This module provides a description of the different systems available to classify trade data. Several systems are available: the Harmonized System, the Standard Industrial Classification, Standard International Trade Classification, the North American Industry Classification System. In this database, only the Harmonized System and the International Trade Classification (SITC) Rev.3 are used.

The Harmonized System (HS) is an international commodity classification developed under the auspices of the World Customs Organization (WCO). The system is the same for all countries up to the six-digit codes. It is based on the principle that goods are classified by what they are and not according to their stage of fabrication, use, 'made in' or any other criteria. Its nomenclature is structured by economic activity or component material. It is divided into 21 sections and 97 chapters. Beginning on January 1, 1989, the new HS numbers replaced previously adhered-to schedules in over 50 countries, including the United States.

Standard International Trade Classification (SITC): The SITC was developed by the United Nations in 1950 and is used solely by international organizations for reporting international trade. The SITC had been revised several times; the current version is Revision 3. Nonetheless Revision 2 is often used because it provides longer time series for exports and imports. The SITC revision 2 differentiates 786 subgroups at the four digit code level which are then aggregated into 233 groups at the three digit level code. These are in turn aggregated into 63 chapters, which are consolidated into 10 sections (economic categories).

Standard Industrial Classification (SIC): The SIC was, until 1997, the classification standard underlying all establishment-based U.S. economic statistics classified by industry. Replaced in 1997 by NAICS.

The North American Industry Classification System (NAICS) is the new standard code system to describe business establishments and industries, replacing the Standard Industrial Classification (SIC) codes.

Aggregation and aggregation check: Trade data can be presented according to different levels of aggregation or disaggregation. The level of aggregation (disaggregation) will depend on the system code available to classify trade data.

Import value. It is the value of imports either in the aggregate or for specific products measured in current United States dollars. The import value is designated by the upper case letter M. Mi refers to the imports of the reference country and Mij refers to the imports of the reference country (i) from the partner country (j).

Export value. It is the value of exports either in the aggregate or for specific products measure in current United States dollars. The import value is designated by the upper case letter X. Xi refers to the imports of the reference country and Xij refers to the exports of the reference country (i) from the partner country (j).

Valuation. Exports and imports can be valued F.O.B ('free on board'), C.I.F ('cost, insurance, freight'), F.A.S ('free alongside ship'). F.O.B valuation excludes the freight and insurance costs incurred in bringing a good from or to the reference country to the partner country. C.I.F valuation includes the freight and insurance costs incurred in bringing a good from or to the reference country to the partner country. F.A.S valuation is based on the transaction price including inland freight, insurance, and other charges in placing the merchandise alongside the carrier at the U.S. port of exportation. It excludes the cost of loading the goods aboard the exporting carrier and the freight insurance, transportation, costs, and other charges applied beyond the port of exportation.

Total imports. These include all goods that have entered the country by crossing territorial boundaries. Total imports are designated by Mt where t designates total. Total imports for the reference country are designated by Mit. Mijt refers to the imports of the reference country (i) from the partner country (j).

Total exports. Includes all goods leaving the country through customs for a foreign destination. It is the sum of domestic exports and re-exports. Total exports for the reference are designated by Xit where t designates total. Mijt refers to the exports of the reference country (i) to the partner country (j).

Domestic exports. Includes the exports of all goods grown, produced, extracted or manufactured in the country (through customs) for a foreign destination.

Re-exports. Includes exports of goods that have previously entered the country and are leaving the country as when imported.

Balance of trade of goods. It is defined as the difference between merchandise exports and imports. A negative sign indicates a deficit and a positive sign a surplus. Let Xit be the total export value of reference country i and Mit be the total value of imports of country i. The balance of trade for all products of reference country i is equal to BTi = Xit-Mit. The balance of trade can be also computed for a given product or a group of products. Let Xik be the export value of reference country i for product k and Mik be the import value of reference country i for product k. The balance of trade for product k of reference country i is equal to Xik-Mik. The balance of trade of goods for the reference country is designated by BTig where g stands for goods. The balance of trade can be computed for a with respect to a group of countries. Let Mij stand for the imports of country i from country grouping j and Xij stand for the exports of country i to country grouping j. The balance of trade for reference country I with respect to country grouping, j, is equal to BTij= Xij-Mij. As an example, if the total value of merchandise exports (Xit) of Trinidad and Tobago is equal to 100, 000 million dollars and the total value **of its** merchandise imports equals 200,000 million dollars, the trade balance is equal to,Xit – Mit = 100,000 – 200,000 = -100,000 million dollars. That is Trinidad and Tobago has a trade deficit with the rest of the world equal to 100,000 million dollars. A similar exercise can be carried out at the product level. If the petroleum exports of Trinidad and Tobago (Xik) are equal to 60,000 million dollars and its petroleum imports (Mik) are equal to 10,000 million dollars, the balance of trade of Trinidad and Tobago for petroleum is equal to Xik –Mik = 60,000 – 10,000 = 50,000 million dollars. In other words Trinidad

and Tobago a surplus in its balance of trade **in petroleum products** equal to 50,000 million dollars. As mentioned earlier the balance of trade can also be computed for a subset of countries. If the value of exports of Trinidad and Tobago to CARICOM (Xij, where j represents the country grouping, CARICOM) equals 40,000 million dollars and its imports 30,000 million dollars (Mij) then Trinidad and Tobago has a surplus of 10,000 million dollars with the country grouping CARICOM.

Balance of trade of services. It is defined as the difference between exports and imports of services. A negative sign indicates a deficit and a positive sign a surplus. The balance of trade in services for the reference is designated by BTsi where s stands for services. The balance of trade in services can also be computed for country i with respect for a group of countries j, as BTsij.

Current account balance. It is defined as the sum of the balance of trade in merchandise and services. The current account balance is designated by CAB and is equal to BTg+BTs. The balance of trade for the reference country is designated by CABi. The current account balance can also be computed for country i with respect for a group of countries j, as CABij.

Import Duties. Refers to taxes paid on cross border transaction and which are registered by the custom administration of the importing country. Import duties are designated by letter T and the lower case m, Tm. As an example Tmti stands for the total value of import duties paid by country i. In the same way, Tmtik signifies the total value of duties paid by reference country i for the import of k. The duties paid by reference country i for the import of a product or set of products from country (or a country grouping) j is equal to Tmijk.

Implicit duty rate. In the case of imports the implicit duty rate equals the value of duties divided by the value of total imports multiplied by a 100. That is, IDR = (Tmt/Mit)*100 where Tmt is equal to duties paid by reference country i and Mit is total imports of reference country i. The implicit duty rate can also be obtained for a specific product or sets of products. In this case it would be equal to IDR = (Tmtik/Mik)*100 where Tmtik signifies the total value of duties paid by reference country i for the import of k and Mik is the value of imports of product k. As an example let the total value of duties of Trinidad and Tobago for a given year (Tmt) equal to 10,000 million dollars and its the total value of imports (Mt) for the same year equal 200,000. The implicit duty rate is equal to (Tmt/Mit)*100 = (10,000/200,000)*100= 5%.

