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Integration *and trade* diversion

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Regional integration has once again become an important issue for Latin America and the Caribbean. Compared with previous experiences, however, recent integration commitments have a number of new aspects in such areas as negotiating procedures, the issues involved in the various agreements –some of which are as unprecedented as the adoption of common currencies, the creation of binational companies, common labour laws, etc.– and the actual timing of these steps. Among the various integration initiatives now being pursued, four are particularly important by virtue of the relative weight of the economies involved: MERCOSUR, the Andean Pact, the Central American Common Market (CACM) and the Caribbean Community (CARICOM). This article presents estimates for one of the possible outcomes of these four integration processes in terms of the resulting trade flows –within each country group and between each country and the rest of the world– on the basis of an arbitrarily defined criterion for estimating trade diversion, and goes on to discuss some of the resulting implications for integration policies and negotiating procedures.

I

Introduction

Regional integration is a long-standing issue in Latin America and the Caribbean, with early efforts in this area dating back to the late 1950s. The prospect of what was to become the Treaty of Rome (signed in 1957) led to a number of studies at the regional level to evaluate the possibility of fashioning a local replica of the then prospective effort to form a European Union.

A number of now well-documented problems (the practice of undertaking integration initiatives in parallel with efforts to deepen the industrial production structure, misconceived negotiating formulas, etc.) led to no more than piecemeal achievements in the following two decades, notwithstanding the strong official emphasis placed on the issue.

The situation changed somewhat in the late 1980s, when a number of commitments were made among groups of neighbouring countries which resulted in the formation of several subregional custom unions within a relatively short time span.

These commitments cover several new areas, including such topics as negotiating procedures, inherent problems associated with the various agreements—including some issues never tackled before, such as the adoption of common currencies, the creation of binational companies, common labour laws, etc.—and the actual timing of these steps.

Another feature common to a number of these initiatives is that they all look to the mid-1990s as a target date for the consolidation of integrated international structures.

Among the various integration initiatives now being consolidated, four are particularly important by virtue of the relative weight of the economies involved: (i) the Common Market of the South

(MERCOSUR), formed by Argentina, Brazil, Paraguay and Uruguay; (ii) the Andean Pact, composed of Bolivia, Colombia, Ecuador, Peru and Venezuela; (iii) the Central American Common Market (CACM), comprised of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua; and (iv) the Caribbean Community (CARICOM), made up of Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago (Bahamas does not participate in the Caribbean Common Market).

Successful integration efforts on the part of these four groups of countries may, of course, be expected to lead to larger intrazonal trade flows and to increased production within each group of goods designed to take the place of imports from third countries. The scale of such import substitution and its probable sectoral concentration are seldom examined in the related literature, however.

This article presents estimates of one of the possible effects of these four integration processes on the resulting trade flows, on the basis of an arbitrarily defined criterion for estimating trade diversion which makes it possible to analyse the probable changes in the trade flows within each country group and between each country and the rest of the world.

Section II gives a brief description of each of these four integration processes and presents basic data on pre-integration trade flows. Section III describes the basic assumptions made, and the methodology and data used. Section IV discusses the main findings, and section V speculates about these results and some of their possible policy implications.

□ The author wishes to thank Myriam Morris for her assistance in connection with the computational aspects of this article.

II

Four country groups in pursuit of integration

In recent years we have witnessed renewed efforts on the part of the Latin American and Caribbean countries to intensify their integration processes.

On the political front, one feature which sets these movements apart from previous integration initiatives is that those sponsoring them are democratically elected governments. On the economic plane, their simultaneous adoption of uniform liberalization policies has no precedent in the region and probably accounts for the novel aspects of these commitments to integration, which is no longer seen as a way of replacing imports from third countries, but rather as a means of enhancing the competitiveness of the member countries' exports and establishing fuller and closer links with the international economy. It is also the main reason why these integration initiatives' objectives and timing are so similar.

MERCOSUR was born in March 1991, when previous commitments between Brazil and Argentina to establish a common market were extended to include Paraguay and Uruguay. The target date for MERCOSUR's entry into operation was set at January 1995, and a similar time horizon was adopted by the countries of the Andean Group (under the Act of La Paz, signed in November 1990) and by the Caribbean countries, under an agreement signed in August of that same year. The year 1995 has also been chosen as the target date for the creation of an economic community among the Central American countries, in line with the Central American Economic Action Plan.

For the purposes of this analysis, the most important aspects to be explored here have to do with the (pre-integration) trade structure of the countries which are to make up these four free trade areas. The following paragraphs will provide an overview of the basic features of the intrazonal trade flows for these four country groupings in 1991. Detailed analysis at the product level could only be carried out on the basis of the most recent information available for this level of disaggregation, corresponding to 1989 in the cases of MERCOSUR and the Andean Pact and 1988 in those of CACM and CARICOM.

1. The Common Market of the South (MERCOSUR)

This is the largest of the four country groupings, with intrazonal exports in 1989 totalling US\$4 billion, as compared to nearly US\$1 billion for the Andean Pact and (in 1988) a little over US\$600 million for CACM and less than US\$200 million for CARICOM.

