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Eduardo Gitli y Randall Arce

[1] *Economist, Associate Expert at the* Centro Internacional de Política Económica para el Desarrollo Sostenible (CINPE), *in the National University, Costa Rica where he teaches masters programs.*

[2] *Associate researcher at the* Centro Internacional de Política Económica para el Desarrollo Sostenible (CINPE), *in the National University, Costa Rica.*

Summary

There is no doubt about the importance of the garment sector for the economies of the Caribbean Basin. Since 1994 there has been growing concern about the negative effects that approval of the North American Free Trade Agreement (NAFTA) could have had and might continue to have on the sector, as well as the impact of the devaluation of the Mexican currency at the end of that same year. This is because of the possibility that Mexico's trade competitiveness might increase as a result of such factors. The discussion has prompted a controversy, evident in official complaints by the region's governments, entrepreneurs and newspapers, and even in some academic studies. This article seeks to measure such effects and to further understanding of the growth-stagnation contradiction apparent in the dilemmas faced by the countries of the Caribbean Basin.

I. Introduction

The Caribbean Basin garment industry accounts for a significant share of the region's total exports to the United States, and it generates a good amount of jobs in the region.[1]

This sector is important for the economies of the region. Since 1994-1995, therefore, there has been growing concern over the negative impact that the North American Free Trade Agreement (NAFTA) – which entered into force on 1 January 1994 – and the devaluation of the Mexican currency at the end of that year may have had and continue to have on these exports. This is because of the possible increase in Mexico's trade competitiveness as a result of these factors.

This concern is evident in the studies carried out on this issue since then, and that are briefly examined below.[2]

In an analysis on the effects of NAFTA on Central America using a Heckcher-Ohlin model, Leamer *et al* [1995] calculate the growth in Central American manufacturing exports. The study starts from the premise that *manufacturing exports are essential for the economic growth of countries with development levels similar to those of Central America,* and concludes that NAFTA is a more significant threat to El Salvador, Honduras and Guatemala than to Costa Rica and Nicaragua. This is because, according to investment rate estimates, the former three countries still have considerable scope for increasing their exports, while Costa Rica reached its limit in 1998 and Nicaragua is still barely at the minimum threshold to develop such activities. Since this study is concerned exclusively with NAFTA and its effects on Central America, however, it does not examine the possible impact of relative salary changes brought about by the Mexican devaluation.

In a study of this issue, emphasizing the evolution of relative prices and the volume of exports, Buitelaar [1997] considers a broader range of products than just the textile-garment sector. He concludes that *the free trade agreement only has an impact in 1994. The 1995 devaluation does not appear to have had a negative impact on the exports of the smaller countries to the United States*. However, since these products do not have the same characteristics as the garment sector in terms of specificity of investment, it is useful to review these conclusions, particularly for this productive sector. The author himself points this out, noting that relative prices differ by type of product and country. He also indicates that *progress in Mexico did not greatly affect the smaller countries, and confirms Leamar et al's suspicion that the marginal exporter affected can be included in the group of countries referred to here as the rest of the world.*

According to the US International Trade Commission, the increase in Mexican exports is only attributable to NAFTA, since the Mexican devaluation at the end of 1994 also had an impact (USITC [1997]). The document supports this by arguing that imports from the Caribbean Basin countries have not fallen despite these factors, but have instead continued to rise. It could obviously be argued that it is in USITC's interest to underestimate the importance of NAFTA's impact on the Caribbean Basin countries and instead attribute it to the 1994 devaluation.

These studies highlight the underlying concern over the possible effects of NAFTA and the Mexican devaluation on the export performance of the economies of the region. This concern is examined in the present study, in order to quantify the impact of these two factors on the relative competitiveness of the Caribbean Basin garment industry in relation to Mexico.

It is important to note that in this analysis *market share* is used as an indicator of competitiveness, with the aim of examining whether these countries can maintain or increase their share over time.[3] Further study is necessary however, since in 1998, and for the first time in the 1990s, the Caribbean Basin countries lost market share in the garment sector, while Mexico continued to experience high growth.[4]

In May 2000 the new Trade and Development Act 2000 entered into force. This broadened the benefits accorded to the countries of the Caribbean Basin (Gitli and Arce [2000]). The new treatment rectifies some of the sharpest differences with Mexico that had arisen in the garment-making *maquiladora* sector, but it remains far from the kind of treatment that would allow decisive progress to be made in creating the productive links desired.

II. The importance of the Caribbean garment sector in US imports

ver recent years, textile-garment products have accounted for an increasing share of US imports from the Caribbean Basin countries,[5] reaching 50% of the total in 1998, compared to 27% in 1990. This growth, shown in Table 1, is all the more significant given that these products do not benefit from the preferences of the Caribbean Basin Initiative.[6]

In 1990, agricultural products had a similar share of the US market as textile-garments, but the former's share has been falling since then. The share of other industrial products has also been declining, since in 1990 this sector was more important than the textile-garment industry. By 1998, however, industrial products represented less than a third of total US imports from the Caribbean Basin.[7]

III. Main suppliers of garment products to the United States

Garments are the most important group of products imported by the United States from the countries of the Caribbean Basin. Since 1990, the behavior of garment imports to the United States has changed significantly. Table 2 shows that the Asian countries[8], which are the main suppliers of apparel products, quickly began to lose market share in the United States because of the latter's decision to impose quotas. The geographical distance between Asia and the United States[9] also had an impact, especially since distributors have tended to manage fewer inventories because of high real interest rates and continuous changes to the preferences.

The share of the market lost by Asia in the 1990-1998 period has been largely won by Mexico and the Caribbean Basin countries. During this period, the Asian countries' market share fell by 22.1%, while that of the Caribbean Basin countries increased by 8.2% and that of Mexico by 10.7%. The CBI countries and Mexico combined, therefore, increased their market share by 18.9%, accounting for 85.3% of the total lost by the Asian countries.

In comparing the evolution of the Caribbean Basin countries' and Mexico's market share, it is clear that from 1994 there was a change in the behavior of the CBI countries in relation to Mexico (see Table 2). In the initial period (1990-1993), the CBI group's share rose at a faster rate than that of Mexico, which enabled the former to win much of the market lost by the Asian countries. From 1994, however, there was a significant change in the conditions of growth in these two competitors: Mexico's growth rate increased substantially, while the CBI group's fell. Most of the market lost by Asia was therefore won by Mexico after that date.[10]

To understand this change, it is useful to examine the *market share gap*, which is defined as the market share of the Caribbean Basin countries minus Mexico. This gap is presented in Table 2, which shows that until 1993 there was an upward trend, reflecting higher growth in the CBI countries than in Mexico. From 1994, however, there was a downward trend, indicating the significant increase in Mexican clothing exports to the United States.

In 1990 the gap was 5.6%, while in 1997 the figure fell to below that of 1990 (5.3%), and in 1998 it dropped even lower (3.2%).