Export Duties. Refers to taxes paid on cross border transaction and which are registered by the custom administration of the exporting country. Import duties are designated by letter T and the lower case x, Tx. As an example Txti stands for the total value of export duties paid by reference country i. In the same way, Txik signifies the total value of duties paid by reference country i for the export of k. The duties paid by reference country i for the export of a product or set of products to country (or a country grouping) j is equal to Txijk.

Import country market share. It is the share of a partner country in the total imports of the reference country. It is equal to CSij = Mij/Mit*100 where, CSji is the country market

share of partner country j in country i and Mij are the imports of reference country i from partner country j and Mit are the total imports of country i. Let the value of the imports of Trinidad and Tobago from CARICOM (Mij) equal 30,000 million dollars and the value of its total imports equal 200,000 (as in the example above). In this case the import market share of CARICOM in Trinidad and Tobago's total imports (that is what CARICOM imports represents for Trinidad and Tobago's total imports) is equal to (30,000/200,000)*100= 15%. In other words, 15% of Trinidad and Tobago's total imports originate in CARICOM countries.

Export country market share. It is the share of a partner country in the total imports of the reference country. It is equal to CSij = Xij/Xit*100 where, CSji is the country market share of partner country j in country i and Xij are the imports of reference country i from partner country j and Xit are the total imports of country i. Following exactly the same logic as with the example of the import country market share, let the value of the exports of Trinidad and Tobago to CARICOM (Mij) equal 40,000 million dollars and the value of its total exports equal 100,000 (as in the example above). In this case the export market share of CARICOM in Trinidad and Tobago's total exports (that is what CARICOM imports represents for Trinidad and Tobago's total exports) is equal to (40,000/100,000)*100= 40%. In other words, 40% of Trinidad and Tobago's total exports are destined to CARICOM countries.

Import product market share. It is the share of a particular product in the total imports of the reference country. It is equal to PSki = Mik/Mit*100 where, PSki is the product share of product k in reference country's i total imports and Mik are the imports of country i of product k and Mit are the total imports of country i. Let, Mik represent the value of imports of petroleum products of Trinidad and Tobago and Mit the total value of imports. If Mik is equal to 10,000 million dollars and Mit is equal to 200,000 million dollars, the import product market share is equal to (10,000/200,000)*100 = 5%. That is, petroleum products represents 5% of Trinidad and Tobago's total imports.

Export product market share. It is the share of a particular product in the total exports of the reference country. It is equal to PSki = Xik/Xit*100 where, PSki is the product share of product k in reference country's i total imports and Xik are the imports of country i of product k and Xit are the total imports of country i. Let, Xik represent the value of exports of petroleum products of Trinidad and Tobago and Xit the total value of exports. If Xik is equal to 60,000 million dollars and Xit is equal to 100,000 million dollars, the export product market share is equal to (60,000/100,000)*100 = 60%. That is, petroleum products represents 60% of Trinidad and Tobago's total exports.

Import country market share by product . It refers to the share of a partner country (or country grouping) in a product in the imports of the reference country. It is equal to CSijk = Mijk/Mit*100 where, CSjik is the country market share of partner country j in country i for product k and Mij are the imports of reference country i from partner country j for product k and Mit are the total imports of country i. Let Mijt represent the imports of food products of Trinidad and Tobago from other CARICOM economies and let Mit represent the total imports of Trinidad and Tobago. As in previous examples Mit is equal

to 200,000. Mijt is assumed to be equal to 15,000 million dollars. The import country market share is equal to Mijt/Mit*100 = (15,000/200,000)*100= 7.5%. This indicator shows that the imports of food of Trinidad and Tobago from CARICOM countries represent 7.5% of its total imports.

Export country market share by product . It refers to the share of a partner country (or country grouping) in a product in the exports of the reference country. It is equal to CSijk = Xijk/Xit*100 where, CSjik is the country market share of partner country j in country i for product k and Xij are the exports of reference country i from partner country j for product k and Xit are the total exports of country i. Let Xijt represent the exports of petroleum products of Trinidad and Tobago to other CARICOM economies and let Xit represent the total imports of Trinidad and Tobago. As in previous examples Xit is equal to 100,000. Xijt is assumed to be equal to 20,000 million dollars. The export country market share is equal to Xijt/Xit*100 = (20,000/100,000)*100= 20%. This indicator shows that the exports of petroleum products of Trinidad and Tobago to CARICOM countries represent 20% of its total imports.

Coverage ratio. It is defined as the ratio of exports over imports and measures the degree to which import payments are covered with export receipts. A plot of the ratio over time will indicate whether imports are growing at a faster (slower) rate that exports and thus whether a given country or regional grouping exhibits a tendency towards a balance of trade or current account balance deficit (surplus). A declining ratio means that imports are growing faster than exports and that the country has a balance of trade deficit. A rising ratio means that imports are growing slower than exports and that the country has a balance of trade surplus. The coverage ratio is equal to CV = Xit/Mit where CV is the coverage ratio and Xit and Mit are the total exports and imports of country i. The coverage ratio for Trinidad and Tobago is equal to the ratio of its total value of exports for a given year to that of its total imports. The total value of its exports are equal to 100,000 and that of its imports to 200,000 so that the coverage ratio equals to 100,000/200,000= 50%. In other words, Trinidad and Tobago's merchandise exports cover or 'can finance' half of its merchandise imports.

Export composition indicator. This indicator shows the bias in the nature of the goods exported. That is whether the goods exported are mostly agricultural, manufacturing, based on factor endowments or advances in technology. The export composition indicator for agricultural exports is equal XCIa= Xia/Xit*100, where XCIa is the export composition indicator for agricultural products (here denoted by a) and Xia and Xit equal the exports of reference country i of agricultural products and the total exports of reference country a. Let Xia be the exports of Trinidad and Tobago of agricultural products and Xit the total exports of Trinidad and Tobago. Xia is equal to 5 000 million dollars and Xit is equal to 100,000 million dollars. XCIa is equal to (5,000/100,000)*100 = 5%. This result means that in the case of Trinidad and Tobago, agricultural products represents 5% of its total exports.

Import composition indicator. This indicator shows the bias in the nature of the goods imported. That is whether the goods imported are mostly agricultural, manufacturing, based on factor endowments or advances in technology. The import composition

indicator for agricultural imports is equal MCIa= Mia/Mit*100, where MCIa is the import composition indicator for agricultural products (here denoted by a) and Mia and Mit equal the imports of reference country i of agricultural products and the total imports of reference country a. Let Mia be the exports of Trinidad and Tobago of agricultural products and Mit the total imports of Trinidad and Tobago. Mia is equal to 20,000 million dollars and Mit is equal to 200,000 million dollars. MCIa is equal to (20,000/200,000)*100 = 10%. This result means that in the case of Trinidad and Tobago, agricultural products represents 10% of its total imports. The user should note that the export and import composition indicators are meant to highlight trade specialization by product. As a result, in some cases and depending on the set of products that are defined by the user, these indicators may coincide with the export product or import product market share.