In all four country groupings, trade flows are quite concentrated, with the three main bilateral export flows accounting for well over half the total value of intrazonal exports. In MERCOSUR, bilateral trade between Brazil and Argentina and Brazilian exports to Uruguay represented 57% of total intrazonal trade in 1989.

Given the differences in the degree of openness and size of the economies involved, the relative importance of the intrazonal market varies sharply from country to country, although in all of them there are at least some sectors where that market accounts for more than half of the total value of sectoral exports (see table 1).

Clearly, the relative importance of the zonal market for, say, Paraguay and Uruguay is far greater than it is for Brazil. This is true not only in broad terms, but also for a number of specific industries: when the various industries were considered individually, it was found that the exporting sectors accounting for over one-third of the total value of Paraguay's exports sell more than half of their exports within MERCOSUR.

In view of the zonal market's limited importance for the main exporters, there would seem to be quite a significant margin for trade diversion, and the contribution made by intrazonal trade flows to the overall trade balance will obviously vary from one country to the next. Although all four countries participating in MERCOSUR had trade surpluses with the rest of the world, in 1989 Brazil and Uruguay were net importers in their intrazonal trade. (Trade balance figures are discussed in section IV, where a comparison is made between pre- and post-integration trade flows.)

TABLE 1

MERCOSUR: Some basic indicators

Country	Relative weight of zonal market in 1991 (%)		Sectors deriving over 50% of the total value of their exports from sales to MERCOSUR, 1989	
	Exports	Imports	Number of sectors ^a	Share of exports to MERCOSUR in total exports of the sector (%)
Argentina	16.06	12.75	44	3.1
Brazil	4.04	10.80	10	0.2
Paraguay	35.19	36.00	42	36.0
Uruguay	35.14	30.26	105	20.6

Source: International Monetary Fund (IMF), *Direction of Trade Statistics, Yearbook, 1992*, Washington, D.C., 1992, and estimates based on primary data from the ECLAC External Trade Data Bank for Latin America and the Caribbean (BADECEL).

^a Out of the 237 three-digit product groups contained in the Standard International Trade Classification (SITC).

If we look at the most important trade flows, we find that in 1989 Argentina's main exports within MERCOSUR consisted of wheat, dairy products, fruits and nuts, petroleum products and motor vehicle parts. Brazil exported coffee, iron ore and concentrates, petroleum products, steel products and automobiles. Uruguay mainly exported meat, rice, processed cereals and some chemical products such as pigments and paints, while the principal Paraguayan exports were cotton, meat, coffee and essential oils.

2. The Andean Pact

The Andean Pact, which is the second-largest of the four groups, has a long history of integration initiatives involving such issues as common industrial policies and other measures that go beyond the idea of simply granting trade concessions. Recent efforts have been much less ambitious, and have focused mainly on trade policies with a view to the overall goal of forming a common market.

Here, too, intrazonal trade flows are fairly concentrated, with bilateral trade between Colombia and Venezuela, along with Ecuador's exports to Peru, accounting for 58% of total trade within this group in 1989.

The degree of integration –as measured by the proportion of total trade represented by intrazonal trade– is quite limited for all the countries involved, with intrazonal trade accounting for around 10% or less of total exports and imports, except in the case of Peruvian imports. Unlike MERCOSUR, the Andean Pact's indicators of zonal dependence for the exports of individual sectors are also very low (see table 2).

In 1989, the main exports to other countries in the zone were copper, zinc, synthetic fibres and petroleum products from Peru; crude petroleum, petroleum products and prepared fish, crustaceans and molluscs from Ecuador; petroleum products, various chemical products, steel products and aluminium from Venezuela; meat, cotton, some chemical products and light manufactures such as outerwear and travel goods from Colombia; and sugar, wood, some chemical products and non-ferrous metals from Bolivia.

3. The Central American Common Market (CACM)

Central American could perhaps be said to have the most ambitious of the recent integration initiatives, since the aim of the participating economies is not only to create a free trade area with common import barriers –as in most other subregions– but also to go a step further and form an economic community equipped with common institutions.

In 1988, however, intrazonal trade was highly concentrated (56%) in bilateral trade between Guatemala and El Salvador and Guatemalan exports to Costa Rica.

The figures given in table 3 attest to the fact that quite a significant percentage (over 20%) of El Salvador's and Guatemala's exports, and a somewhat smaller proportion of Costa Rica's exports, are sold on the intrazonal market.

In 1988 the main products exported by Costa Rica to the zonal market were rubber tyres, medicinal and pharmaceutical products and steel products.