This study will examine the reasons for this sudden change in the evolution of garment exports to the United States from these two competitors. In 1994, two factors emerged to explain this change in behavior: NAFTA entered into force on 1 January 1994 and led to tariff reductions for Mexican garment exports; in December 1994 the Mexican currency was devalued by 100% in nominal terms (50% in real terms), resulting in a fall in Mexican wages paid in dollars and the attendant incentive to increase export production in Mexico. These two factors, which helped Mexico increase its market share from 1994-1995, will be examined separately below.

Tariff reductions in the framework of NAFTA

The agreement included all products, and textiles-garments were thus included in NAFTA's tariff reduction program. From 1994, therefore, all tariffs for goods entering the United States and covered by the agreement were gradually lowered. Those countries that were not party to the agreement were thus placed at a disadvantage.[11]

In this respect, Buitelaar [1999] notes that:

"NAFTA led to the virtual elimination of tariffs for Mexican garment exports, while for Central America and the Dominican Republic the special access regime reduced tariffs by 5-10%".

By way of example, Table 3 compares the evolution of the average tariff paid by the CBI countries with that levied on Mexico[12] for garment products.[13] Until 1993, therefore, Mexico and the CBI countries paid the same tariff. In 1994, and as a result of NAFTA, Mexican products began to benefit from tariff reductions, and in 1995 the Uruguay Round agreements resulted in small generalized tariff reductions. Since 1994, however, tariffs on Mexican garment exports have fallen at a faster rate than those for the CBI countries (and the rest of the world).

With respect to the differences in tariffs as of 1994, ECLAC highlights the following:

"… the tariff differences with Mexico, especially since NAFTA entered into force in 1994, has resulted in the Central American countries paying a tariff three to twelve times higher than Mexico's at the two-digit level of the Harmonized System, and up to 33 times higher in specific products at the 10-digit level." (ECLAC [1997]).[14]

In this regard, Mortimore notes that:

*"...the entry into force of the North American Free Trade Agreement (NAFTA) in 1994 gave Mexico an advantage over the Caribbean countries, since the former benefited from a six-point preference in the US tariff; was no longer subject to import quotas for many articles of apparel; and most importantly, could include Mexican inputs as part of NAFTA rules of origin, which gave Mexico an enormous advantage over the Caribbean countries. Since the entry into force of the agreement, therefore, Caribbean garment makers have been lobbying the US Congress for "NAFTA parity" (*Mortimore [1999]).

Wages in dollars following the mexican devaluation

As shown in Table 4, the Mexican devaluation at the end of 1994 led to a fall of almost 50% in real terms in the value of the peso, while the real exchange rates in the rest of the region did not fluctuate significantly. This increased the cost differentials between the various countries of the Caribbean Basin and Mexico, particularly in those industries, such as the *maquiladoras*, which used inputs from abroad. These firms' production therefore benefited from the devaluation. The *maquiladora* industry's cost structure is based almost exclusively on salaries. Gitli [1997] presents the cost structure for Costa Rican *maquiladora* companies in Table 5.

Decisions on investing in a particular country are therefore based on the wage component, since this accounts for more than half the total cost. A significant devaluation is thus an important incentive for companies to relocate and transfer investment elsewhere.[15]

Before examining what happened to relative wage costs between the Caribbean Basin countries and Mexico, it is necessary to analyze existing wage differentials between the main countries of the region, using wage costs per hour in their *maquiladora* industry.

Table 6 shows that Costa Rica and Panama have the highest wage costs, while the rest of the countries of the region and Mexico have relatively low wages. Southern Mexico and Honduras have the lowest wage costs in the *maquiladora* industry.[16]

Table 7 compares relative wages in dollars in each Caribbean Basin country (where data are available) with that of Mexico, in order to assess the cost advantages arising from the evolution of relative wages in Central America. In 1993-1993, relative wages evolved in a manner that favored production in the Caribbean Basin. This trend was reversed in 1995 as a result of the Mexican devaluation. By 1998, relative wages in all the countries had still not returned to 1994 levels, and the wage differential that emerged in that year remained. If this is compared with 1990, only relative wages in Honduras recorded the same level in 1998 as in 1990, while the other countries still had a higher rate than that of 1990.[17]

It is worth noting that the relative salary indices (SI) are based on average incomes calculated from home surveys and other statistical publications. The relative evolution of wages is therefore calculated from an arbitrary base year (1989), taking into account exchange rate fluctuations and translating these into index numbers. This method will be used until there is a better alternative.

IV. Statistical verification of the impact of tariffs and salaries

A series of econometric calculations were carried out to differentiate between the impact of NAFTA tariff reductions and the Mexican devaluation on the competitiveness of the garment industry in the Caribbean Basin. The basic competitiveness indicator used is market share, whereby a country can be defined as *competitive* in a specific product or group of products if it is able to maintain or increase its share of the destination market.

Since the aim is to measure the difference in the region's competitiveness[18] with respect to Mexico, the competitiveness indicator is relative: the Market Share Gap (SG) is used to measure the evolution of each CBI country's market share in relation to Mexico. Table 8 shows this indicator and the method for calculating it.

Tariff reductions in favor of Mexico are calculated by an indicator that measures the relative tariffs paid by each Caribbean Basin country in relation to those paid by Mexico for the same products, that is:

(1)

$$RT_{it} = T_{it} / T_{mt}$$

Where:

RT_{it} : Relative Tariff of a Caribbean Basin country in a given year.

T_{it} : Tariff paid by each Caribbean Basin country.

T_{mt} : Tariff paid by Mexico

Relative salaries are, however, used to calculate the impact of salary changes on competitiveness, as shown in Table 7.

The basic specification of this model is therefore:

(2) $$SG = f(RT, SI)$$

The estimates are calculated using panel data regression for the 1990-1998 period, and the specific formula used is:

(3) $$SG_{it} = \alpha + \beta_i * RT_{it} + \gamma_i * SI_{it} + \varepsilon_{it}$$

Parameter β_i should be negative, given that when relative tariffs increase in a CBI country with respect to Mexico, costs fall in the latter, resulting in a drop in the share gap between the Caribbean Basin country and Mexico.

Parameter γ_i should also be negative, since an increase in relative salaries in the CBI countries with respect to Mexico is an incentive to produce in Mexico, given that labor costs are lower. Conclusions drawn from these calculations are shown in Table 9.

In general, the relative tariff largely accounts for the CBI-Mexico competitiveness differential. This is because in nearly all cases (except El Salvador) the coefficient associated with this tariff variable is higher than the coefficient associated with the wage variable. However, in carrying out the respective hypotheses tests for calculating whether the coefficients associated to tariffs and wages are statistically the same, the hypothesis that they are not the same cannot be rejected in the case of El Salvador (prob=0.96) and Honduras (prob=0.35). Therefore, for these two countries the degree of influence of both variables might not be different. The case of Guatemala (prob=0.065) is intermediate, since it can be accepted to 10% that the relative tariff was the variable that most affected the Guatemala-Mexico share differential. In the cases of Costa Rica (prob=0.002) and the Dominican Republic (prob=0.0002) there is significant evidence that the relative tariff was the variable that most influenced the fall in the share gap.[19]

Although the evidence is not conclusive, there are signs (although weak) that the Caribbean Basin's market share differential in relation to Mexico is largely due to relative tariffs. Both effects are, however, significant. The influence of both variables combined therefore had a greater impact on the countries of the Caribbean Basin.