Export concentration ratio. This ratio shows the share of the first 10 commodities as a percentage of the total exported. It is equal XCRi= Xi10/Xit, where XCR is the export concentration ratio of reference country i. Xi10 and Xit denote the first 10 and the total exports of reference country i respectively. If in the case of Trinidad and Tobago, the value of the first ten export products (Xi10) is equal to 90,000 and the value of its total exports is equal to 100,000, the export concentration ratio is equal to (90,000/100,000)*100= 90%. This indicator shows that in the case of Trinidad and Tobago the first ten export products account for 90% of the country's total exports.

Import concentration ratio. This ratio shows the share of the first 10 commodities as a percentage of the total imported. It is equal MCRi= Mi10/Mit, where MCR is the export concentration ratio of reference country i. Mi10 and Mit denote the first 10 and the total exports of reference country i respectively. . If in the case of Trinidad and Tobago, the value of the first ten import products (Xi10) is equal to 85,000 and the value of its total exports is equal to 200,000, the export concentration ratio is equal (85,000/200,000)*100= 42.5%. This indicators shows that in the case of Trinidad and Tobago the first ten import products represent 42.5% of the country's total imports.

Comparative advantage indicator. Comparative advantage is measured by a product specialization index. It is defined as the product share for a given partner country divided by the product share for all countries. It is equal to: CAI = (Mijk/Mijt)/(Mik/Mit) where CAI is the comparative advantage indicator; Mijk refers to the imports of reference country i from partner country j; Mijt refers to the imports of reference country i from country j; Mik refers to the imports of country i of product k; Mit refers to the total imports of country i. The comparative advantage indicator shows how may more times, on average, does reference country i import product k from partner country j than from the rest of the world. That is a comparative advantage indicator of 100 means that reference country i imports product k from country j a hundred more times than from the rest of the world on average.

Following the example of Trinidad and Tobago, let,

Mijk = the imports of Trinidad and Tobago of food products from CARICOM. Mijk is equal to 15,000 million dollars.

Mijt = the imports of Trinidad and Tobago from CARICOM. Mijt is equal to 30,000 million dollars.

Mik = the imports of Trinidad and Tobago of food products. Mik is equal to 20,000 milliond dollars.

Mit = the total imports of Trinidad and Tobago. Mit is equal to 200,000 million dollars.

The comparative advantage indicator is equal to,

(Mijk/Mijt)/(Mik/Mit) = (15,000/30,000)/(20,000/200,000) = 0.5/0.1= 5. The result (5) means that the imports of food products of Trinidad and Tobago from CARICOM countries represents five times the imports of food products of Trinidad and Tobago from the rest of the world.

Constant Shares Analysis. Constant shares analysis refers to a decomposition of imports into a demand effect, a structural effect and an interaction effect. Constant shares analysis is carried out for time period specified by the user with a base and a final year. The demand effect is the change in import value that would have resulted should the country share have remained constant from the base period. Under that condition, the change in import value would be the exclusive result of a change in the global import value of the product.

The share effect can be interpreted as the change in import value that would have resulted, should the global import value of the product have remained constant from the base period. In that case the change in import value would be the exclusive result of a change in the country share for the product.

The interaction effect reflects the combination of the demand and share effects. Both the demand and the interaction effect can be split up in a global and a structural component. In both cases the global component represents the change that would have occurred should global demand for the product have undergone the same changes as total global demand. The structural demand effect reflects the degree to which the dynamics of demand for the product differs from the dynamics of the demand for all products.

The demand effect denoted by DE is equal to = (Mijk0/Mik0)*(Mik1-Mik0) where, Mijk0 = import value of country i from country j for product k for the base year (In the formula 0 and 1 denote the base and the final year respectively). Mik0 = import value of country i of product k in the base year 0. Mik1 = import value of country I of product k in the final year 1.

The global demand effect is denoted by GDE and is equal to = Mik0 *((Mit1/Mit0) –1) Where, Mik0 is equal to the imports of reference country i of product k in base year 0. Mit0 is equal to the total imports of reference country i in the base year 0. Mit1 is equal to the total imports of reference country i in the final year 1.

The structural demand effect is denoted by SDE and is equal to

= Mijk0 ((Mijk1/Mijk0)-(Mit1/Mit0)
where,
Mijk0 = imports of reference country i of product k from partner country j in base year 0.
Mijk1 = imports of reference country i of product k from partner country j in final year 1.
Mit0 = total imports of reference country i in base year 0.
Mit1 = total imports of reference country i in final year 1.

The share effect is denoted by SE and is equal to
= (Mijk1/Mik1)-(Mijk0/Mik0)*Mik0
where,
Mijk0 = imports of reference country i of product k from partner country j in base year 0.
Mijk1= imports of reference country i of product k from partner country j in final year 1.
Mik1 = imports of reference country i of product k in final year 1.
Mik0 = imports of reference country i of product k in final year 0.

The interaction effect is denoted by IE and is equal to:
= ((Mijk1/Mk1)-(Mijk0/Mik0))*(Mik1-Mik0) where,

Mijk0 = imports of reference country i of product k from partner country j in base year 0.
Mijk1= imports of reference country i of product k from partner country j in final year 1.
Mik1 = imports of reference country i of product k in final year 1.
Mik0 = imports of reference country i of product k in final year 0.

The global interaction effect is denoted by GIE and is equal to:

((Mijk1/Mk1)-(Mijk0/Mk0))*((Mit1-Mit0)*(Mik0/Mit0) where,

Mijk0 = imports of reference country i of product k from partner country j in base year 0.
Mijk1= imports of reference country i of product k from partner country j in final year 1.
Mik1 = imports of reference country i of product k in final year 1.
Mik0 = imports of reference country i of product k in final year 0.
Mit1 = total imports of reference country i in year 1.
Mit0 = total imports of reference country i in year 0.

Product qualification. The concept of product qualification is taken form the methodology of the Competitive Analysis of Nations software developed by ECLAC. Its purpose is to relate the evolution of a country's product shares with the dynamics of the product in global imports (of the reference country). The idea underlying the index is that it is preferable to have an increasing country share in products whose relative importance

in the imports of the reference country is growing (Rising Stars) than in products with declining importance (declining stars). Likewise, declining country shares in dynamic products (missed opportunities) are considered worse than declining country shares in products losing relative importance (retreats). (See Table 1 below).

Table 1
Product Qualification

		Country share	
		Increasing	Decreasing
Relative importance of product in the import market of the reference country	Increasing	Rising Star A rising star satisfies two conditions Mijk1>Mijk0 And Mik1>Mik0	Missed Opportunity A missed opportunity satisfies two conditions Mijk1>Mijk0 And Mik1<Mik0
	Decreasing	Declining Star A declining star satisfies two conditions Mijk1< Mijk0 And Mik1>Mik0	Retreat A retreat satisfies two conditions Mijk1< Mijk0 And Mik1<Mik0

Note:
Mijk0= imports of reference country i of product k from partner country j in base year 0.
Mijk1 = imports of reference country i of product k from partner country j in final year 1.
Mik1 = imports of reference country i of product k in final year 1.
Mik0 = imports of reference country i of product k in final year 0.