TABLE 2

Andean Pact: Some basic indicators

Country	Relative weight of zonal market in 1991 (%)		Sectors deriving over 50% of the total value of their exports from sales to the Andean Pact countries, 1989	
	Exports	Imports	Number of sectors ^a	Share of exports to Andean Pact in total exports of the sector (%)
Bolivia	10.32	3.74	6	4.2
Colombia	7.54	8.53	54	1.6
Ecuador	4.97	7.55	32	0.9
Peru	7.73	17.15	48	1.7
Venezuela	3.21	2.49	17	0.3

Source: International Monetary Fund (IMF), *Direction of Trade Statistics, Yearbook, 1992*, Washington, D.C., 1992, and estimates based on primary data from the ECLAC External Trade Data Bank for Latin America and the Caribbean (BADECEL).

^a Out of the 237 three-digit product groups contained in the Standard International Trade Classification (SITC).

TABLE 3

**Central American Common Market (CACM):
Some basic indicators**

Country	Relative weight of zonal market in 1991 (%)		Sectors deriving over 50% of the total value of their exports from sales to the CACM, 1989	
	Exports	Imports	Number of sectors ^a	Share of exports to CACM in total exports of the sector (%)
Costa Rica	10.42	8.05	71	6.3
El Salvador	21.33	16.29	115	22.9
Guatemala	26.96	8.54	135	21.1
Honduras	3.59	7.95	59	1.6
Nicaragua	9.64	15.68	69	6.3

Source: International Monetary Fund (IMF), *Direction of Trade Statistics, Yearbook, 1992*, Washington, D.C., 1992, and estimates based on primary data from the ECLAC External Trade Data Bank for Latin America and the Caribbean (BADECEL).

^a Out of the 237 three-digit product groups contained in the Standard International Trade Classification (SITC).

Exports from El Salvador consisted mainly of paper and paperboard, medicinal and pharmaceutical products and footwear. Guatemala's chief exports were medicinal and pharmaceutical products, food products, and perfumery and cleansing preparations. Honduras' share of zonal exports was primarily composed of fixed vegetable oils, fruits and nuts, and wood, while Nicaragua mainly exported iron and steel bars, some chemicals and wire products.

4. The Caribbean Community (CARICOM)

CARICOM is the smallest of the four groups considered here and also has the lowest integration coefficients.

According to the 1988 figures and to data available at the product level for only some of the countries participating in this integration process, CARICOM's intrazonal trade was concentrated

TABLE 4

Caribbean Community (CARICOM): Some basic indicators

Country	Relative weight of zonal market in 1991 (%)		Sectors deriving over 50% of the total value of their exports from sales to CARICOM, 1989	
	Exports	Imports	Number of sectors ^a	Share of exports to CARICOM in total exports of the sector (%)
Bahamas	1.05	1.10	...	...
Barbados	19.13	21.58	4	0.1
Belize	8.61	3.26	...	...
Dominica	12.96	4.96	...	...
Grenada	9.21	21.59	...	...
Guyana	4.35	16.83	...	...
Jamaica	5.08	4.94	11	-
St. Kitts and Nevis (1988)	2.06	5.40	2	-
St. Vincent and the Grenadines	6.68	2.88	...	...
Trinidad and Tobago	16.17	4.83	1	-

Source: International Monetary Fund (IMF), *Direction of Trade Statistics, Yearbook, 1992*, Washington, D.C., 1992, and estimates based on primary data from the ECLAC External Trade Data Bank for Latin America and the Caribbean (BADECEL).

^a Out of the 237 three-digit product groups contained in the Standard International Trade Classification (SITC).

(64%) in bilateral trade between Jamaica and Trinidad and Tobago and in the latter country's exports to Barbados.

The zonal market is of some importance only for the exports of Barbados, Dominica and Trinidad and Tobago, although it accounts for less than 20% even in these cases (see table 4). For the rest of the CARICOM countries, the relative share of total exports accounted for by this integration grouping generally ranged from less than 1% to around 9%, and 1988 data indicate that the percentages were small even at the level of individual sectors.

In 1988, Barbados' exports to the rest of CARICOM consisted mostly of paper and paperboard, some chemical products and construction materials. Jamaica exported mainly chemicals, non-alcoholic beverages and food products. Trinidad and Tobago's zonal exports consisted chiefly of petroleum products, non-alcoholic preparations, cereal preparations and some steel products. Sales by Dominica consisted largely of soap and cleansing and polishing preparations, while products such as margarine and

shortening were the principal exports from St. Kitts and Nevis.

This is the basic framework of trade relations which forms the setting for efforts to promote integration in these four groups of countries. The relatively low level of dependence on zonal markets (which is very low indeed when compared, for instance, with that of the European Community) would suggest that—so long as the overall composition of commodity trade is compatible with the excess demand met by imports from third countries—a significant margin exists for trade diversion.¹ The following section outlines the basic assumptions and methodology used here to simulate the possible impact of this diversion.

¹ The margin for trade diversion appears to be even greater when one considers the increasing participation of several of these economies in the trade in manufactures, as well as the opportunities offered by intra-sectoral trade. Such considerations go far beyond the scope of the present analysis, however.