An ECLAC study on the effects of tariffs on Central American textile and garment exports to the United States in the 1990-1995 period draws the following conclusion:

"The research does not provide conclusive evidence that the tariff benefits granted to Mexico have had a negative impact on the dynamic of Central American exports. However, it is safe to assume that this tariff structure will have negative medium- and long-term effect on investments, and thus on Central American garment exports to the United States. Independently of this impact, the implicit cost of Central American tariffs is very high and significant. It is not difficult to imagine that after tariff parity Central American exports will increase and/or prices fall. It is important to examine trends that might have a negative impact in the hereto export dynamism of Central American garment exports" (ECLAC [1997])

According to ECLAC, therefore, it is necessary to examine those trends that might affect the high dynamism of regional garment exports, given the medium- and long-term negative impact of the tariff disadvantage they face. After years of sustained growth in its share of the US market, the Caribbean Basin's share therefore fell from 17% to 16.6% between 1997-1998. During this same period, Mexico increased its share by 1.7%. This highlights the difficulties currently facing the Caribbean Basin garment industry compared to that of Mexico.

What were the monetary effects of this change in the evolution of Mexican and Caribbean Basin exports? Once the scale of the effects of relative tariffs and relative wages on the CBI-Mexico competitiveness differential has been calculated, and evidence provided that both variables had a negative effect on this indicator, it will be necessary to examine the level of loss incurred by the region as a result of the reduction in tariffs.

Estimates were made of what the Caribbean Basin would have exported to the United States had the former secured tariff parity after NAFTA entered into force – that is, if products from the Caribbean Basin and Mexico had entered the United States with the same tariff from 1994.

The evolution of the CBI group's market share was estimated – on the basis of its previous value and on the tariff dynamic prevalent in the 1990-1998 period – in order to replicate it. That is:

$$S_t = \phi S_{(t-1)} + \delta RT_t + \varepsilon_t \qquad (4)$$

Where:

S : Caribbean Basin market share

RT : Relative Tariff

The autoregressive term (market share in the previous period) is used since the region's market share has a behavioral dynamic with a well-defined trend. This is analyzed through a parameter that takes into account the prior evolution of the variable. The result of this estimate is shown in table 10 where both estimated parameters are statistically significant.

Given the above, it is interesting to examine what would have happened if NAFTA had not caused these tariff differentials. In this regard, the estimate consisted of assuming tariff parity during the whole period. The results show that in 1998 there was a loss of US$ 1.059 billion in terms of imports that did not take place in that year – that is, 2.2% of total US garment imports in 1998 and 14.4% of total garment exports from the Caribbean Basin countries.

Since the Caribbean Basin employs some 400,000 workers in the textile industry, the region would have lost an additional 57,000 jobs in this sector in 1998. This gives a good indication of what would have happened if the region had not been placed at a tariff disadvantage since 1994. Mortimore [1999] notes that "*the effect of the North American Free Trade Agreement has been to integrate Mexican industry with that of the United States*", which suggests a strong link between the productive processes of these two countries and, in particular, that firms have relocated their installations to Mexico.

With respect to this issue and to the date on which the Multifibre Agreement expires (2005), Mortimore draws the following conclusion:

"In the few years left before this occurs, the Caribbean Basin garment industry can seek to improve its situation. It should continue to demand NAFTA parity in the US market so that local, national or sub-regional inputs are defined as NAFTA inputs, thus promoting some degree of industrial integration. It should seek opportunities to associate itself with complete package suppliers that have set up in Mexico as a result of NAFTA". (Mortimore, [1999])

V. Conclusions

The Caribbean Basin is a very important import and export market for the United States, especially since trade between the two is favorable to the latter.

The composition of the region's export structure has changed over recent years, thereby boosting the importance of garment products. Moreover, the markets are not dynamic for main non-garment products exported by the countries of the region to the United States, which indicates restrictive demand growth.[20]

The region's most important goods, such as garments, are those that are exported to the United States and are subject to tariffs, since these are excluded from the preferential tariffs of the Generalized System of Preferences (GSP) and the Caribbean Basin Initiative (CBI). The CBI's effective coverage is thus small, since it excludes tariff reductions for garment exports.

Since 1994, the competitiveness of this industry has also been affected by NAFTA's entry into force and, since 1995, by the Mexican devaluation at the end of the previous year. Both factors provoked a fall in the dynamism of those Caribbean Basin exports *viewed as a possible motor of development*, while at the same time Mexican exports began to reveal a high degree of dynamism. Although the recomposition of US clothing suppliers has benefited both the Caribbean Basin and Mexico, the latter has won the largest share of the market lost by Asia.

The tariff differential triggered a clear change in the trend, which was exacerbated by the fall in Mexican dollar wages. It is plain that the Caribbean Basin's market share dropped for the first time in 1998 after years of continuous growth. This is a cause for concern.

The importance of the garment industry for employment means that measures should be adopted to prevent such a sector that is so important for the productive structure from continuing to be affected. This study's conclusions help to identify the effect that this decline in the export dynamism of the Caribbean Basin had on the labor market: in 1998, the creation of some 57,000 jobs might have been foregone in the region for this reason.

A distinction should be made between what this study actually states – at least in its interpretation – and what it does not. It does not argue that garment exports from the Caribbean Basin to the United States fell (in fact they increased) as a result of NAFTA and/or the Mexican devaluation.[21] Nor does it claim that their market share fell, although this is arguable, since there was a slight fall in the share of the Caribbean Basin countries combined in 1998.

This article does, however, argue that the growth of the Caribbean Basin garment sector is being constrained, as an examination of the statistics show, and that the gap with Mexico is widening because of: i) NAFTA (permanent effect) and ii) the devaluation (possibly temporary, although this will depend of the monetary policies adopted by each country). Mexico is thus reaping the obvious benefits of NAFTA, which is partly why it signed the agreement.

The Caribbean Basin, and its entrepreneurs had placed great hope in the development of linkages in the textile-garment sector. Much of the growth expected in the economies of the region could be based on a) export dynamism, winning those markets that the Asian countries were anyway losing (forward); and b) growth of productive linkages (backward) so long as the agreements foreseen by President Bush in the Enterprise for the Americas Initiative(1990), and confirmed by Clinton at the Summit of the Americas (1994), can be concluded.

The new state of affairs brought about by the law that widens the benefits accorded to the countries of the Caribbean Basin cannot be described with a single brushstroke.[22] The following should therefore be noted:

Tariffs and quotas are eliminated for clothing products manufactured with cloth and yarn that is made in United States, and there is allowance for some exports of products manufactured with regional cloth made from US yarn. These latter, however, are subject to quotas. Moreover, a somewhat confused wording stipulates that if the product is cut in the United States some additional processes may be undertaken in addition to assembly, such as pre-washing. If the product is cut in some country of the Caribbean Basin, still with US cloth, value may not be added by means of post-assembly activities. Clearly, all these restrictions, still using US cloth, and excluding non-regional cloth, conspire against the development of the "complete package" – which seems to be the trend at the global level.