Intraregional trade share ratio. It is defined as the ratio of intraregional exports or imports divided by total exports or imports. Defined is terms of imports the intraregional trade ratio (IRTR) is equal to = Mij/Mit*100 where,
Mij= imports of reference country i from partner country j.
Mit= total imports of reference country i.

Let Mij be the imports of Trinidad and Tobago from CARICOM and Mit its total imports. Mij and Mit are equal to 30,000 and 200,000 million dollars respectively. The intraregional trade share ratio is equal to (30,000/200,000)*100= 15%. That is, CARICOM represents 15% of Trinidad and Tobago's total imports.

Intraregional trade intensity index. It is defined as the share of the partner's country j in intraregional imports divided by the share of reference country i in world or regional imports.1 A value greater than unity indicates a regional bias in trade. The intraregional trade intensity index (ITII) is equal to = (Mij/Mit)/(Mit/Mw) where,

Mij= imports of reference country i from partner country j.
Mit= total imports of reference country i.
Mw = world imports.

When (Mij/Mit) equals (Mit/Mw) the index will have a value of unity indicating that the share in intraregional trade is equal to the share in world trade. A value greater than one implies a regional bias in trade.

Index of the propensity to trade intra-regionally. It measures the ratio of intra-regional exports to GDP divided divided by the share of the partner country in world trade. The index of the propensity to trade intra-regionally (IPTIR) is equal to
= (Xij/GDPi)* ITII where,
Xij = exports of reference country i to partner country j.
GDPi = gross domestic product of country i.
ITII = the intraregional trade intensity index (ITII)

The ratio (Xij/GDP) measures the degree of openness of an economy. The higher is the ratio (Xij/GDP) the more open is an economy. The openness of an economy offsets any increase in the trade intensity ratio. The higher the ratio the higher is the propensity to trade intraregionally.

Index of trade orientation. It is defined as the ratio of the intraregional trade share of a given commodity divided by the extraregional trade share of the same commodity. When the index of trade orientation is greater (less) than 1, there is a greater (lower) orientation to trade the commodity intraregionally than extraregionally. To compute the index it is necessary to define a given geographical region to obtain intraregional and extraregional imports (or exports).
The index of trade orientation (ITO) is equal to=

(Mijk/Mitr)/(Mike/Mite) where,

Mijk = imports of reference country i from partner country j (that forms part of the region) of product k.
Mitr = imports of reference country i from the region r.
Mike = extraregional imports by country i of product k.

This indicator can vary between 0 and infinity. It is equal to 1 if the share of a given product in intraregional trade is equal to its share in extraregional trade. When ITO is greater (less) than 1 the product has a greater propensity to be trade intraregionally than extraregionally. A value greater than 1 may indicate trade deviation in favour of the regional bloc. A given product is more competitive within a regional bloc than outside a regional bloc. This may indicate that the regional bloc is creating the conditions for the product to be traded intraregionally.

Intraregional trade prevalence ratio. This indicator is the ratio of extraregional exports of a product or set of products over total extraregional exports (which measures the prevalence of trade in that product at a regional level) divided by the world exports of that product over total world exports (which measures the prevalence of trade in that product in the world market). The indicator will be greater than one when the intraregional trade prevalence exceeds the extraregional trade prevalence. In other words there is a bias for intraregional trade in that product.

The intraregional trade prevalence ratio (ITPR) is defined as (Mike/Miket)/(Mwk/Mw) where,

Mike = extraregional imports by country i of product k.
Miket = total extraregional imports
Mwk = world imports of product k
Mw = total world imports

The ITPR shows the correspondence of intraregional trade of a given product and its world trade. When (Mike/Miket) > (Mwk/Mw), there is a bias for intraregional trade and the product is not competitive in external markets.

5-2 A Tutorial Guide to CARIBTRADE trade indicators

CARIBTRADE provides the user with eight trade indicator sub-modules. These are:

- Trade summary
- Trade by product
- Analysis of imports and exports
- Top imports and exports
- Indicators summary
- Indicators by products
- Regional indicators

5.2.1 Trade summary

This sub-module provides the user with the total import and export value or volume for any of the member states included in the trade data base. In the case of most member states data is available for the period 1995 to 2001. Assume the user would like to obtain the total imports in value terms of Barbados for 1995 to 2001. To get this result follow these steps in sequential ordering: (i) select the period 1995-2001; (ii) chose imports value under the heading imports/exports; (iii) select Barbados under the heading reference country; (iv) press the submit option. The program provides a table showing the value of imports of Barbados for the period 1995 to 2001. In 2001, the total imports of Barbados were 5,645,963,569 US$ dollars (See Table 2).

Table 2 Barbados Total Imports 1995 – 2001	
Year	Value of imports
1995	605,606,932
1996	674,011,135
1997	767,005,764
1998	872,324,735
1999	935,443,077
2000	962,793,552
2001	894,191,978
Total	5,645,963,569

In the same vein the user can follow exactly the same steps to obtain the value of total exports, say, from the Netherlands Antilles for 1995 to 2001. That is (i) select the period 1998-2001; (ii) chose exports value under the heading imports/exports; (iii) select Curacao under the heading reference country; (iv) press the submit option. Note that in this case the results show data only for the period 1998 to 2001 indicating that data is not available for the years 1995 to 1997. In this case the value of total exports of the Netherlands Antilles equals 518, 089, 794 US dollars (See Table 3 below).

Table 3 Netherlands Antilles Total Exports 1995 – 2001	
Year	Value of exports
1998	199,626,563
1999	191,844,918
2000	66,579,104
2001	60,039,209
Total	518,089,794

Export and import volume are given in Kgs. The user can obtain export volume simply by choosing the option export (volume) or import (volume) under the heading import/export select. Having access to export and import data in both value and volume terms allows the user to ascertain, to a certain degree, if an increase (decrease) in imports and/or exports is due to a increase (decrease) in volume or in price. As an example Trinidad and Tobago shows a marked increase in its export value from 262 to 2,300 million dollars between 1998 and 1999. However, this increase in export value (778%) is not matched by that of export volume (33%) indicating most likely an increase in Trinidad and Tobago's export prices (See Table 4 below).

Table 4 Trinidad and Tobago Total exports in volume and value 1995 – 2001		
Year	Volume of exports	Value of exports
1995	13,022,812,844	332,762,962
1996	12,544,862,934	216,674,809
1997	12,994,355,797	344,866,630
1998	15,599,406,109	262,828,186
1999	20,037,736,281	2,300,549,485
2000	20,158,928,256	4,008,103,938
2001	23,005,961,211	2,923,365,844
Total	117,364,063,432	10,389,151,854

5.2.2. Trade by product

This option shows the imports or exports in value or volume of any country included in the trade data base by product. The user specifies the time period, the level of product disaggregation (1, 2 or 3 digits using the SITC description or at the 2-digit level using the HS), the product or set of products, and whether the results should be presented in value or volume.