III

Assumptions and methodology

According to international trade theory, there are certain inevitable consequences whenever a customs union is formed between any two countries. This theory emphasizes, *inter alia*, two economically important effects: the creation of new trade flows between the partners in the union, and –as a result of the adoption of common barriers to imports from countries that are not part of the union– the diversion of trade, meaning the purchase of products supplied by the other partner in the union instead of the (cheaper) imports previously obtained from third countries.

In the present analysis we set out to estimate these effects for the four integration processes currently taking place in Latin America and the Caribbean.

The estimates of trade diversion and of the subsequent trade flows given in the simulations presented here do not take account of the entire potential demand in each member country: the analysis is confined to these processes' first-round effects on trade flows and does not consider possible substitution effects in domestic production. Thus, it is essentially a (static) analysis of what would happen if –given the trade flows existing at the start of these integration processes, along with some assumptions about what the criterion for trade diversion might be– the integration processes embarked upon by these four groups of countries were to be fully realized.

1. Assumptions

For the purposes of the present exercise, it is assumed that:

(i) Trade diversion reaches the point where one member country (chosen in accordance with a specific criterion, as will be detailed below) can meet the import needs of its other partners in the union for some products. Such demand needs are defined in terms of the real import structure of each country before integration;

(ii) There are no supply constraints;

(iii) Traded goods are homogeneous and the domestic supply and demand structures in each market

are such that there is perfect substitution between the goods demanded by local consumers and those consumed in third countries (i.e., there are no restrictions to impede the diversion of exports from one market to any other market);

(iv) The post-integration supply structure is the most efficient one, which means that the most competitive pre-integration exporter will provide the products that will take the place of those sold by suppliers from outside the union;

(v) The process of integration will not affect (at least in the beginning) the relative import mix, so that, since there are no changes in consumption patterns, both the sectoral composition of imports and the relative share of each country in each integration group's total imports will remain constant;

(vi) The above assumptions also lead to the additional condition that the overall trade balance for each country will not be altered by the integration process, since total exports and imports do not change in value, but are only partially re-directed;

(vii) Needless to say, it is further assumed that these four processes of integration will not be aborted, and that the trade structures reflected in the most recent data correspond to those prevailing at the start of the integration process. In other words, the analysis compares two set situations and makes no allowance for any changes during the time period separating the two.

2. Methodology

In the present analysis of the effects of intra-zonal integration on trade flows, the margin for substitution in the supply of traded goods is defined as the current (pre-integration) level of those imports from non-member countries for which there are clear indications that excess demand within the integration zone could be met by diverting products currently exported to third markets to the members of the union, in order to replace external suppliers.

In other words, the analysis concentrates on those products for which there is evidence that the amount actually exported by one of the partners to

the rest of the world could –given the above assumptions– be diverted in order to supplant suppliers from third countries.²

The satisfaction of this excess demand as a consequence of the zonal integration process entails diversion of trade (since existing supply conditions and the overall trade balance are assumed to remain constant), and this should be carried out as efficiently as possible.

The present exercise was thus designed to be a highly specific simulation based on the assumption that the most efficient supplier should provide the products for which there is excess demand within each grouping. As thus defined, trade diversion involves the following steps:

(i) The excess demand within the integration grouping open to each participating country is defined, for each product, as the sum of the real (pre-integration) imports purchased from the “rest of the world” by the other members.

(ii) The “competitiveness indicator” to be used for this analysis is the amount actually exported by each member country to third markets: the greater the amount of exports, the more competitive the country of origin (in relation to its partners in the grouping). One obvious limitation of such a procedure is that it does not take account of the scale of domestic production (thus discriminating against the smaller economies in each group of countries). It is implicitly assumed that the country which exports the most of a given product is the most efficient and is therefore a “natural candidate” for the job of supplying the other members of the group with those products for which there are indications of excess demand (as defined above).

(iii) According to the criteria adopted, trade diversion will occur only in the case of those products for which one of the member countries’ (pre-integration) exports to the rest of the world are greater than the excess demand existing within the

group that could be met by that specific country. In such a case, “the efficient supplier” as defined above is most readily identifiable.³

(iv) Trade diversion is therefore measured for each country and product by separating the amount required to meet the excess demand of the zonal market from the current total exports to third markets. This obviously entails identifying different countries as possible future (supplementary) suppliers of specific products to the zonal markets, with obvious implications for their exports to third markets. As an illustration, using this methodology it was possible to deduce the probable trade diversion of a given product –e.g., wheat– following the formation of MERCOSUR. In the case of this commodity, it would fall to Argentina, as the main exporter in the group, to satisfy the group’s (pre-integration) needs by reducing the amount it currently exports to other areas.

(v) After determining the extent of trade diversion for each country, it then becomes possible to compute the value of that country’s new (post-integration) export flows to the zonal market as well as to other markets.