At the same time, China's possible accession to the WTO prompts new questions. Although the matter has not yet been decided, and the United States retains the possibility of imposing quotas on China until 2008, the latter country has embarked on a new export offensive in high-quality garments that could even have a negative effect on Mexico. For this reason, Central America should take advantage of the window of opportunity to improve its insertion during the next five years.

Another factor will have a strong influence. In the particular case of the countries of the region, the legislation states that the president of the United States will take all necessary measures to establish an agenda of meetings between the trade ministers of the Caribbean Basin countries and the USTR. The aim is to reach an agreement between the United States and the CBI countries that is mutually advantageous for both sides, and that contains provisions similar to those of NAFTA.

Hence the way is open for these countries to begin negotiations with the US government on an agreement that makes NAFTA parity a reality. If the countries of the region work well on this, it could have a very positive short-term impact (for obvious psychological reasons) on investment and on the restructuring of the garment industry.

Table 1

Composition of US Imports from the Main Caribbean Basin Countries			
	1990	1994	1998
Agriculture	28.2	22.9	20.9
Textiles	0.7	0.6	0.4
Garments	26.6	40.4	49.5
Other industries	44.6	36.2	29.0
Total iindustries	71.8	77.1	79.1
Total	100.0	100.0	100.0

Source: US Department of Commerce (MAGIC).

Table 2

CBI, Mexico and Asia: Evolution of US Market Share of Garment Products, 1990-1998									
	1990	1991	1992	1993	1994	1995	1996	1997	1998
CBI	8.4	10.4	11.3	12.9	13.4	15.0	15.8	17.0	16.6
Mexico	2.8	3.5	3.9	4.3	5.4	7.7	9.9	11.7	13.5
Asia	50.3	49.4	45.6	43.5	40.0	34.6	32.2	30.2	28.2
CBI- Mexico gap	5.6	6.9	7.5	8.5	8.0	7.3	6.0	5.3	3.2

Source: US Department of Commerce (MAGIC).

Table 3

CBI and Mexico: Average Tariffs for Garment Products Entering the United States		
	CBI	Mexico
1990	18.3	18.3
1991	18.3	18.3
1992	18.3	18.3
1993	18.3	18.3
1994	18.3	14.7
1995	18.1	11.2
1996	17.9	7.7
1997	17.7	4.1
1998	17.5	0.6

Source: Prepared by the authors using *The Tariff Schedule of the USA.*

Table 4

Exchange Rate in Some Countries of the Caribbean Basin and Mexico 1990=100								
	Costa Rica	El Salvador	Guatemala	Haiti	Honduras	Nicaragua	Dominican Republic	Mexico
1990	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1991	108.3	98.4	87.9	94.0	107.9	104.6	100.6	91.1
1992	103.2	97.9	86.5	95.9	102.1	105.6	103.1	84.0
1993	103.1	88.3	88.1	114.2	114.3	110.8	102.5	80.1
1994	103.6	82.9	83.6	91.7	126.9	117.8	99.2	82.3
1995	100.0	78.5	79.9	80.8	110.0	123.5	96.3	121.8
1996	99.0	72.3	76.1	68.7	111.7	126.2	90.0	108.4
1997	101.2	72.1	72.2	59.0	105.8	132.1	92.1	94.0
1998	101.9	71.5	72.2	54.6	97.5	134.7	98.9	92.7

Note: The exchange rate is calculated according to the relative share of imports from the main trade partners. An increase denotes a devaluation of the national currency.
Source: ECLAC

Table 5

Cost Structure of the Caribbean Basin *Maquiladora* Industry	
Labor costs	54.2
Rent	6.7
Energy	4.0
Other costs	18.5
Transport	16.6

Source: Gitli [1997] using the case of Costa Rica.

Table 6

Hourly Wages in the Caribbean Basin and Mexican *Maquiladora* Industry
US$/hour in 1996

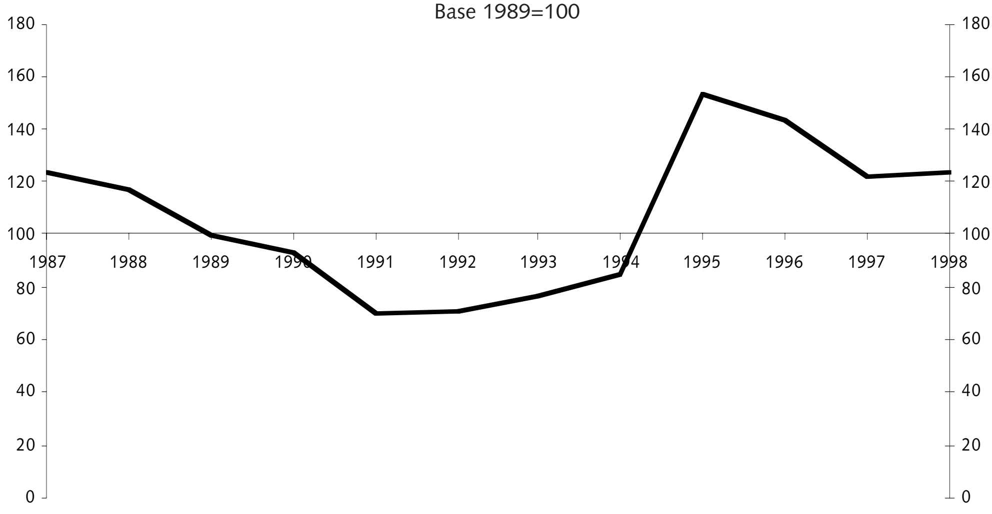
Country	Wage Cost
Costa Rica	2.04
El Salvador	1.22
Guatemala	1.14
Honduras	1.05
Panama	1.80
Dominican Republic	1.49
Mexico (North)	1.22
Mexico (South)	0.95

Source: Gitli [1997], based on table I-13.