Assume the user wants to know the composition of the value of exported products of Barbados from 1995 to 2001 at the 1 digit SITC. The steps to follow are: (i) select the period 1995 to 2001; (ii) select the 1-digit level of disaggregation; (iii) select Barbados as a reference country and (iv) select all the products (v) submit query. The program provides the user with the information shown in Table 5 below.

Table 5
The value of imports of Barbados by 1 digit-product level category
1995 -2001

	1995	1996	1997	1998	1999	2000	2001
0.Food and live animal...	$68,401,650	$105,477,162	$63,131,221	$52,823,206	$41,492,778	$60,560,723	$131,130,248
1.Beverages and tobacc...	$9,731,466	$23,051,765	$12,270,718	$13,762,529	$7,458,603	$10,001,238	$5,830,730
2.Crude materials exce...	$10,661,228	$22,856,714	$25,240,400	$4,936,407	$9,896,250	$43,556,440	$100,870,150
3.Minerals, fuels, lub...	$2,031,548	$1,059,412	$1,497,273	$5,296,895	$2,294,487	$2,971,605	$11,442,802
4.Animal and vegetable...	$621,806	$1,066,934	$270,982	$5,128,018	$3,552,650	$1,229,553	$1,832,292
5.Chemicals...	$55,518,036	$83,183,529	$54,140,801	$52,725,877	$52,976,793	$85,733,251	$120,158,634
6.Manufactured goods c...	$144,827,085	$136,806,294	$179,944,814	$222,021,883	$185,764,456	$180,669,860	$309,672,479
7.Machinery and transp...	$184,579,325	$182,470,355	$190,975,397	$172,253,339	$268,608,195	$338,078,701	$236,973,839
8.Miscellaneous manufa...	$122,201,668	$113,418,301	$218,637,424	$209,162,297	$239,363,835	$200,375,431	$207,195,798
9.Commodities and tran...	$7,033,120	$4,620,669	$20,896,734	$25,374	$977,525	$428,452	$106,115
Total	$605,606,932	$674,011,135	$767,005,764	$738,135,825	$812,385,572	$923,605,254	$1,125,213,087

Table 5 shows that Barbados imported 309 million dollars worth of manufactured goods in 2001 which represents and increase over 100% with respect to the year 1995 for that product. Two other major import products of Barbados are machine and transportation (236 million dollars in 2001) and miscellaneous manufactures (207 million dollars in 2001).

Using a simple arithmetic operation the user can obtain the share of these products as a percentage of total imports. It is easily seen, as shown in Table 6 below, that manufactured goods, machinery and transportation represent and chemicals represent more than 50% of Barbados imports.

Table 6
The value of imports of Barbados by 1 digit-product level category as a percentage of the total
1995 -2001

	1995	1996	1997	1998	1999	2000	2001
0.Food and live animal...	11.29	15.65	8.23	7.16	5.11	6.56	11.65
1.Beverages and tobacc...	1.61	3.42	1.60	1.86	0.92	1.08	0.52
2.Crude materials exce...	1.76	3.39	3.29	0.67	1.22	4.72	8.96
3.Minerals, fuels, lub...	0.34	0.16	0.20	0.72	0.28	0.32	1.02
4.Animal and vegetable...	0.10	0.16	0.04	0.69	0.44	0.13	0.16
5.Chemicals...	9.17	12.34	7.06	7.14	6.52	9.28	10.68
6.Manufactured goods c...	23.91	20.30	23.46	30.08	22.87	19.56	27.52
7.Machinery and transp...	30.48	27.07	24.90	23.34	33.06	36.60	21.06
8.Miscellaneous manufa...	20.18	16.83	28.51	28.34	29.46	21.69	18.41
9.Commodities and tran...	1.16	0.69	2.72	0.00	0.12	0.05	0.01
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The same exercise can be performed for exports in value of volume terms at a different level of disaggregation. The user can try to obtain the major export products in volume of Guyana for 2001 at the two digit SITC level (Hint: the most important export product of Guyana for 2001 is metalliferous ores which represents 63% of its total external sales. Metalliferous ores has a 2 digit SITC classification of 28).

5.2.3. Analysis of imports and exports

This sub-module provides the user to analyse trade by product and trading partner. Products are grouped by SITC and HS at the 1 to 3 digit level and the 2 digit level respectively. Trading partners are shown at the country or regional grouping level (the regional groups include Central America (SICA), Mercosur, Andean Community, OECS, CARICOM, CAFTA and the European Community). The program makes the distinction between a regional group as such and the group of individual countries belonging to a regional group. In the former case the results are shown for the regional group at the aggregate level. In the latter case the output shows the disaggregation by member country of a given regional group.

Assume the user wants to know the imports of the British Virgin Islands from Central America at the aggregate level and by Central American country. To this end the

user must:(i) select the period 1995-2001, (ii) select the reference country, British Virgin Islands (iii) select the level of disaggregation; (iv) select partner country; (v) select imports in value; (vi) submit query.

Note again that in selecting the partner country which in this case is Central America (SICA) there are two options. The first option is SICA (Central American Integration System) and the second option is SICA Countries. The first option will show Central America as an aggregate and the second option will show the results by Central America countries. Assume that the user selects the first option. The results are presented in Table 7 below. In this particular case data is available only for the years 1996, 1997 and 1998. For these three years the British Virgin Islands imports from Central America totaled 159 million dollars. The most important import product is food and live animals, which represents 83% of the total.

Table 7
British Virgin Islands
Imports from Central America

	1996	1997	1998	Total
0.Food and live animal...	-	$130,945,163	$941,913	$131,887,076
1.Beverages and tobacc...	-	$277,939	$13,661	$291,600
2.Crude materials exce...	-	$200,241	$44,069	$244,310
3.Minerals, fuels, lub...	$8,219	$34,640	$587,692	$630,551
4.Animal and vegetable...	-	-	$336,752	$336,752
5. Chemicals	$375	$15,446	$922,968	$938,789
6. Manufactured goods	$93,385	$595,185	$2,176,092	$2,864,662
7. Machinery and transportation	$188	$254	$16,845,531	$16,845,973
8. Miscellaneous manufactures	$150,543	$71,358	$2,654,034	$2,875,935
9. Commodities and transportation	$185,537	$2,072,345	$15,327	$2,273,209
Total	$438,247	$134,212,571	$24,538,039	$159,188,857

Table 8 shows the imports of the British Virgin Islands by product by Central American trade partner. The results demonstrate that the British Virgin Island only reports trade with Honduras and Panama. Panama is the main Central American trading partner of the British Virgin Islands representing 98% of the total trade with Central America. Honduras accounts for the rest, that is, for 3% of total imports from Central America. Since the main import commodity is food and live animals and the major provider is Panama, which does not have a significant agricultural sector, it can be speculated that food and live animals represent a re-export of Panama.