(vi) In order to estimate post-integration import flows, a number of additional assumptions are required. Clearly, each country’s imports from other member countries will be equal to the pre-integration level of such imports, plus some portion of the new trade flows generated by the integration process. It must be remembered, however, that the estimates of trade diversion were made for each country, i.e., from the standpoint of the *supplier* of each product. How much of the diverted value will be *imported* by each country individually remains to be estimated. It was further assumed that there would be no change in the sectoral structure of each country’s imports and that each country’s share in the total imports of each product would therefore not be altered by the integration process. That same percentage share for each country was then used to

² Ideally, the estimates of trade diversion should take into consideration all the relevant information, including the phasing-out of trade barriers, as well as the relevant supply and demand elasticities of all the countries involved in each integration process. Such an approach would require a great deal more data than were available at the time of this article’s preparation, however, and thus goes beyond the scope of the present analysis.

³ Obviously, some other procedure for defining trade diversion could be used, and it might be argued that an alternative criterion involving all the participants in the union would be more acceptable. No matter what procedure were chosen to determine the amount that should correspond to each country, however, it would be just as arbitrary as the one adopted here.

determine the amount of the diverted trade in each product that would be imported by each member country.

(vii) Once post-integration zonal imports had been estimated, it then became possible to calculate the new intra-zonal and global import flows and, hence, each country's new balance of trade with its partners in the union and with the rest of the world.

3. Information

The data used for this purpose were taken from the External Trade Data Bank for Latin America

and the Caribbean (BADECEL) maintained by ECLAC and corresponded to product groups at the three-digit level of the Standard International Trade Classification (SITC). At the time when this study was conducted, the most recent data available at that level were for 1989 in the cases of MERCOSUR and the Andean Pact and 1988 in those of CACM and CARICOM.

Data were available for every country in MERCOSUR, the Andean Pact and CACM. In the case of CARICOM, however, the analysis had to be limited to Barbados, Dominica, Jamaica, St. Kitts and Nevis, and Trinidad and Tobago.

IV

Main results of the simulation

The simulation exercise permitted the identification of six basic product vectors: (i) export products which would be diverted from third markets into the zonal market; (ii) products that would continue to be imported from third countries because the countries forming the union cannot meet the local demand;⁴ (iii) the new vectors of total exports and imports in (post-integration) zonal trade; and (iv) the new vectors of total exports and imports in (post-integration) trade with the rest of the world.

Analysis of the resulting vector for products diverted into the zonal market illustrates the differences in the conditions existing in the various economies and makes it possible to identify the products that each country would contribute to the zonal market.

As mentioned in the previous section, the exercise was carried out using trade statistics at the three-digit level of SITC, which contains 237 product groupings at this level of aggregation. One indicator of the extent of each country's involvement in trade diversion would thus be the actual number of product groupings which each country would divert to the zonal market, under the assumptions used in this simulation (see table 5).

⁴These would be products which, during the period prior to integration, no single country exported to third countries in an amount exceeding the total demand for imports of such products on the part of the other member countries.

Table 5 shows that trade diversion would tend to be more intensive in the case of the main exporting economies in each group. This result, which is partly due to the methodology used, is particularly clear in the case of MERCOSUR, for example. The reader will notice, however, that this admitted bias is not a generic characteristic: in the case of the Andean Pact, it is estimated that Peru would divert a larger number of products than any of its partners, even though Colombia's and Venezuela's total exports are greater. The same holds true for Costa Rica in comparison to Guatemala in CACM, and for Jamaica in relation to Trinidad and Tobago in CARICOM. Specific sectoral specialization would seem to play an important role in this regard.

Table 5 also gives two indicators of the relative weight of the estimated diversion in terms of export value, thus giving an approximate idea of the relative impact on (pre-integration) export flows to the zonal market and to the rest of the world. This table also (predictably) suggests that in more homogeneous country groupings the various members are likely to account for a fairly similar number of products, while the opposite is observed in those groups with more pronounced differences. The figures for MERCOSUR and the Andean Pact are quite illustrative in this respect.

Not surprisingly, in view of the Caribbean countries' low degree of prior integration, the consolidation of CARICOM would probably have the greatest impact. The effects of MERCOSUR on Brazil's

TABLE 5

**Estimated trade diversion in four integration processes
in Latin America and the Caribbean: Product groups affected
and relative magnitude of diversion in each country**

	Trade diversion		
	Number of product groups	Relative magnitude of diversion:	
		In intrazonal exports (%)	In total exports (%)
MERCOSUR (1989)			
Argentina	21	25	4
Brazil	98	77	8
Paraguay	-	-	-
Uruguay	3	3	1
Andean Pact (1989)			
Bolivia	7	117	7
Colombia	16	21	2
Ecuador	9	17	1
Peru	20	310	23
Venezuela	16	154	6
CACM (1988)			
Costa Rica	15	20	2
El Salvador	1	3	1
Guatemala	9	3	1
Honduras	9	66	3
Nicaragua	2	25	2
CARICOM (1988)			
Barbados	3	15	1
Dominica	1	233	16
Jamaica	11	164	4
St. Kitts and Nevis	1	8	0
Trinidad and Tobago	9	622	21

Source: Estimates based on primary data from the ECLAC External Trade Data Bank for Latin America and the Caribbean (BADECEL).

intrazonal exports and of the Andean Pact on those of Peru would also be quite marked.