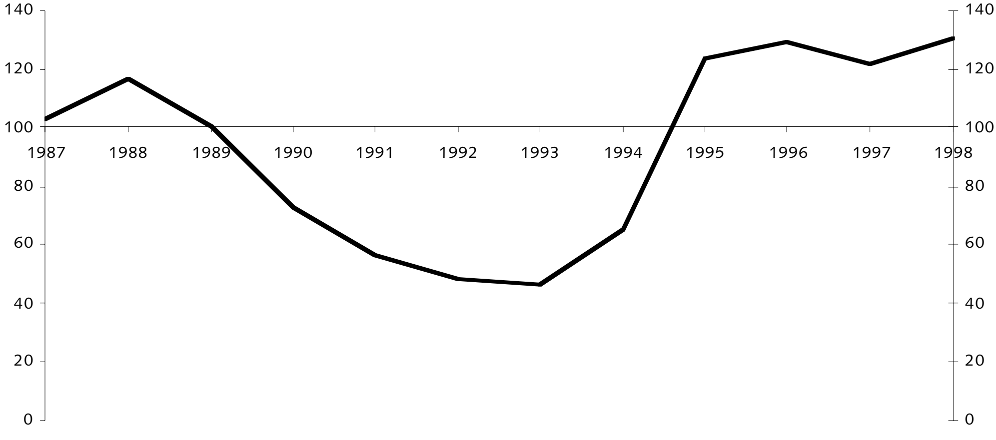
Table 7

Competitive Wages in the Caribbean Basin Countries Compared to Mexico
In US$

Comparative evolution of wages in dollars in Costa Rica
in relation to Mexico 1987-1998
Base 1989=100



Comparative evolution of wages in dollars in
El Salvador in relation to Mexico 1987-1998
Base 1989=100



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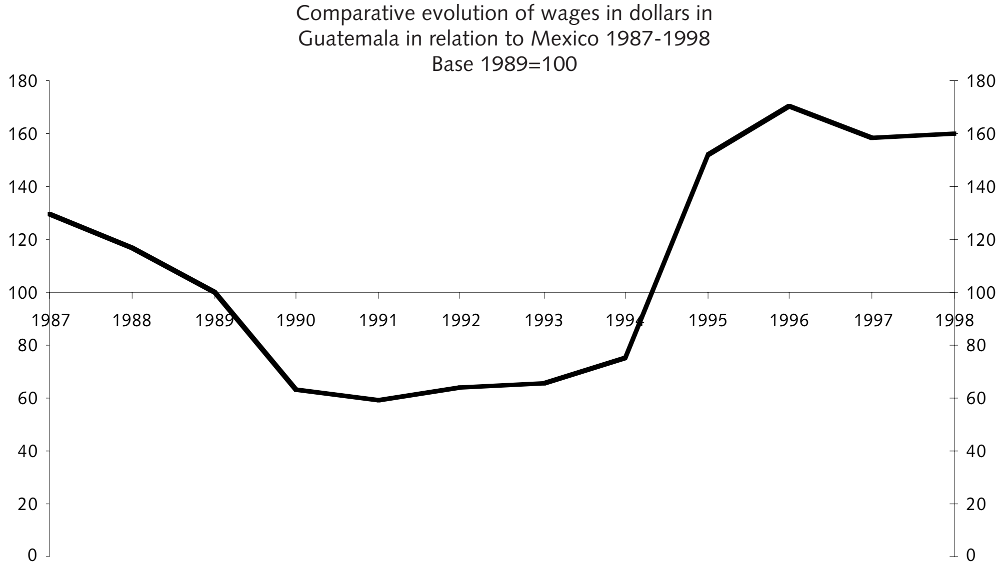


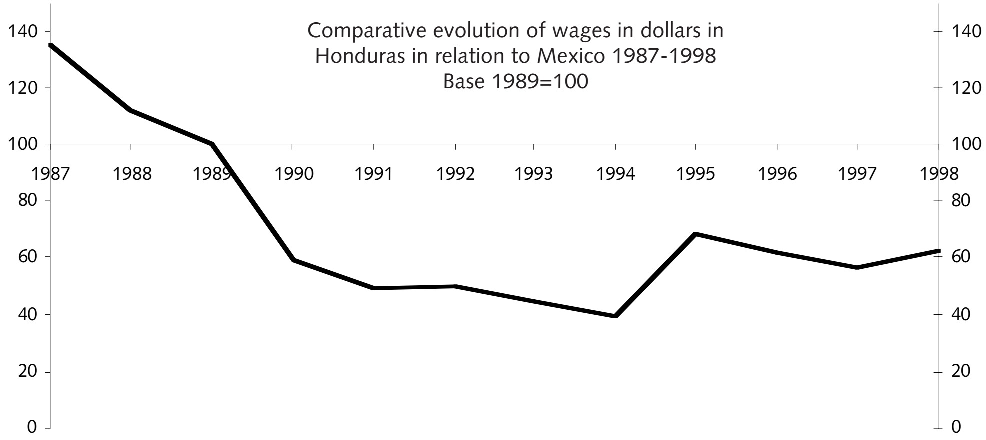
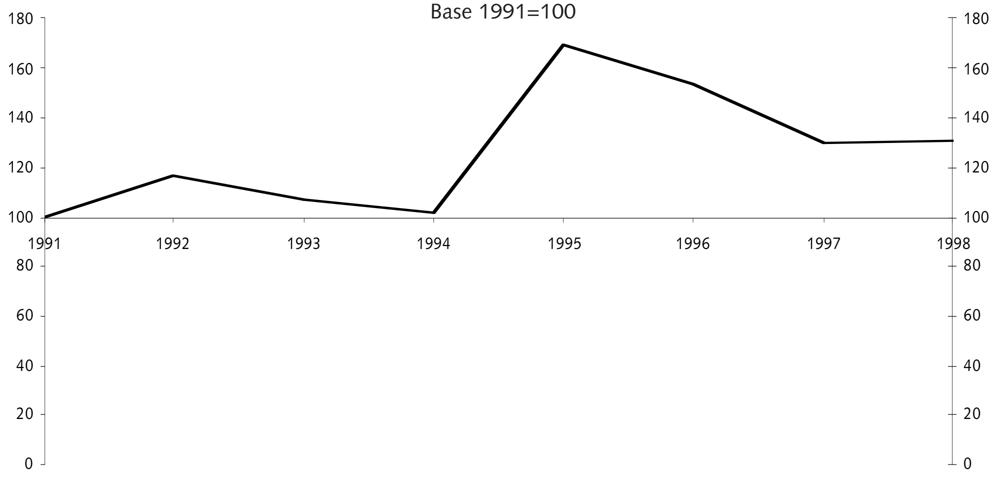
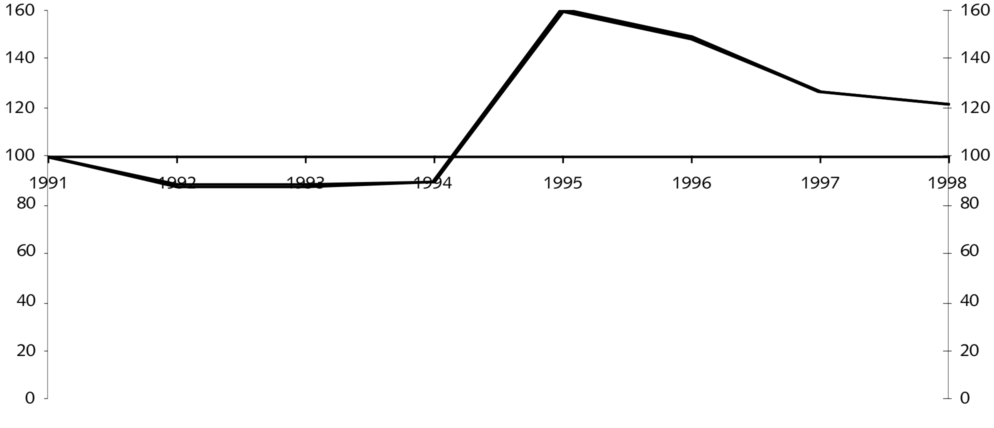