A similar exercise can be undertaken at a different level of disaggregation and using export or import volumes instead of values. As an example the user may want to know what are the export products in volume from St. Kitts and Nevis to the European Community, for the years 2000 and 2001, at the two digit SITC level. The steps to follow are to:(i) select the period 1995-1997, (ii) select the reference country, St. Kitts and Nevis (iii) select the level of disaggregation; (iv) select partner country which in this case is European Countries; (v) select exports in volume; (vi) submit query.

Table 8 British Virgin Islands Imports from Central America by Central American country					
Product	Trade Partner	Period			
0.Food and live animal...		1996	1997	1998	Total
	Honduras	-	-	$374,902	$374,902
	Panama	-	$130,945,163	$567,011	$131,512,174
1.Beverages and tobacc...					
	Honduras	-	-	$13,413	$13,413
	Panama	-	$277,939	$248	$278,187
2.Crude materials exce...					
	Honduras	-	-	$44,064	$44,064
	Panama	-	$200,241	$5	$200,246
3.Minerals, fuels, lubricants					
		$8,219	-	-	$8,219
	Panama	-	$34,640	$549,261	$583,901
4.Animal and vegetable oils					
	Honduras	-	-	$317,905	$317,905
	Panama	-	-	$18,847	$18,847
		-	-	$336,752	$336,752
		-	-	$336,752	$336,752
5.Chemicals...					
	Honduras	-	-	$393,090	$393,090
	Panama	$375	$15,446	$529,878	$545,699
6.Manufactured goods c...					
	Honduras	-	-	$1,606,211	$1,606,211
	Panama	$93,385	$595,185	$569,881	$1,258,451
7.Machinery and transportation					
		-	$254	-	$254
	Honduras	-	-	$642,723	$642,723
	Panama	$188	-	$16,202,808	$16,202,996
8.Miscellaneous manufactures					
		$15	-	-	$15
	Honduras	-	-	$186,595	$186,595
	Panama	$150,528	$71,358	$2,467,439	$2,689,325
9.Commodities and transportation					
	Honduras	-	-	$7,947	$7,947
	Panama	$185,537	$2,072,345	$7,380	$2,265,262
Total					
		$8,234	$254	-	$8,488
	Honduras	-	-	$3,625,281	$3,625,281
	Panama	$430,013	$134,212,317	$20,912,758	$155,555,088
	Total	$438,247	$134,212,571	$24,538,039	$159,188,857

As the user can ascertain form carrying out this exercise, the main export product in volume terms .to the European Community at the two SITC digit level is Sugar and Sugar Preparations, which represents more than 90% of the total exported. In 2000 and 2001, sugar and sugar preparations reached 12,280,988 and 14,037,622 kgs and the total volume exported for each of these years was, 12, 294,855 and 14,085,541 kgs.

5.2.4. Top import and exports

This sub-module provides the list by member country of the major imports and exports in value or volume by product code (1 to the 3 digit level using the SITC and 2 digits using the HS) from 1995 to 2001 (when the data availability permits) and ordered

according to a base year. Assume the user seeks to obtain, at the most general level, the major exports products of Jamaica in value terms using 1998 as the base year. The user must: (i) select the period 1995-2001, (ii) select Jamaica as the reference country (iii) select 1998 as the base year; (iv) select the product code which in this case is the most aggregated one (the one providing the information at the most general level); (v) select exports in value terms; (vi) submit query.

Table 9 shows the output of this query. Crude materials except fuels, is the major export product in 1998 followed by food and live animals (685 and 234 million US$ dollars). In this case changing the base year say from 1998 to 2001 would not alter the order of these two main products. Other products however would modify their standing. The product mineral, fuels, lubricants and related materials is a case in point. This product ranking as number 8 when 1998 is chosen as the base year rises to number 6 when 2001 is chosen as the reference year.

Table 9
Main export products of Jamaica in value terms
1995-2001
1998 as the reference year

SITC (1 digit code)	**Period**						
	1995	1996	1997	1998	1999	2000	2001
Crude materials except fuels. (54.52% - 54.52%)	$625,345,144	$731,520,447	$712,889,341	$684,629,219	$682,690,910	$729,567,226	$738,965,596
Food and live animals. (18.61% - 73.12%)	$223,913,570	$300,070,922	$257,389,768	$233,638,722	$238,220,538	$222,060,102	$222,754,112
Miscellaneous manufactured goods. (16.49% - 89.61%)	$261,064,820	$276,100,565	$227,975,424	$207,077,600	$163,761,339	$153,518,780	$94,389,747
Beverages and tobacco. (5.74% - 95.35%)	$37,751,300	$49,540,966	$51,562,423	$72,065,085	$55,804,818	$59,026,043	$48,184,217
Chemicals. (3.59% - 98.94%)	$40,049,323	$48,004,879	$41,575,969	$45,024,596	$45,767,326	$66,963,887	$65,469,208
Manufactured goods classified chiefly by materials. (0.55% - 99.48%)	$13,306,151	$14,254,214	$8,345,958	$6,848,113	$6,310,973	$6,733,163	$5,921,162
Machinery and transport equipment. (0.29% - 99.77%)	$3,041,749	$3,495,187	$3,970,382	$3,621,259	$1,632,551	$974,512	$1,131,067
Minerals, fuels, lubricants and related materials. (0.23% - 100.00%)	$7,245,220	$5,026,175	$3,131,410	$2,836,663	$3,495,601	$3,691,789	$14,344,095
Animal and vegetable oil and fats. (0.00% - 100.00%)	$733,222	$27,033	$17,486	$33,520	$31,959	$53,866	$53,988
Total	$1,212,450,499	$1,428,040,388	$1,306,858,161	$1,255,774,777	$1,197,716,015	$1,242,589,368	$1,191,213,192

5.2.5. Summary Indicators

This sub-module gives the balance of trade, the coverage ratio, the import/export market share and the composition of imports and exports for any reference member country and any other trade partner from 1995 to 2001 (when the availability of the data permits).

The balance of trade is, as indicated in section 5.1, the difference between exports and imports and it is expressed in value terms. To obtain, say the balance of trade between Belize and CAFTA countries for 1995-2001, the user must: (i) select the balance of trade as the summary indicator; (ii) select 1995 –2001 as the time period; (iii) select CAFTA as the trade partner; (iv) submit query. Note once again that, when the trade partner is a regional grouping, the results can be shown for the regional grouping at the aggregate level (CAFTA) or disaggregated by member country (CAFTA countries). In

this particular case Belize has a trade deficit with the CAFTA grouping which has increased from 3 to 10 million dollars between 1995 and 2001.