Given the initial low level of dependence on zonal markets, however, even these dramatic increases in zonal trade would have only a limited impact on each group's total exports. With the exception of Trinidad and Tobago and Dominica in CARICOM and of Peru in the Andean Pact, trade diversion, when calculated in this way, would account for about 8% or less of the total exports of each of these countries.⁵

⁵ The reader is reminded that, under the assumptions used in this simulation, the figures in table 5 do not refer to changes in total exports (which are assumed to remain constant although they have been re-directed), but instead simply illustrate the relative magnitude of the new trade flows.

These figures seem to suggest that even under the extreme hypothesis of assuming that all potential trade diversion were concentrated in a single economy within each group, the overall impact on total trade would still be limited.

An analysis of the sectoral trade-diversion estimates provides a rough idea of how much each country would contribute to the intrazonal market following the creation of the free trade area. According to these estimates, the main products corresponding to each country (i.e., those products that would account for half or more of the trade diverted by each country in terms of value) would be as indicated in table 6.

The figures shown in table 6 may be interpreted as the sectoral results of trade diversion, providing that present market conditions remain unchanged and the process of integration is carried out without any

external interference (e.g., common sectoral policies, sectoral differentiation in the trade liberalization process, etc.).

It is interesting to note that in most cases the new trade flows would consist mainly of primary products or light manufactures containing a large component of natural resources (chemicals and textiles). In none of these cases would there be an increase in intrazonal exports of capital goods.⁶ One possible explanation for this fact may be found in the existing product mix of trade in Latin America and the Caribbean, since most of the region's exports of capital goods are already sold to other Latin American and Caribbean countries, although in reality the OECD countries supply most of the region's needs (indeed, this continues to be one of the main categories of products imported from the industrialized world).⁷

When tables 5 and 6 are taken together, this may lead to the following conclusions: (i) there is significant potential for the intensification of intrazonal trade, i.e., similarities in the existing export and import structures do not appear to constitute a major obstacle in and of themselves; and (ii) it is very possible that non-induced (spontaneous) integration processes may not have the effect of promoting intrazonal trade in manufactured products which is often hoped for.

Table 7 lists, for each country group, the products that would continue to be imported from third countries even after completion of the integration process, i.e., those products for which, according to the selected criteria, no margin exists for the replacement of external suppliers (here again, we refer to products representing half or more of the total value of excess demand for imports from third countries).

This simulation appears to suggest that MERCOSUR, the Andean Pact and CACM would remain dependent upon external supplies of chemicals and related products, machinery (electrical and non-electrical) and some intermediate industrial goods, such as paper and steel products. In CACM it is also likely that excess demand for transport equipment would continue to exist. These three groups, as well as CARICOM, would also continue to be dependent upon external supplies of mineral fuels, lubricants

and related materials. Two other specific products for which excess demand would continue to exist are copper ores, in MERCOSUR, and wheat in the Andean Pact.

These results suggest that it might be wise to adopt certain policy measures in connection with these integration processes, such as the promotion of even closer relations between MERCOSUR and Chile (the main supplier of copper) and the creation of specific mechanisms to improve the intrazonal market for producer goods that can be supplied by member countries.

Before going into these sorts of inferences, however, it might be useful to gain an idea of how the integration process will affect the trade balance of each country group. The demand for hard currencies in these countries is obvious. Hence the importance of assessing the implications for the trade balance of each country with the rest of the world and with its partners of the trade diversion estimated to be likely in this simulation.

It can naturally be predicted that the trade balance with the relevant country group is likely to improve for each of the countries that will supplant external suppliers, as judged from the criteria adopted here. The intrazonal trade surpluses of Argentina, Brazil,⁸ Costa Rica and, most of all, Peru, Venezuela and Trinidad and Tobago can therefore be expected to increase significantly as a result of the shift in trade flows. In contrast, Uruguay, Paraguay, Colombia, El Salvador, Barbados, Dominica, Jamaica and St. Kitts and Nevis would increase their net imports from their zonal partners.

Due to the methodology used for this simulation, these results entail a corresponding variation in these countries' trade surpluses with the rest of the world. The impact on these trade balances with the rest of the world would be fairly slight, however, as the previous evidence pertaining to relative dimensions would lead us to expect. In the specific case of Trinidad and Tobago, if the predictions derived from these simulations are correct, then that country would see its trade surplus with the rest of the world turn into a small deficit.

⁶ Brazil is the only country for which the simulations have yielded trade diversion figures in respect of SITC section 7, "Machinery and transportation equipment". This category includes not only road vehicles but also specialized machinery for particular industries, general industrial machinery, electrical machinery, and other transport equipment.

⁷ See ECLAC, *Latin America: Trade of Capital Goods and the Need for Export Financing* (LC/R.967/Rev.1), Santiago, Chile, 1991.

⁸ Brazil's considerable deficit would be converted into a surplus.