Table 7 (continued)

Comparative evolution of wages in dollars in
Nicaragua in relation to Mexico 1991-1998
Base 1991=100



Comparative evolution of wages in dollars in
Panama in relation to Mexico 1991-1998
Base 1991=100



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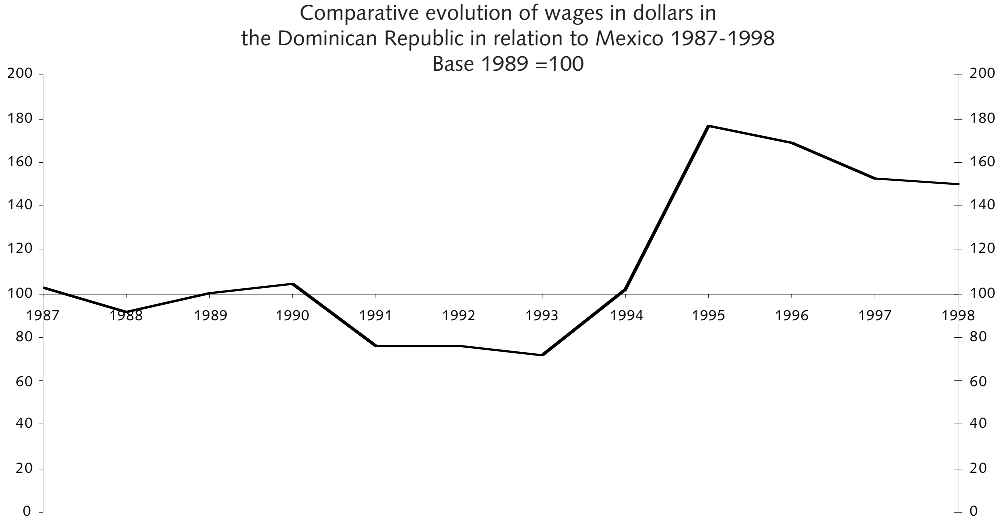


Note: The indicators represent the trends of bilateral salaries in relation to the base year in a specific year and does imply a judgement on relative size. The formula used for constructing the Wage Index is the following:

$$IW_{it} = \left[\left[\frac{W_i t}{W_{mt}} \right] \Big/ \left[\frac{W_{ib}}{W_{mb}} \right] \right]$$

$$Wxy = \left[\frac{Nw}{TNE} \right] \qquad x = i, m \qquad y = t, b$$

Where :

i : each Caribbean Basin Country

m : Mexico

t : Index for each of the years of the variables

b : base year

Nw : Nominal Wage

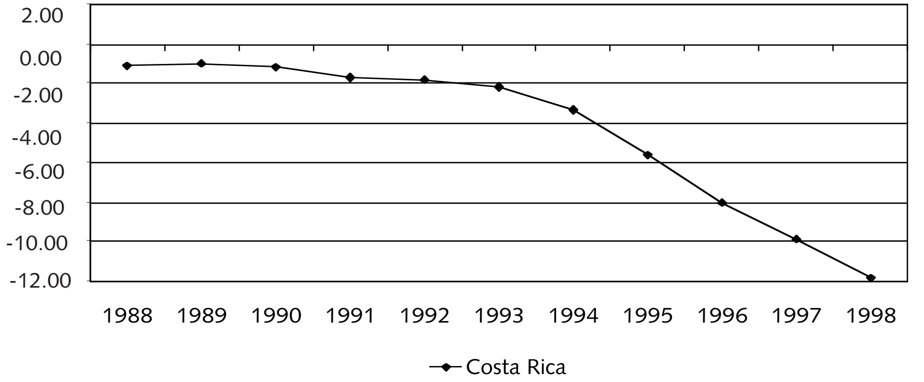
W : Wage in dollars

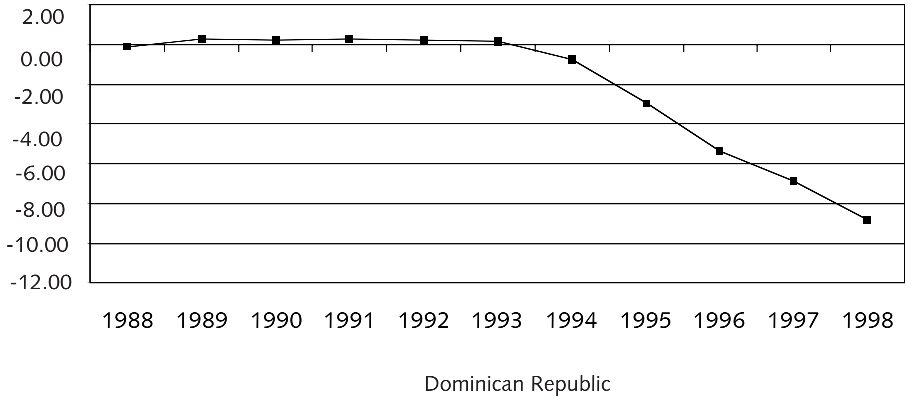
TNE : Type of Nominal Exchange Rate

Source: All the exchange rate data are from the IMF *International Financial Statistics*. Information on salaries are from a variety of sources: Mexico: IMF *International Financial Statistics*; Costa Rica: *Encuesta Anual de Hogares de propósitos múltiples*, DGEC; El Salvador: *Encuesta de Hogares de propósitos múltiples*, MIPLAN; Guatemala: *Instituto Guatemalteco de Seguridad Social*, IGSS; Honduras: Average Incomes according to SIAL-OIT, Panama; Panama: Average Incomes according to SIAL-OIT, Panama; Dominican Republic: index numbers calculated from wage growth rates in the private sector from 1988 to 1991, based on the Martí [1997] document; for the 1991-1996 period the growth rate of hourly income is taken from the Central Bank's *El Mercado de Trabajo*, and for 1997 a rate of 12% extrapolated from wage growth rates in the free zones was applied. Information on the rest of the countries as well as the wages are based on general averages of the economic system.