Table 10 Balance of merchandise trade between Belize and the CAFTA grouping						
1995	1996	1997	1998	1999	2000	2001
($3,018,012)	($3,940,069)	($3,660,733)	($3,813,091)	($7,020,739)	($11,852,074)	($10,921,209)

The coverage ratio, which is the ratio of merchandise exports to imports is another way to look at the relationship between exports and imports. The ratio reflects what percentage of imports are covered, or more to the point, financed by exports. In this particular case the exports of Belize to CAFTA are never able to finance more than 0.17% of its imports from CAFTA. In other words, more than 99% of Belize's import payments, are not financed from the earnings of its external merchandise sales to CAFTA.

Table 10 Coverage ratio Belize and the CAFTA grouping In percentage						
1995	1996	1997	1998	1999	2000	2001
0.01	0.00	0.06	0.17	0.04	0.02	0.00

The export country market share is a direction of trade indicator. It answers to the question: what does a given partner country represent for the exports of a reference country? Or to take a concrete example: what does the United States represent for Barbados total exports during the period 1995 to 2001? To answer this question the user must: (i) select export country market share indicator; (ii) select the period 1995 to 2001; (ii) select Barbados as the reference country; (iii) select the United states as a trade partner; and (iv) submit the query. The same exercise can be performed for the exports of Barbados to the United Kingdom and also CARICOM. The results are shown in Table 11 below, which is constructed on the basis of the information provided by the data base.

Table 11 Barbados Direction of trade (exports as a percentage of the total) 1995 - 2001			
Years	United States	United Kingdom	Caricom
1995	17.82	19.00	44.51
1996	14.71	19.46	39.54
1997	16.55	22.16	40.07
1998	17.34	20.28	47.21
1999	19.28	16.81	48.61
2000	19.14	16.54	49.86
2001	17.78	16.10	48.02

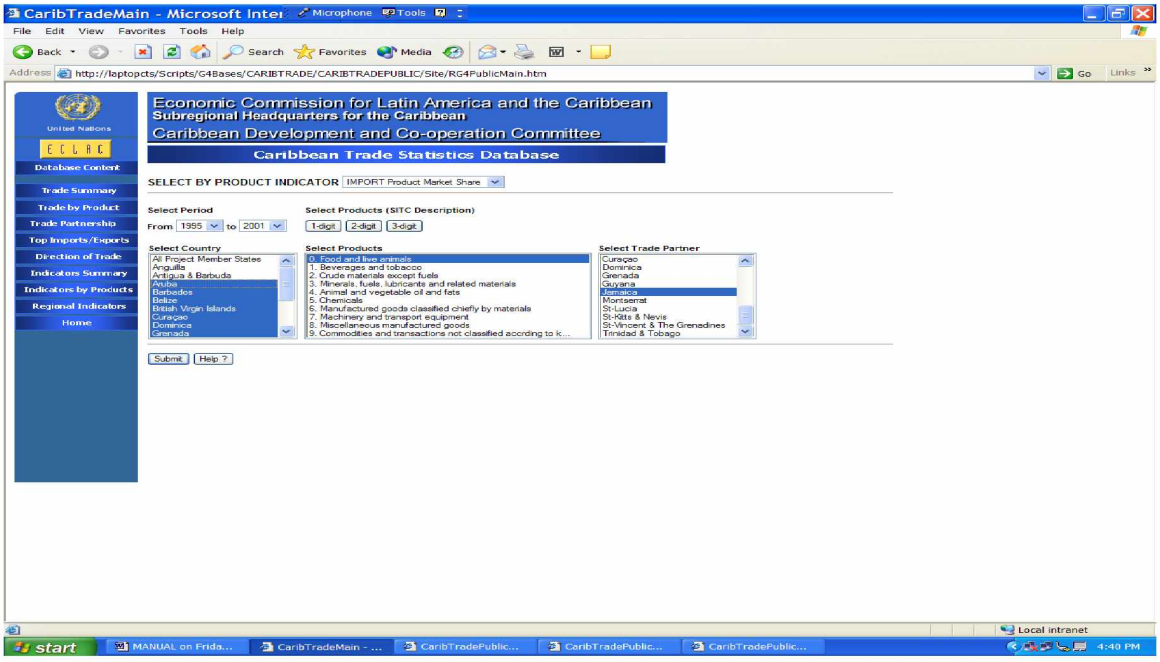
As shown in Table 11, in 2001, 18% and 16% of Barbados total exports were destined to the United States and the United Kingdom. By contrast 48% (that is close to half of Barbados exports) found their way to CARICOM.

The user can carry out a similar exercise for Barbados imports. Using the trade indicators as shown above, the user should conclude that in 2001 11.6%, 9.18% and 45.94% of Barbados total imports had their origins in CARICOM, the United Kingdom and the United States.

The export and import composition indicators show the structure of exports and imports of a reference to and from a selected trade partner. To obtain the export structure of Barbados to the United States for the period 1995 to 2001, the user must: (i) select export composition indicator; (ii) select the period 1995 to 2001; (ii) select Barbados as the reference country; (iii) select the United states as a trade partner; and (iv) submit the query.

5.2.6. Indicators by products

This sub-module shows the composition of imports and exports by reference and trade partner country for the period 1995-2001 (provided data is available) for the different levels of disaggregation and products codes provided by Caribtrade (SITC from 1 to 3 digits and HS at the 2 digit level). This sub-module is shown in the figure below.



As an example the user may want to know what St. Lucia exports and imports to and from the European Community and what each of the products exported and imported represents as a percentage of the total. To this end the user must: (i) select the import product market indicator; (ii) select 1995 to 2001 as the period; (iii) select the product

code; (iv) selects the products; (v) select the trade partner which in this case id the European Community; (vi) submit query. Assume that the idea is to obtain a general picture of the export and import structure of St. Lucia to and from the European Community and that as a result the user works with the product code SITC (1) and select all the available products. In order to obtain the export structure the same steps must be repeated for the export product market share indicator. The results are shown in Table 12 below.

Tab le 12
The composition of St. Lucia's imports to the European Community
1995- 2001

	1995	1996	1997	1998	1999	2000	2001
0.Food and live animal...	21.36%	19.39%	17.81%	16.80%	17.19%	15.99%	14.12%
1.Beverages and tobacc...	28.28%	23.70%	19.34%	19.62%	19.54%	16.36%	19.69%
2.Crude materials exce...	2.25%	2.29%	1.53%	1.73%	2.51%	1.50%	0.85%
3.Minerals, fuels, lub...	0.19%	0.31%	0.13%	0.35%	0.14%	0.09%	0.34%
4.Animal and vegetable...	7.49%	4.25%	1.36%	11.58%	7.56%	8.34%	8.39%
5.Chemicals...	11.74%	13.41%	15.32%	12.04%	12.22%	12.35%	10.65%
6.Manufactured goods c...	13.60%	13.28%	14.49%	15.62%	13.45%	11.19%	10.92%
7.Machinery and transp...	18.36%	19.79%	22.88%	22.03%	13.60%	20.28%	17.08%
8.Miscellaneous manufa...	12.96%	12.25%	11.59%	13.81%	15.11%	12.51%	14.13%
9.Commodities and tran...	7.27%	10.04%	8.33%	5.53%	8.48%	6.27%	14.45%

Note that the results are ordered by product code. The results show several interesting features about the evolution of St. Lucia's imports from the European Community. Food and animals, beverages and tobacco lost market share between 1995 and 2001. Food and animals represented 21% of St. Lucia's imports from the European Community in 1995 and declined to 14% by 2001. In a similar way Beverages and Tobacco represented 28.28% of St. Lucia's imports from the European Community in 1995 and their share decreased 19.69% in 2001. At the same time most of the other product groups managed to maintain their market share. These include, animal and vegetables oils, chemicals, manufactured goods, machinery and transportation and miscellaneous manufactures. Finally, the group commodities and transactions not classified is the only commodity group that increased its market share significantly (7.27% and 14.45% of the total in 1995 and 2001).