TABLE 6

Trade diversion: Individual countries' simulated sectoral contributions to the corresponding zonal market

Country	SITC	Product
MERCOSUR		
Argentina	041	Wheat
	054	Fresh or frozen vegetables
	611	Leather
	678	Tubes and pipes, of cast iron
Brazil	334	Petroleum products, refined
	583	Polymerization products
	672	Ingots and other primary forms of iron and steel
	674	Universal plates and sheets, of iron and steel
	743	Pumps and compressors
	781	Passenger motor cars
	784	Parts and accessories
Uruguay	654	Textile fabrics, woven, other than of cotton or man-made fibres
Andean Pact		
Bolivia	248	Wood, simply worked
	687	Tin
Colombia	292	Crude vegetable materials
	671	Pig iron, iron or steel powders and shot
	842	Outer garments, men's and boys', of textile fabrics
Ecuador	057	Fruit and nuts, fresh and dried
Peru	081	Feeding stuff for animals
	287	Copper ores and concentrates
	682	Copper
Venezuela	334	Petroleum products, refined
	673	Iron and steel bars, rods, angles, shapes and sections
CACM		
Costa Rica	057	Fruit and nuts, fresh and dried
	292	Crude vegetable materials
	842	Outer garments, men's and boys', of textile fabrics
	843	Outer garments, women's, girls' and infants', of textile fabrics
El Salvador	658	Made-up articles, wholly or chiefly of textile materials
Guatemala	075	Spices
	263	Cotton
Honduras	686	Zinc
Nicaragua	971	Gold, non-monetary
CARICOM		
Barbados	091	Margarine and shortening
Dominica	057	Fruit and nuts, fresh and dried
Jamaica	061	Sugar and honey
	843	Outer garments, women's, girls' and infants', of textile fabrics
Saint Kitts and Nevis	268	Wool and other animal hair
Trinidad and Tobago	334	Petroleum products, refined
	522	Inorganic chemical elements
	562	Fertilizers, manufactured

Source: Estimates based on primary data from the ECLAC External Trade Data Bank for Latin America and the Caribbean (BADECEL).

TABLE 7

**Latin America and the Caribbean: Simulation of remaining
Imports from third countries after the formation of free trade areas**

Country group	SITC	Main products
MERCOSUR		
	287	Copper ores and concentrates
	322	Coal, lignite and peat
	333	Petroleum oils
	514	Nitrogen-function compounds
	515	Organo-inorganic and heterocyclic compounds
	541	Medicinal and pharmaceutical products
	562	Fertilizers, manufactured
	724	Textile and leather-working machinery
	749	Non-electric parts and accessories of machinery
	776	Thermionic, cold cathode and photo-cathode valves and tubes
Andean Pact		
	041	Wheat
	515	Organo-inorganic and heterocyclic compounds
	541	Medicinal and pharmaceutical products
	562	Fertilizers, manufactured
	583	Polymerization and copolymerization products
	598	Miscellaneous chemical products
	641	Paper and paperboard
	674	Universal plates and sheets, of iron and steel
	678	Tubes and pipes, of cast iron
	713	Internal combustion piston engines
	723	Civil engineering and contractor's plant and equipment
	724	Textile and leather-working machinery
	728	Other machinery and equipment for specialized industries
	737	Metalworking machinery
	743	Pumps and compressors
	749	Non-electric parts and accessories of machinery
	752	Automatic data processing machines
	764	Telecommunications equipment
	778	Electrical machinery and apparatus
	781	Passenger motor cars
	784	Parts and accessories
	874	Measuring, checking, analysing and controlling instruments and apparatus
CACM		
	333	Petroleum oils
	334	Petroleum products, refined
	541	Medicinal and pharmaceutical products
	562	Fertilizers, manufactured
	583	Polymerization and copolymerization products
	591	Disinfectants, insecticides, fungicides
	641	Paper and paperboard
	674	Universal plates and sheets, of iron and steel
	782	Motor vehicles for the transport of goods or materials
CARICOM		
	334	Petroleum products, refined

Source: Estimates based on primary data from the ECLAC External Trade Data Bank for Latin America and the Caribbean (BADECEL).

V

Some final considerations

The debate on regional integration and, more generally, on the whole question of the advantages of forming free trade areas, either at the subregional level among Latin American and Caribbean countries or with the involvement of other important partners such as the United States, has gained momentum in recent years. New approaches to trade policy as a whole have also engendered new ways of looking at trade preferences in the sense that countries are tending to regard recent integration experiments as a means of enhancing competitiveness and using it as a tool to improve the broader international economic relations of the Latin American and Caribbean economies.