Table 8

EVOLUTION OF THE MARKET SHARE GAP
MAIN CBI COUNTRIES IN RELATION TO MEXICO





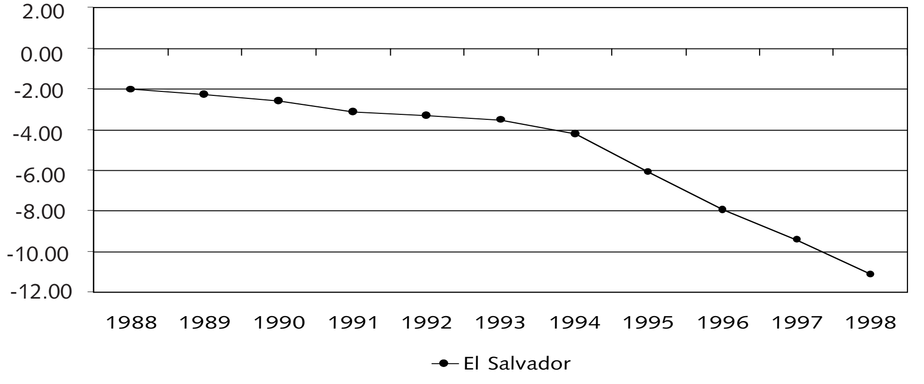
$$SG_{it} = S_{it} - S_{mt}$$

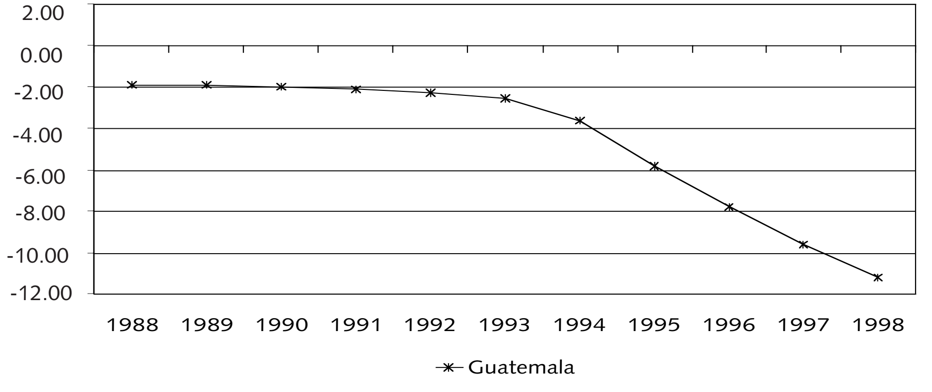
Where:

i corresponds to each country of the Caribbean Basin
m corresponds to Mexico
t corresponds to each of the years

SG_{it} Market share gap of the Caribbean Basin Country iin a specific year
S_{it} Share of the US market of each Caribbean Basin Country
S_{mt} Mexico's share of the US market

Table 8 (continued)





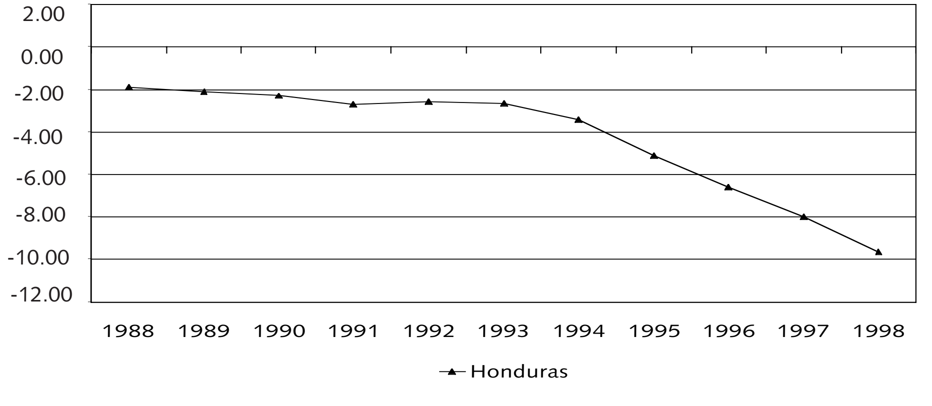


Table 9

Dependent Variable: Share Gap by Country				
Variable	Coefficient	Standard Error	Statistic t	Probability
C	7.59	1.47	5.17	0.00
LOG(TES)	-2.63	0.28	-9.29	0.00
LOG(TGU)	-3.68	0.40	-9.14	0.00
LOG(THO)	-3.13	0.22	-14.02	0.00
LOG(TCR)	-4.09	0.31	-13.07	0.00
LOG(TDR)	-3.65	0.20	-18.10	0.00
LOG(SIES)	-2.66	0.36	-7.38	0.00
LOG(SIGU)	-2.40	0.35	-6.94	0.00
LOG(SIHO)	-2.64	0.38	-6.91	0.00
LOG(SICR)	-2.20	0.35	-6.29	0.00
LOG(SIDR)	-1.70	0.33	-5.08	0.00
R-square	0.98	Statistic F	160.30	
R-Adjusted square	0.97	Probability (Statistic F)	0.00	
Durbin-Watson	1.50	S.E. of regression	0.56	

Note: Since the explanatory variables are expressed in logarithms they can be interpreted in terms of elasticities. T refers to tariff, SI to salary index, ES to El Salvador, GU to Guatemala, HO to Honduras, CR to Costa Rica and DR to the Dominican Republic.

Table 10

Dependent Variable: Market Share (M)				
Variable	Coefficient	Stan. Error	Statistic t	Probability
M(-1)	1.13	0.03	41.64	0.00
RT	-0.08	0.03	-2.59	0.04
R-square	0.93	Durbin-Watson stat	1.67	
R-adjusted square	0.92			

Note: Durbin Watson notes the possible presence of first degree autocorrelation, although tests show there is none. M(-1) corresponds to the autoregressive term of market share and RT to relative tariff.

Notes

[1] In 1997 generated around 400.000 jobs. The figure for total employment includes Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic. For a more detailed description of the importance of this sector on jobs in each of these countries see Gitli [1997]. The share of exports to the United States in the total sales of these countries ranges from 50%, excluding shared production (*maquila*), to 70-75% including *maquilas*.

[2] Other studies on the possible effects of NAFTA include Hinojosa [1994] and De Franco [1994]. For an examination of the results of the studies see Buitelaar [1997].

[3] The concept of market share is flawed, since it only refers to the import share of specific products from one country to another, in this case the United States. Since the import share of the total garment market has been rising, the growth of market share in this particular case could be interpreted in a strict sense.

[4] It has been argued that each country's individual performance should be analyzed, especially in terms of their exports to the United States, and that it could be erroneous to examine the Caribbean Basin countries as a single bloc. Honduras and Guatemala can thus be viewed as winners and Costa Rica and the Dominican Republic as losers (the others have maintained their share). It is clear, however, that even in the case of the losers (in terms of the share of the garment market), extra-regional countries account for this loss.

[5] Textile-garments group together similar products, but garments (chapters 61 and 62 of the Harmonized System [HE]) are more important, since textiles (chapters 50 to 60) account for less than 1% of imports. The Harmonized System is therefore structured as follows:

Chapters of the HS	Products
50 to 63	Textil es–Garments
61 and 62	Apparel

[6] The Caribbean Basin Initiative (CBI) consists of a unilateral concession granted by the United States since 1984 to certain products from the Caribbean Basin countries. Textile-garment products are excluded from these preferences and therefore have to pay tariffs on entering the United States. However, some of these products can enter under the "shared production" scheme, so long as they comply with certain rules of origin. These products have to pay taxes only on the added value. Moreover, the quotas for those products using US cloth are nominal and have little practical application (Gitli [1997]).

[7] Two factors must be taken into account in this respect. First, the clothing sector is important because, although it is "shared production" it is evaluated according to the final

market price. A dollar of coffee imports therefore has the same weight as a dollar of shirt imports. This benefits products with less value added, such as those from the *maquila* sector. Second, US imports from Costa Rica will become distorted over the next few years because of the "Intel effect", by which an industry which employs relatively few people and value added generates enormous export value.