In contrast to the import composition, the export structure is markedly concentrated towards food and live animals which represent over 95% of St. Lucia's exports to the European Community for the whole period under consideration. The rest of the group categories are for the most par insignificant (See Table 13, below).

Tab le 13
The composition of St. Lucia's imports to the European Community
1995- 2001

	1995	1996	1997	1998	1999	2000	2001
0.Food and live animal...	97.37%	98.48%	97.74%	97.82%	96.97%	94.79%	94.91%
1.Beverages and tobacc...	3.28%	0.04%	0.02%	0.17%	0.21%	0.04%	0.75%
2.Crude materials exce...	42.11%	2.12%	41.52%	0.02%	0.02%	9.05%	4.53%
3.Minerals, fuels, lub...	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4.Animal and vegetable...	0.00%	-	0.00%	0.00%	0.00%	0.00%	0.00%

5.Chemicals...	0.68%	0.15%	1.07%	0.08%	2.13%	1.34%	2.64%
6.Manufactured goods c...	2.84%	5.46%	3.80%	0.75%	3.35%	0.48%	0.96%
7.Machinery and transp...	4.04%	3.02%	4.64%	2.17%	5.49%	3.34%	4.91%
8.Miscellaneous manufa...	11.31%	14.05%	17.48%	14.31%	10.97%	6.02%	5.13%
9.Commodities and tran...	0.59%	0.37%	0.37%	0.00%	0.00%	14.52%	0.22%

In order to ensure the most effective comprehension, the user should carry a similar exercise at more detailed level of disaggregation and for regional groupings at the aggregate level and by its member countries. As an example the user may want to answer the question: what is the composition of imports and exports of St. Lucia to the rest of the OECS member states at the aggregate level and by member state?.

5.2.7. Intra-regional indicators

This sub-module seeks to provide indicators to gauge export and import performance at the regional level, that is indicators to capture trade between members of the project trade data base. At the present stage, only two indicators are included in the trade database. These are the intraregional import market share ratio and the intraregional export market share ratio. Both indicators are computed for selected products following the given product codes (SITC from 1 to the 3 digit level and the HS at the 2 digit level).

The intraregional import market share ratio shows the percentage of selected product imports of a project member state from a project member trade partner. In the same way the intraregional export market share ratio shows the percentage of selected product exports of a project member state from a project member trade partner. Within this sub-module there are two sub-regional groupings CARICOM and the OECS. As in the other sub-modules the data for these can be obtained at the aggregate level or by member country.

Assume the user wants to obtain the intraregional import market share ratio for Barbados from the OECS countries as a regional group for 1995 to 2001. To obtain the desired information the user must: (i) select the intraregional market share ratio indicator; (ii) select the period from 1995 to 2001; (iii) select the product code; (iv) select the reference country which in this case is Barbados; (v) select the products; (vi) select the trade partner which in this case is the OECS group; (v) submit query. Assume the user decides to work at the SITC 2 digit level and selects the first six product codes. The results are presents in Table 14 below.

Table 14
Imports of Barbados from the OECS as a percentage of the total
1995-2001

	1995	1996	1997	1998	1999	2000	2001
00.Live animals chiefly...	18.08%	12.59%	5.80%	11.29%	9.65%	0.96%	3.61%
01.Meat and meat prepar...	0.00%	5.45%	0.00%	16.39%	0.00%	0.00%	0.00%
02.Dairy products and b...	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
03.Fish, crustaceans an...	7.43%	7.77%	5.43%	5.32%	4.03%	3.93%	5.93%
04.Cereals and cereal p...	22.72%	28.82%	25.80%	26.48%	20.43%	22.35%	18.80%
05.Vegetables and fruit...	52.01%	51.61%	39.36%	39.75%	42.27%	39.71%	40.22%
06.Sugar, sugar prepara...	1.60%	4.13%	1.55%	1.82%	1.47%	1.93%	8.89%

The results show that for the selected products vegetables and fruit constitute the most important import of Barbados from the OECS representing 40% of the total. The next most important product is cereal and cereal preparations representing 19% of Barbados total imports from the OECS.

The user can repeat the exercise for the intraregional export market share ratio for Barbados to the OECS or carry out that exercise for Trinidad and Tobago with the CARICOM economies. Due to the fact that petroleum and petroleum products are a major export commodity with a very high export value relative to other traded products the user may wish to carry out the exercise excluding petroleum products out of the analysis.

Chapter 6

Transportation Statistics

6 -1 Data availability

The database also contains information on shipping statistics. These data were not held by every country although they are available. This has served to impair the usefulness of this subset of the database. Before the second round of data collection for the updated database, seminars addressing data quality will have been conducted with a view to receiving data of higher quality as well as to obtaining the transportation data that in most countries had not been captured by the Statistical Offices.

Chapter 7
Forming a CARIBTRADE users' group

7-1 The objective of a users' group

A users' group with a focus on the utility of the database created will serve to sustain interest in the database and encourage a better understanding of the REDATAM engine. A thorough familiarity with the engine will make the case for the creation of a REDATAM database standard in which the problem of a steep learning curve will be eliminated. The objective of on-line access will have been achieved and valuable human resources freed up at the Statistical Offices to devote to development work in other areas.

The users' group will comprise people who have an interest in the solutions that the software can offer and who will spend time exploring the package. The group will interact in a forum in which questions raised by a member can be discussed and answered by one or more members. This forum has the possibility of addressing technical challenges posed by the software. It will be a catalyst to the further development of REDATAM, very much in the same manner that "open source" software has developed.

The "open source" paradigm will create a lively support group and accelerate the sharing of tips, tricks and traps that will take the user public to a higher level of comprehension of and working with databases. At the same time, value added products will be developed and shared by the members of the user group. This enthusiasm should drive ECLAC to greater heights of product development and support.

Users interested in forming the group may use the contact button on the home page of CARIBTRADE to register their views.

ECLAC is pleased to provide this trade statistics database for use by a wide variety of users. It commends this user manual to its users and looks forward to a fruitful collaboration in the future support and further development of this software.

ECLAC registers once more its gratitude to the Kingdom of the Netherlands for having made the production of CARIBTRADE, the trade statistics database, possible.