The customary argument is that access to larger markets could allow production activities to be pursued on a larger scale and with more efficient methods, thereby opening up greater opportunities for the adoption of up-to-date technologies and gradually increasing the competitiveness of the countries' production structures. The main reason for preferring bilateral concessions at the subregional level rather than unilateral moves to open up domestic economies is the bargaining process which is inherent in the former approach, which enables each participating country to be assured of obtaining increased market access in exchange for the concessions it makes. Subregional integration processes may thus be understood as an intermediate "learning" stage on the path towards multilateral trade liberalization.⁹

Although this debate is an increasingly important one in Latin America and the Caribbean, it often fails to assess the probable economic impact of such experiments, partly because of the difficulty of determining, with any acceptable degree of accuracy, how the foreign trade flows of the countries involved may be affected. Estimating the likely effects may be a very complex task, especially if an effort is made to take account of the relevant elasticities and intertemporal changes, if general equilibrium models are used to deduce the impacts of integration on the various product and factor markets, etc.

⁹ This is true so long as they provide only for trade concessions or, in other words, so long as they do not involve parallel measures such as common policies affecting factor movements.

In this analysis we set out to simulate one of these possibilities, by defining one specific criterion for determining the probable trade diversion, on the basis of admittedly extreme assumptions, namely, that only one of the countries involved in the formation of these zonal groupings would replace the outside suppliers of the products for which there is evidence of excess demand. One argument in favour of this line of reasoning might be that in dealing with the most extreme cases, in which only the most efficient producers play a role, it may therefore reflect situations similar to those created by market-determined movements.

At all events, the simulation has yielded some interesting results. It was found that, owing to each country's low level of dependence upon intrazonal trade, the overall impact of the consolidation of the four integration processes on the total trade levels of the countries involved in these processes is likely to be rather limited, unless there is an expansion of the overall levels of trade involved.

At the same time, the low level of pre-integration trade is in itself a guarantee of significant margins for trade diversion. It was found that, for some countries, intrazonal exports are likely to grow quite significantly as a consequence of the formation of these subregional markets.

This does not mean that dynamic comparative advantages will necessarily be generated by the integration process. Indeed, it was found that the new trade flows (i.e., trade in those products where member countries supplant outside suppliers) are likely to be concentrated in primary products and in natural resource-intensive light manufactures.

This is in part a reflection of the existing structure of trade—since a large portion of the Latin American and Caribbean countries' exports of manufactures is sold within the region (which means that the corresponding figures will be affected by the methodology used in this analysis)—but it also points up the need for further consideration of the way in which bilateral concessions are defined.

These results indicate that trade preferences differentiated on a bilateral basis—if left to the free market forces—may not have the effects which zonal

integration is often expected to produce (i.e., enhancement of the competitiveness of manufactured products), except in some specific sectors. Insofar as the present exercise reflects the natural tendencies of existing demand, it is more likely that the effects will be felt in the trade in products involving relatively little industrial processing.

The foregoing observations do not make a clear case for intervention. The results should be examined with great care, given the rigid nature of the assumptions made. Nevertheless, they do illustrate the need for a more active debate regarding the specific role to be attributed to the expected effects of such integration initiatives. Furthermore, they may serve as rough guidelines for the definition of possible compensatory mechanisms for participating countries, as well as providing an argument in favour of sectorally defined (rather than linear, across-the-board) tariff reductions in connection with the formation of these free trade areas.

What policy lessons can be derived from these findings?

First and foremost, since the exercise indicates the existence of significant margins for trade creation, one obvious recommendation is that these processes should be stimulated, even if this means we must downgrade our expectations regarding the dynamic effects of integration.

A second point to be considered is that, as mentioned at the beginning of this article, the integration processes reviewed here all have objectives that go beyond trade concessions; in many cases they call for common treatment for investors, harmonized labour laws, etc., and in some cases they even go so far as to envision the creation of common currencies. Under such circumstances, there are at least two important qualifications to be made in respect of the results obtained here. First, the outcome in terms of trade structure will probably be affected by other factors apart from the actual pre-integration composition of

trade. Second, in such a broad policy context there is certainly a place for the proposal of a carefully pre-defined reformulation of trade barriers based on commonly agreed sectoral approaches in order to reduce the costs of the disruption that could be created by an abrupt, across-the-board form of trade liberalization.

A final point to be considered –although it concerns an aspect of the integration process that has not been dealt with here– has to do with the complementarity of these various integration initiatives as seen from a broader regional perspective.

The negotiations that lead to the formation of these country groups are in large part pursued within the framework of broader regional agreements. This is the case, for example, of the concessions made among the member countries of MERCOSUR: all these countries' reciprocal tariff reductions are registered as bilateral concessions with ALADI, as a signal that at some future date they may be extended to other countries of the region.

This leads to a taxonomic approach to free trade, whereby subregional agreements would be the first step, to be followed by regional integration and, finally, multilateral liberalization. This sequencing is more justifiable on geopolitical grounds than on the basis of sound economic arguments, however, and should therefore not be viewed as representing an automatic form of determinism.

What is important to note here is that similar types of exercises regarding groups of countries –not just individual countries– would seem to indicate the existence of a potential complementarity that should be explored in greater depth. One obvious example that came out quite clearly in these simulations is the indication of a continued need for copper imports on the part of the MERCOSUR countries. This appears to provide a strong argument in support of the efforts now being made to devise ways of bringing Chile closer to those countries in the economic sphere.

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