[8] Asia is defined as the four main garment exporters to the region: China, Hong Kong, Taiwan and Korea.

[9] According to empirical evidence, the cost of maritime transport between Asia and the United States is not higher than that paid by the Caribbean Basin countries (INCAE-HIID, 1999). In effect, the difference lies in delivery times, more than in cost, because of the higher frequency of journeys between Asia and the United States. It is also important to consider the time and cost of journeys undertaken by executives and technicians from and to Asian production zones. Some garment exports from these countries are also transported by air and, in this case, the difference between the CBI and Asia is significant.

[10] It is worth noting that the increase in Mexico's growth rate in 1994 was due to NAFTA, since the peso was not devalued until the end of that year. Its effects are therefore not evident until the start of 1995.

[11] In order to assess the size and importance of the tariffs levied on garment products exported by the Caribbean Basin countries to the United States see an ECLAC study that states: "*It is also evident that most tariffs levied by the United States on Central America are overwhelmingly concentrated on the garment chapters: in 1995, the tariffs levied on these chapters accounted for 96% of the total paid, representing more than US$ 280 million for the region. ….*" (ECLAC [1997]).

[12] This tariff corresponds to the average of a basket of the most important products from each of the Caribbean Basin countries, and the respective Mexican tariff.

[13] Chapters 61 and 62 of the Harmonized System.

[14] The tariffs paid by the Central American countries are the same as those paid by the Caribbean countries. This conclusion is therefore applicable to the whole of the Caribbean Basin.

[15] Although the "investment transfer" issue should be examined more closely, there is no doubt that many firms in the region had fewer contracts. The direct effect both of the increase in relative salaries and of relative tariffs was not generalized and continuous company closures, but reductions in production levels. An significant number of contracts might thus have been relocated to countries with relatively lower costs.

[16] It is interesting to note that, with respect to *maquila* wages, there are no official or formal publications on these incomes, and that the type of *maquiladora* and the wages under study account for the difference. Some business associations use the minimum wage as a base, while others also include added social costs. Businesses tend to use "labor cost" figures, which include wages, direct social benefits, and other social benefits that form part of workers' local laws and cultures. Table 6 uses the latter definition, according to information from a transnational company with plants in various countries.

[17] With respect to the evolution of Mexican salaries in 1998, the monthly newsletter of the BANAMEX-ACCIVAL financial group notes that:

"*The unit labor cost (ULC) has increased in parallel with economic growth since 1997, owing to a higher rise in dollar wages than in productivity… This is to be expected after the sudden fall in remuneration in 1995. However, there is a very favorable margin since the unit labor cost stands at 39% below the pre-crisis level*". (August, 1998, p. 324).

[18] The countries included in this analysis are: Costa Rica, the Dominican Republic, El Salvador, Guatemala and Honduras. These are the main regional suppliers of garment products. Excluded from this study are Nicaragua, because production of this type of good only began in 1991-1992, and Panama, because exports of these products are very limited.

[19] Tests were also carried out on the possibility of common coefficients in the whole of the region influencing salaries and tariffs and, as such, being able to obtain more precise conclusions on which variable had the greater influence. It was therefore interesting to examine whether one or both variables were common to all the countries in the region. This was not possible however, since the hypotheses that the coefficients are common cannot be accepted. The influence of the tariff variable on the CBI-Mexico share differential is therefore different in each of the Caribbean Basin countries under study. The same is the case with relative salaries.

[20] The case of Costa Rica is noteworthy, particularly since 1997, when the INTEL company set up operations in the country. INTEL is the world's largest producer of computer microprocessors (especially modular circuits and electric microstructures). As a result of INTEL's operations in the country, Costa Rica's export structure changed significantly between 1997 and 1998. It is worth noting that in 1998 INTEL exported $351 million to the United States (U.S. Department of Commerce, MAGIC), while garment exports to that same market reached $821 million (same source) Total INTEL exports from Costa Rica to all destinations reached $959 million in 1998, and are expected to reach $2.2-2.5 billion in 1999 (according to estimates from INTEL and Costa Rica's Promotora del Comercio Exterior (PROCOMER). This explains how the country's export structure will change in the statistical area. Moreover, these results have been obtained by a company that only employs 2,500 people.

[21] In fact, imports from the Caribbean Basin countries increased from $7.6 billion in 1997 to $8.3 billion in 1998. Their market share fell, however. This means that purchases from the Caribbean Basin countries included in this study increased by less than total US purchases of these products

[22] The authors have undertaken another study on this subject (Gitli and Arce [2000]).

Bibliography

BUITELAAR, RUDOLF. *La competitividad de los países pequeños en el mercado de las importaciones de EE.UU.: Efectos del TLC y la Devaluación Mexicana.* Mexico : ECLAC. 1997.

______________, AND PADILLA, RAMÓN. "Industria Maquiladora y cambio técnico". *Revista de la CEPAL* Nº 67. 1999.

ECLAC. *Las exportaciones de países pequeños en el mercado de EE.UU.: efectos del TLCAN y la devaluación mexicana.* Mexico : CEPAL. 1996.

ECLAC. *Tendencias recientes en el Comercio de Centroamérica: Efectos de los aranceles de EE.UU. en el caso de los Textiles y prendas de Vestir (1990-1995).* Mexico : ECLAC. 1997.

GITLI EDUARDO AND RANDALL ARCE. *Qué significa la ampliación de beneficios para los países de la Cuenca del Caribe?* (to be published in *Capítulos del SELA* Nº 59, 2000).

GITLI, EDUARDO. *La industria de la Maquila en Centroamérica.* San José : International Labor Organization. 1997.

__________. *La rama Textil-Vestuario en la Ronda Uruguay, el TLC de Norteamérica y la paridad para la Cuenca del Caribe*. Managua : UNDP/MEDE/ASDI. 1994.

__________ AND RYD GUNILLA. "Latin American Integration and the Enterprise for the Americas Initiative". *Journal of World Trade*, Vol. 26, N° 4. August 1992.

GRUPO FINANCIERO BANAMEX-ACCIVAL. "Examen de la situación económica de México". *Revista Mensual Nº 873*. Mexico, August 1998.

INCAE-HIID. *Centroamérica en el siglo XXI. Una agenda para la competitividad y el desarrollo sostenible*. Alajuela : INCAE. 1999.

LEAMER, E.; GUERRA, A; KAUFMAN, M AND SEGURA, B. *How does the North American Free Trade Agreement Affect Central America ?* Washington D.C. : The World Bank, Policy Research Working Paper 1464. 1995.

MORTIMORE, MICHAEL. "Industrialización a base de confecciones en la cuenca del Caribe: ¿Un tejido raído?" *Revista de la CEPAL* Nº 67. 1999.

USITC. "NAFTA and U.S. Imports from the Caribbean Basin". *International Economic Review*. September/October 1997.

______. *The Tariff Schedule of the USA.* Washington, D.C. : USITC. 1998.